

**DESIGNING AND ASSESSING THE
FEASIBILITY OF AN ACTIVE LEARNING
APPROACH TO THE TEACHING OF LEGAL
RESEARCH**

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University of KwaZulu-Natal
Information Studies Programme
2008

DECLARATION

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ABSTRACT

This study set out to design and assess the feasibility of an active learning approach to a legal research module. The study was a case study of the second year undergraduate Legal Research Writing and Reasoning (LRWR) module on the Pietermaritzburg campus of the University of KwaZulu-Natal. This module forms part of the basic law degree curriculum.

The author, a subject librarian at the University of KwaZulu-Natal, has been involved with this module for several years. The module is situated within the general lecture timetable and the lecture format is unsuitable for a module such as this one that requires practical work.

Students of law need to have a sound knowledge of the published legal literature because of the particular nature of the role of legal literature in the study of law, the vast array of literature available and the complex presentation of information within the sources of law. Students of law also need to be able to read, understand and apply the law to given situations.

Legal education in South Africa has undergone considerable changes since 1994 alongside those in higher education generally. Since 2001 the LLB degree has become a four year undergraduate degree replacing the old three year undergraduate plus two year post-graduate qualification. New national qualification requirements emphasise a range of skills such as problem-solving, numeracy, computer skills, writing, and finding and using information. This is partly as a means of redressing the differential preparedness of students for university, a legacy of schooling of variant quality that was a feature of Apartheid governance prior to 1994. Thus students are having to complete the law degree in a shortened time period; do not have the benefit of an undergraduate degree before embarking on the law degree, and need to develop competencies in a range of skills and knowledge adjacent to substantive law modules.

Information literacy is a process, an active problem-solving process and an amalgam of skills and knowledge concerned with identifying an information need,

finding, evaluating and using a range of information to answer that need in appropriate ways. The problem-solving nature of the study of law, the new national requirements for a legal education and the characteristics of information literacy suggest that these three elements could be usefully combined in an active learning and teaching process to enable students of law to develop a holistic approach to learning skills and knowledge of legal research, writing and reasoning in the South African context.

The research questions that arose in response to the research problem required an investigation into current research and writing with regard to information literacy, legal education, learning, teaching and assessment and whether an active learning approach was feasible with a large class size of approximately 130 students. The situation in South African law faculties as regards legal research teaching and learning needed to be considered to situate the current study in the broader national context. The literature review enabled the development of a theoretical framework for the LRWR module that took cognisance of a range of national, institutional and classroom climates, aims, objectives, outcomes and content for modules, the study of law, characteristics of learners and factors affecting their performance, teaching strategies, instructional design, assessment and information literacy.

The module itself was designed in terms of a problem-solving situation which encompassed a range of integrated skills in order to manage the problem. An active learning approach was adopted in the form of group and class discussion, with a range of scaffolded written, oral and practical exercises and assignments to help students investigate the problem scenario from a number of perspectives.

The design of the module required data in the form of demographic characteristics and work habits of the students in the class inclusive of learning styles which were acquired through the application of a questionnaire and learning styles inventory. Knowledge and skills with respect to module content were measured in terms of a pre- and post-test. A reflection exercise and focus groups provided evidence about how the students responded to the overall design of the module and in particular the active learning approach.

The data collected and analysed suggested that the integration of information literacy, problem-solving processes with respect to the study of law and active learning was feasible and successful in this large class situation to varying degrees. The students in the module had expanded their repertoire of skills and knowledge, had appreciated the relationship between research, writing, reasoning and discussion and enjoyed the active learning approach.

The contribution this research makes is with regard to the character, design and implementation of information literacy programmes in academic libraries in South Africa in particular, given the dearth of published practitioner research in this country. The research has also provided a comprehensive theoretical and practical framework for developing an information literacy programme within the changing South African legal education context. The research in this specific context usefully provides a baseline from which to develop and promote information literacy as a critical approach within the study of law.

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LIST OF ACRONYMS

AAHE	Association of American Higher Education
ABA	American Bar Association
ACRL	American College and Research Libraries
AFF	Attorneys Fidelity Fund
ALA	American Library Association
ANZIIL	Australian and New Zealand Institute for Information Literacy
CAUL	Council of Australian University Librarians
CHELSA	Committee on Higher Education Libraries of South Africa
DACT	Department of Arts and Culture (South Africa)
EnIL	European Network on Information Literacy
FIRAC	Facts, Issues, Rule of law, Application and Conclusion
HE	Higher education
ICT	Information communication and technology
IFLA	International Federation of Library Associations
IL	Information Literacy
ILS	Inventory of learning styles
IT	Information technology
LAWSA	Law of South Africa encyclopedia
LLB	Legum Baccalaureus, Bachelor of laws
LRWR	Legal research Writing and Reasoning
NORDINFOlit	Nordic countries' information literacy collaboration
SALDA	South African Law Deans Association
SAQA	South African Qualifications Authority
SCONUL	Society of College, National and University Libraries
SPSS	SPSS©
UKZN	University of KwaZulu-Natal (South Africa)
UNESCO	United Nations Educational, Scientific and Cultural Organisation
US	United States

REFERENCING STYLE

This thesis has used the system of footnoting and a list of works cited that is the in-house style taught to the Legal Research Writing and Reasoning class. This style is based on the referencing guidelines adopted by the *South African Law Journal* which the University of KwaZulu-Natal Law Faculty adheres to.

Example: Journal article.

1. Footnote

JS Howland and NJ Lewis. "The effectiveness of law school legal research training programmes." (1990) 40 *Journal of Legal Education* 381.

2. List of works cited

Howland, JS and Lewis, NJ. "The effectiveness of law school legal research training programmes." (1990) 40 *Journal of Legal Education* 381-391.

Example: Book.

1. Footnote

A Holliday. *Doing and writing qualitative research*. (2002) 79.

2. List of works cited

Holliday, A. *Doing and writing qualitative research*. London: Sage (2002).

For electronic formats either of the following is added at the end of the basic details depending on which is relevant:

- a) URL. Accessed: (date)
- b) Online. Name of database. Accessed: (date)

CHAPTER ONE

BACKGROUND TO THE STUDY

This chapter introduces the current research which concerns designing and assessing the feasibility of an active learning approach to the teaching of legal research. The first section briefly outlines four premises upon which the current study was based, the development of information literacy, changes in teaching and learning in higher education and legal research. This is followed by a statement of the problem, purpose of the study and research questions and rationale for the study. The study was undertaken as a case study of the Legal Research Writing and Reasoning module (LRWR module) on the Pietermaritzburg campus of the University of KwaZulu-Natal, South Africa. Some definitions are provided along with a description of the research, ethical aspects and the structure of the thesis.

1.1. INTRODUCTION TO THESIS PREMISES

This thesis is based upon four premises in terms of:

- the need for information literacy in South African higher education institutions because of the particular nature of South Africa's past education policies and practices and current characteristics of higher education
- the changing information environment has not lessened the need for formal information literacy education
- formal information literacy programmes require librarians to be teachers
- librarians need to design and implement information literacy programmes taking cognisance of teaching and learning theory.

Information literacy is a contested concept and practice in terms of definition, characteristics, implementation and assessment and in the South African academic library context is not as well developed as information literacy in other countries. In the last century considerable changes have taken place with respect to the nature of higher education with much attention being given to approaches to learning and teaching. The best methods of learning and teaching legal research are still being

investigated given the complex nature and use of legal sources of information and the particularities of the approaches to studying law. The South African higher education legal education environment has undergone dramatic changes in the past 15 years necessitating a rethink in terms of the incorporation of a range of 'lawyering' skills alongside substantive modules.

1.1.1. PREMISES UPON WHICH THE THESIS IS BASED

This thesis adopts certain premises. The first is that formal information literacy programmes in the South African higher education context are appropriate and necessary. The history of variant quality schooling for different race groups, with a largely rote-learning focus and general absence of good school libraries¹ has meant that many students are under- or unprepared for the particular rigours of university academic education. The traditional lecture situation still dominates the university undergraduate teaching landscape and there is heavy reliance on the textbook, lecture notes and 'Academic Reserves' material. The generally unfavourable ratios between academic staff and students² results in the precedence of largely summative assessment methods. Thus inherent familiarity with and critical use of academic literature in particular is often fairly limited at the undergraduate level.³

The simplest research process or the component, the literature review, cannot be taught in isolation from the surrounding interlocking skills and knowledge of critical thinking, reading, writing, and citation. The acquisition of requisite skills and knowledge needs to be incremental, scaffolded, practised and applied. The legal literature in particular is complex and the nature of the different sources and where and how they fit into the process of gathering evidence to substantiate an argument is a learned skill and not necessarily intuitive.

¹ SM Naicker. *Curriculum 2005: a space for all: an introduction to inclusive education*. (1999) 21; K Nyamapfene and M Letseka. "Problems of learning among first year students in South African universities." (1995) 9(1) *South African Journal of Higher Education* 163-166; DACT. Draft report of the Interministerial Group on the Library and Information Services (LIS) function, National Level, (1996) sect. 2.4.2.

² JD Jansen. "On the state of South African universities." (2003) 17(3) *South African Journal of Higher Education* 11.

³ K Nyamapfene and M Letseka. "Problems of learning among first year students in South African universities." (1995) 9(1) *South African Journal of Higher Education* 163-166; A Mji. "What influences students to university education? Insights from the horse's mouth." (2002) 16(2) *South African Journal of Higher Education* 166-167.

It could be argued (see section 2.1.6) that much instruction by South African librarians is in fact still focused on the skills of use of sources and retrieval of information rather than the broader spectrum of process, knowledge and skills and experience implicit in an information literacy approach as outlined in section 2.1.2.1. A paradigm shift in thinking, planning, teaching and learning and assessment activities is required for any information literacy programme to be developed.

The second premise is that the immediacy and vastness of fee-based and free electronic resources does not preclude the need for formal information literacy instruction and in fact heightens the imperative to make students aware of the nature and use of these different resources, how to evaluate them, the process of research and the ethical considerations around the use of ideas. Experience with teaching students has shown that there is currently a general disconnect between the usability of academic electronic resources and that of free Web tools such as search engines. The application of Web 2.0 technologies and the availability of facilities such as federated searching are both addressing this disconnect to some degree. It is not within the scope of this thesis to debate whether the imparting of information literacy skills and knowledge are better served by computer aided instruction or the traditional face to face method.

The third premise is that librarians do actually teach information literacy (hereafter referred to as IL) as opposed to merely train in the use of resources, in the context of the current definition of information literacy. The American Library Association's (hereafter referred to as the ALA) definition of IL as being able to recognise an information need, know where to go to find information and how to evaluate and use information for a particular need,⁴ indicates quite clearly that the critical thinking skills and processes necessary to be information literate are more than the gambit of training.

The fourth premise is that IL teaching by librarians needs to be as much informed by teaching and learning theory as other formal educative situations and instructional design should inform all information literacy programme development

⁴ American Library Association. *ALA definition of information literacy*. (1989). www.ala.org. Accessed: 13.7.2004.

1.1.2. THE PROGRESSION FROM LIBRARY INSTRUCTION TO INFORMATION LITERACY

Library or bibliographic instruction as it was called prior to the adoption of the concept of IL, has enjoyed a long history in academic libraries.⁵ The goal of library instruction has broadly been to educate users about the range and use of information sources in order to meet specific information needs particularly in the academic context. Skills and knowledge to be learnt are generic as well as context specific, mechanical and cognitive. Library instruction has been undertaken with varying degrees of success:

Recognising that students and faculty need to learn to access, evaluate, and use information effectively and efficiently, academic librarians have been offering bibliographic instruction in the form of library orientation, library use instruction, information resources use, and a broad range of information literacy skills for sometime.⁶

Library instruction and IL are inherently practical although involve higher order critical thinking. Skills once learned need to be applied and transferable to a range of situations. This has not however been easy to implement in practice. There is also an indispensable critical thinking component in terms of 'when', 'where', 'what', 'how' and 'why' to find and use information. As the literature review reveals (Chapter two), librarians are still searching for the best methods of library instruction.⁷ They are constantly employing new methods of instruction and taking cognisance of developments in educational research, in order to not only produce meaningful programmes, but to justify to parent institutions time allocations and the necessity for such programmes. The advent of the Internet has by no means replaced the need for library instruction; in fact many librarians would argue that the need for library instruction is greater now than ever before.⁸

⁵ S Behrens. "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 309-322; S Andretta. *Information literacy: a practitioner's guide*. (2005) 6-8; ES Grassian and JR Kaplowitz. *Information literacy instruction: theory and practice*. (2001). Ch 13; AP Young and EB Brennan. Bibliographic instruction: a review of research and applications. In: Lubans J. *Progress in educating the library user*. (1978) 13-28.

⁶ MB Eisenberg, CA Lowe, and KL Spitzer. *Information literacy: essential skills for the information age*. 2nd ed. (2004) 129.

⁷ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220-230, puts this most bluntly.

⁸ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220-230.

Writing about library instruction and the recognition of librarians as educators has been taking place for well over 100 years.⁹ The major shift in thinking towards an information literacy paradigm for library instruction however is relatively recent.¹⁰ Library instruction has evolved from teaching how to use a particular library and its resources to teaching access to and evaluation of information in a variety of media that know no physical boundaries. Online and electronic information and the development of large electronic information networks have been largely responsible for this shift.¹¹ The information explosion and the huge and ever burgeoning choice of information sources makes it ever more critical for users to be able to find and then evaluate and use information for a particular purpose. IL reflects a paradigm shift to focusing on the learner constructing knowledge and developing cognitive skills and applying these across a range of unrelated real life situations, embracing information from a wide variety of sources and places. Martin and Rader¹² indicate that IL is inclusive of:

library literacy, media literacy, computer literacy, internet literacy, research literacy and critical thinking skills....critical thinking requires that information, regardless of type of media, must be analysed critically in reading and thinking.

Lloyd's¹³ broad definition of information literacy tries to encapsulate this:

Information literacy is ... a constellation of competencies that engage the synchronous and serial applications of a range of perceptual, cognitive skills and process skills that together constitute a way of knowing.

⁹ M Lorenzen. *A brief history of library instruction in the United States of America*. (2002). <http://www.libraryinstruction.com/lihistory.html>) indicates that Melville Dewey was probably the first writer about the role of librarian as educator in 1876. Accessed: 19.5.2005.

¹⁰ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220; HB Rader. "Information literacy 1973 – 2002: a selected literature review." (2002) 51(2) *Library Trends* 242; S Behrens. "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 309-322; EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220-230. In South Africa, the latest text is that by Bothma: T Bothma. *Navigating information literacy: your information society survival toolkit*. (2008).

¹¹ MB Eisenberg, CA Lowe and KL Spitzer. *Information literacy: essential skills for the information age*. 2nd ed. (2004) 130.

¹² A Martin and HB Rader. *Information and IT literacy: enabling learning in the 21st century*. (2003) 26-27. They are supported by authors such as MB Eisenberg, CA Lowe and KL Spitzer. *Information literacy: essential skills for the information age*. 2nd ed. (2004) 3-12.

¹³ A Lloyd. "Information literacy: the meta-competency of the knowledge economy? an exploratory paper". (2003) 35(2) *Journal of Librarianship and Information Science* 88.

Bruce¹⁴ defines IL more specifically and as a learning experience as:

the ability to access, evaluate and use information...this description is based on the view that IL is an amalgam of skills, attitudes and knowledge...it is a way of learning, or a conglomerate of ways of experiencing information. It is generally seen as pivotal to the pursuit of lifelong learning, and central to achieving both personal empowerment and economic development.

There has been much debate over the past twenty years concerning the definition and content of IL¹⁵ although Owusu-Ansah¹⁶ indicates that there is more consensus than disagreement. He indicates that in particular for librarians, the problem of 'absence of a clear line of action and the will and practical change to implement it' is the issue rather than consensus about a definition. Although library instruction has progressed along a continuum from the where and what of information sources to a more problem solving critical thinking approach,¹⁷ much of the latter approach is unevenly developed in the academic library because of the constraints imposed by lecture timetables, large classes and lack of time allocation. The need to develop critical thinking skills is an integral part of IL. The emphasis for the information searcher is, according to the ALA definition, on being able to recognise an information need, to know where to go to find information and how to evaluate and use information for a particular need. It has been argued that academic librarians are in a unique position to teach IL because:

one of the valuable aspects of a library is that libraries are not organised along course lines. ...out on the job, a problem is just a problem...we should reinforce in students the notion that learning is not really related to courses...¹⁸

Some¹⁹ argue however, that most IL is taught within specific subject contexts and the transfer of knowledge or IL skills is not guaranteed. Some educationists would

¹⁴ C Bruce. Information literacy. In: Feather, J and Sturges, P. *International encyclopedia of information and library science*. 2nd ed. (2003) 261-263.

¹⁵ S Behrens. "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 309-322; MB Eisenberg, CA Lowe and KL Spitzer. *Information literacy: essential skills for the information age*. 2nd ed. (2004) 3 -11; H Rader. Information literacy: a global perspective. In: Martin, A and Rader, HB. *Information and IT literacy: enabling learning in the 21st century*. (2003) 26- 27.

¹⁶ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220.

¹⁷ C Kuhlthau. "An emerging theory of library instruction." (1987) 16(1) *School Library Media Quarterly* 5-31.

¹⁸ PS Breivik and EG Gee. *Information literacy: revolution in the library*. (1989) 7.

¹⁹ A Lloyd. "Information literacy: the meta-competency of the knowledge economy? an exploratory paper." (2003) 35(2) *Journal of Librarianship and Information Science* 88. This is supported by others: PS Breivik

argue that knowledge only becomes knowledge when contextualised, and understanding and application lead to transferability.²⁰

1.1.3. CHANGES IN TEACHING AND LEARNING APPROACHES AND THEIR IMPACT ON IL

Over the past few decades the changing nature of education and assessment and the technological environment in particular has impacted on library instruction for a number of reasons.²¹ The traditional lecture method at university and the summative examination process is seen as unsuitable for deep learning that requires an active learning approach. Increasing cognisance is being taken of ways in which learners learn in terms of learning styles and approaches, prior knowledge and the range of abilities and characteristics that learners bring to the learning situation.²² This has included acknowledgement of the need for an active learning approach to learning and teaching activities and the development and employment of constructivist thinking which librarians are embracing.²³ The development of standards encompassing performance objectives and outcomes and assessment can be viewed as both helping this change as well as hindering it.

A growing concern about IL by librarians in particular, is assessment. Assessment is reflected in those IL standards that exist²⁴ and the changing focus is on multiple forms of appropriate and authentic assessment in terms of student learning.

Assessment is not merely a form of measurement.²⁵ Assessment should reflect

and EG Gee. *Information literacy: revolution in the library*. (1989) 23; K de Jager and M Nassimbeni. "An exploration of the current status of information literacy tuition in South African tertiary institutions and proposals for curriculum design." (2003) 69(2) *SA Journal of Library and Information Science* 108.

²⁰ J Bruner. *The process of education*. (1960) 43-45; PA Alexander, DL Schallert and VC Hare. "Coming to terms: how researchers in learning and literacy talk about knowledge." (1991) 61(3) *Review of Educational Research*; RE Mayer. Designing instruction for constructivist learning. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 146; J Biggs. Teaching for quality at university. (1999) 40-42.

²¹ A huge body of literature exists on these areas – see literature review in Chapter 2.

²² J Biggs. *Teaching for quality at university*. (1999) 11-52; PK Murphy and PA Alexander. *Understanding how students learn: a guide for instructional leaders*. (2006); D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002); ES Grassian and JR Kaplowitz. *Information literacy instruction: theory and practice*. (2001) Ch 6.

²³ S Andretta. *Information literacy: a practitioner's guide*. (2005) 14-18; ES Grassian and JR Kaplowitz. *Information literacy theory and practice*. (2001) Ch 6; A Martin. Towards e-literacy. In: Martin, A and Rader, H. *Information and IT Literacy: enabling learning in the 21st century*. (2003) 3-21.

²⁴ see Ch 2: 2.1.7.3.

²⁵ D Bound. Assessment and learning: contradictory or complementary? In: Knight, P. *Assessment for learning in higher education*. (1995) 35-48; ES Grassian and JR Kaplowitz. *Information literacy instruction: theory and practice*. (2001).

learning outcomes and begs an instructional design approach to the development of IL programmes if appropriate assessment is to be incorporated. Changes to library practices have been slow in some instances and assessment is often difficult. Thebridge and Dalton²⁶ indicate that whilst there exists a wealth of literature on evaluation and performance measurement, 'practical means of assessing learning and teaching are not really clear' nor straightforward. According to them²⁷ assessment challenges include gathering and managing meaningful data and using qualitative and quantitative data: 'Outcomes assessment is still an imprecise art.'²⁸ Over the past few decades the increasing focus on the concept of IL that incorporates evaluation and use and knowledge of sources has challenged librarians to rethink their role with regard to IL, teaching and assessment approaches.

IL developments with regard to libraries in higher education have produced standards such as those developed by the Association of College and Research Libraries (ACRL)²⁹ in 2000. These standards focus on the implementation of concepts of IL in particular. The performance indicators, associated outcomes and standards may appear somewhat mechanistic as critical thinking competencies are not necessarily measurable but these standards are important as a framework for developing any IL programme and are based on sound pedagogical principles. Critically, they give prominence to assessment. Similar standards have been produced in other countries.³⁰

Developments in educational research over the past fifty years indicate growing interest in the nature of learning, in particular learning styles;³¹ approaches to

²⁶ S Thebridge and P Dalton. "Working towards outcomes assessment in the United Kingdom academic libraries." (2003) 35(2) *Journal of Librarianship and Information Science* 93.

²⁷ S Thebridge and P Dalton. "Working towards outcomes assessment in the United Kingdom academic libraries." (2003) 35(2) *Journal of Librarianship and Information Science* 95-96.

²⁸ S Thebridge and P Dalton. "Working towards outcomes assessment in the United Kingdom academic libraries." (2003) 35(2) *Journal of Librarianship and Information Science* 102.

²⁹ ACRL *Information literacy competency standards for higher education*. (2000). <http://www.ala.org/ACRL/Printer.cfm?Section=acrlistandards&Template=/C>. Accessed: 14.12.2004; P Hernon and RE Dugan. *An action plan for outcomes assessment in your library*. (2002).

³⁰ see Ch. 2: 2.1.7.3.

³¹ F Coffield ... e al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review* (2004); ES Grassian and JR Kaplowitz. *Information literacy theory and practice*. (2001) Ch 4; DW Tileston. *10 best teaching practices: how brain research, learning styles and standards define teaching competencies*. (2000).

learning by students,³² diversity of student backgrounds and characteristics of student learners.³³ Despite the quantity of research with respect to these factors, exact measurement of their impact remains elusive although these factors are considered important in effective teaching. Alongside this has been research into teaching activities and active learning and constructivist approaches which are increasingly promoted as an alternative to the passive reception model of learning by students in many higher education situations. IL literature reveals a growing interest in application of teaching and learning theory and the IL paradigm by implication, requires an active learning and teaching approach (see Chapter two).

The current South African university student body is extremely diverse in terms of language, race, culture, quality of schooling and socio-economic backgrounds.³⁴ Between 1993 and 1999, after the demise of Apartheid, black African student enrolments in higher education institutions increased by 80%. As discussed in the introduction to this chapter (1.1.1.), many of these students come from poorly resourced schools often with inadequate or no libraries. Students from a wide variety of countries around the world attend South African universities. The 2006 (latest) annual report of the University of KwaZulu-Natal (hereafter called UKZN) indicated that 49% of the student population was black African with 57% of these being females.³⁵ All these factors impact on the nature of learning and teaching and makes inclusion of IL at university essential and calls for a re-examination of teaching and learning activities at university.³⁶

³² F Marton and R Saljo. "On qualitative differences in learning: outcomes and process." (1976) 46 *British Journal of Educational Psychology* 4-11; J Biggs. *Teaching for quality at university*. (1999) 11-32.

³³ KB Gerdy. "Making the connection: learning style theory and the legal research curriculum." (2001) 19(3/4) *Legal Reference Service Quarterly* 71-93; N Entwistle and P Ramsden. *Understanding student learning* (1983); H McCarty and F Siccone. *Motivating your students: before you teach them you have to reach them* (2001); M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers." (2002) 72(2) *Review of Educational Research* 131-175.

³⁴ JD Jansen. Changes and continuities in South Africa's higher education system, 1994 to 2004. In: Chisholm, L. (ed.) *Changing class: education and social change in post-Apartheid South Africa*. (2004) Ch. 11; International Education Association of South Africa. *Study South Africa 2005*. www.studysa.co.za . Accessed: 12.09.2005.

³⁵ University of KwaZulu-Natal. *Annual Report 2006*. (2008) 6. <http://www.ukzn.ac.za/publications/2005annualreport.pdf>. Accessed: 12.6.2006.

³⁶ JD Jansen. "On the state of South African universities." (2003) 17(3) *South African Journal of Higher Education*. 9-12; A Mji. "What influences students to university education? Insights from the horse's mouth." (2002) 16(2) *South African Journal of Higher Education* 166-7; K Nyamapfene and M Letseka. "Problems of learning among first year students in South African universities." (1995) 9(1) *South African Journal of Higher Education* 159-167.

A review of the literature, particularly the *South African Journal of Higher Education* indicates that over the past 20 years in particular, South African universities have been developing intervention programmes and researching the problems faced by students, as well as alternative methods of teaching in order to take cognisance of these challenges facing the institutions and their learners. At the current time, a sub committee of the Committee of Higher Education Libraries of South Africa (CHELSA), is reviewing the status of IL in the country's tertiary sector libraries. A concern of this author who was part of the original CHELSA teleconference in April 2007, of representatives from the various academic tertiary institutions, was that IL, in her opinion is being used as a 'catch phrase' to describe 'anything libraries do to help users' which includes tours and displays and verbal presentations to classes. IL is not being interpreted in the manner described above, and this concern has been shared by others. It was apparent from that teleconference that there is great diversity within the country in terms of the development of IL programmes.

De Jager and Nassimbeni³⁷ note the diverse nature of IL attempts in South African higher education institutional libraries. The South African Qualifications Authority (SAQA)³⁸, with whom all qualification and modules must be registered and approved, has several generic outcomes embedded in all programmes. These include learners being able to collect, analyse, organise and critically evaluate information, identify and solve problems and communicate effectively. They noted that competencies in these outcomes cannot be presumed in the South African context for the above mentioned reasons particularly concerning poor schooling. This presumption creates an imperative for IL training. De Jager and Nassimbeni reported on a study of IL in South African tertiary institutions and found that there was little evidence of institutional strategic plans incorporating IL initiatives, and the nature of IL education was varied and included both generic and subject specific initiatives. Their study also indicated commonality as regards core competencies for IL; much IL activity within libraries was not published and there was agreement that integration of IL within subject modules was desirable.

³⁷ K de Jager and M Nassimbeni. "An exploration of the current status of information literacy tuition in South African tertiary institutions and proposals for curriculum design." (2003) 69(2) *South African Journal of Library and Information Science* 108-114.

³⁸ SAQA was established by The National Qualifications Framework Act of 1995.

1.1.4. LEGAL INFORMATION LITERACY

Law librarians have struggled with the same problems as other academic librarians in terms of the 'what' and 'how' of good information literacy teaching and learning.³⁹ The same arguments for a combination of generic and context specific skills apply to legal research. The study of law is still based largely on the study of case law as it is here that the law is analysed, legal principles found and developed, and applied practically to solve problems, and thus developed. The case-based nature of the study of law means following precedent (see 2.2.2.) when applying the law. Thus, being able to access, use, evaluate and apply information, from a range of resources fundamental to the discipline in the first instance, to particular situations is essential. Critical thinking skills relating to the above are inextricably bound up with reading and writing.

Teaching legal research is complicated by the debate within the legal profession concerning whether it is the role of university law schools to teach 'lawyering' skills, what constitutes these skills, how this should be done and by whom.⁴⁰ The core approaches to teaching legal research by librarians have been hotly debated in particular by Berring and Vanden Heuvel and the Wrens.⁴¹ In a 1988 article⁴² the Wrens critiqued the legal research approach by North American law librarian Frederick Hicks.⁴³ They argued that Hick's approach which focused on the bibliographic method of teaching legal research was inadequate. This method deals with the characteristics of the published sources of law which, they claimed, fails to approach legal research as a process. It fails to help students understand where, when, why and how legal publications assist in problem-solving. They argued that legal research can only be successfully taught as a process where the legal sources are an integral part of research strategy. Berring and Vanden Heuvel responded by

³⁹ P Callister. "Beyond training: law librarianship's quest for the pedagogy of legal research education." (2003) 95(1) *Law Library Journal* 21-42; KB Gerdy. "Teacher, coach, cheerleader, and judge: promoting learning through learner-centred assessment." (2002) 4 *Law Library Journal* 59- 89; GL Hill, D Sears and L Lyman. *Teaching legal research and providing access to electronic resources.* (2001).

⁴⁰ P Lysaght. *Erasing lines: integrating the law school curriculum: proceedings from the 2001 ALWD Conference held at University of Minnesota.* (2002); J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies.* (2003) 901-919.

⁴¹ R Berring and K Vanden Heuvel. "Legal research: should students learn it or wing it?." (1989) 81 *Law Library Journal* 431 – 449; C Wren and J Wren. "The teaching of legal research." (1988) 80(7) *Law Library Journal* 7 -61. This debate is dealt with more fully in Chapter 2: 2.2.3.

⁴² C Wren and J Wren. "The teaching of legal research." (1988) 80(7) *Law Library Journal* 7 -61.

⁴³ The author was unable to locate a copy of this article: F Hicks. "The teaching of legal bibliography." (1918) 11 *Law Librarian* 1-8.

arguing that the Wrens had misinterpreted and trivialized Hick's bibliographic method and that he had not advocated mere descriptive knowledge of sources of law. They also indicated that the focus on the process method of teaching legal research would lead to a tunnel vision view of legal research when students needed to see the big picture. They argued that Hicks did in fact expound an integrated method that involved knowledge of the published sources as well as how to use them in the process of problem-solving. They indicated that legal research was best undertaken in the second (post-graduate) level of law school and that multiple classes were needed. Berring and Vanden Heuvel proposed that law students needed to understand 'the principles and structure and design of the legal research systems',⁴⁴ and the design and purpose of research tools in order to be able to evaluate and effectively use the information found. For them, the best way for students to develop research skills and understand the process, is to undertake a pathfinder.⁴⁵ They also argued that the failure of law librarians to teach legal research effectively has little to do with the method and more to do with the failure of law schools to appreciate the importance of legal research and accord it appropriate time within the curriculum.

The appropriate nature of legal research instruction since the debates in the late 1980s, has not been consolidated although Callister⁴⁶ advocates the need to develop appropriate frameworks and take cognisance of factors such as learning styles. Clinch⁴⁷ has formulated a comprehensive legal research programme in the United Kingdom with detailed knowledge, skills and competencies and methods of delivery. The skills of legal research are generally acknowledged as being fundamental to the study of law and students need formalised instruction in them.⁴⁸ Almost all university law schools in South Africa teach some form of legal research at various levels (see 2.2.7.). Given the rapid changes in law, and its effect on the

⁴⁴ R Berring and K Vanden Heuvel. "Legal research: should students learn it or wing it?." (1989) 81 *Law Library Journal* 443.

⁴⁵ A pathfinder is a systematic search through a wide spectrum of literature on a given topic, the end result being a bibliography.

⁴⁶ P Callister. "Beyond training: law librarianship's quest for the pedagogy of legal research education." (2003) 95(1) *Law Library Journal* 7-45.

⁴⁷ P Clinch. *Teaching legal research*. (1999). www.ukcle.ac.uk. Accessed: 8.05.2004.

⁴⁸ This debate is covered in the literature review Ch.2:2.2.4. Noted authors are P Lysaght. *Erasing lines: integrating the law school curriculum: proceedings from the 2001 ALWD conference* (2002); J Bell. *Legal education In: Cane, P and Tushnet, M. Oxford handbook of legal studies* (2003); P Birks. *What are law schools for?* (1996).

publication of information and thus the need to be up to date, an IL paradigm may be a more appropriate approach for legal research instruction given the inextricable link between sources of information and the study and practice of law.

Law students need to be competent finders and users and evaluators of legal information and resources. This is necessary because the law is constantly changing. Authority, such as cases and statutes, which form the backbone of substantiated argument, are prolific in number and recorded in a variety of literature. Failure to have the latest information at one's fingertips affects the outcome of a situation that could be at least very expensive. Legal practitioners are ethically bound to provide the best service to their clients. Law school education tends to provide a core of substantive knowledge in law and some associated practice skills. This however is insufficient (see section 1.5.3). Although much of the practice of law is procedural and thus rule based, it is vital that the practitioner be able to locate a broader base of relevant law when necessary. Due to timetable and other pressures, substantive courses at university do not systematically provide sufficient knowledge of, and reinforced practice in, the retrieval and usage of legal information sources. Much of this takes place within subject specific contexts which, whilst contextualising legal research, does not necessarily provide sufficient time or opportunity to appreciate the nature and spectrum of legal research.

At the University of KwaZulu-Natal, a stand alone, credit bearing module called Legal Research, Writing and Reasoning (see appendix one for template), compulsory for all second year undergraduate law students as well as students from other degrees majoring in Legal Studies, has been in existence for some years now and exists to focus on the broader legal research process. It has been taught in a variety of ways. The title of this module, which changed with effect from 2005, acknowledges a package of activities and cognitive skills that could best be described as legal information literacy. Such a module requires attention being given to process as well as product. Despite the name change, exactly what such a module should comprise, is not clear from the Law Faculty's perspective. This lack of clarity has left the door open for development of the module from an IL perspective by the author.

Practical work and reflective activities are vital if students are to benefit from such a module. The lecture situation in which over 130 full time students participate, is unsuitable for practical and reflective work and much practical work needs facilities such as libraries and computer laboratories. Lecturing on process and the nature of sources is of little value without a 'hands on' approach. Legal research is a process that requires active participation and reinforcement and the teaching of such a module requires a variety of activities to enhance learning. Library staff have been largely responsible for the module for five years now and as class numbers have increased, the problem of providing effective legal information literacy has increased. The existing problems with the module, along with the fact that a new curriculum embedded in a new mission and vision⁴⁹ of the Faculty of Law exists since the University of KwaZulu-Natal came into existence following on from a merger of two institutions (see Ch.2: 2.2.7.), means that the new legal research module must align itself with this mission and vision. The Legal Research, Writing and Reasoning module needed to be reconceptualised and redesigned to take cognisance of:

- a new mission, vision and values of the new University of KwaZulu-Natal
- an information literacy paradigm
- appropriate teaching and learning activities given the large numbers of students
- appropriate teaching and learning activities that would facilitate authentic and deep learning in a lecture situation
- appropriate methods of assessment and module evaluation.

This resulting module, called Legal Research, Writing and Reasoning is an eight credit module, or eighty notional study hours (generally modules are allocated eight, twelve or sixteen credits). The challenges that the module presents are:

- how to develop and design the module within an information literacy paradigm
- finding the right allocation of time between the range of skills in the module that is situated in a rigid lecture structure

⁴⁹ University of KwaZulu-Natal. Faculty of Law. *Mission statement and vision*. (2005) <http://law.ukzn.ac.za/MissionStatementandVision5800.aspx>. Accessed: 6.09.2005.

- how effectively can an active learning approach within this rigid lecture environment be achieved
- how best to undertake the module, designed as above, with large classes
- how to accommodate the range of learners within and without the LIB degree programme
- what teaching and assessment activities are most appropriate for an active learning approach within the constraints of the lecture structure.
- how best to collaborate with mainstream modules.

The undergraduate nature of the law degree in South Africa (see Ch.2: 2.2.7.) has meant that new students do not have the benefit of an undergraduate education before entering law school. In their first year the students deal with some substantive knowledge (the extent of the substantive component varies between law schools) and need the requisite skills to manage that knowledge within the legal context. This they often do not have because of the considerable teaching and learning differences between school and university and the lack of exposure in dealing with a range of material. The 'quantum leap' between the first and second years of study at the University has been of sufficient concern for the Law Faculty to have sought external funding to contract an academic support coordinator to investigate the problems and negotiate interventions and extra classes to support learning and teaching. The second year was the intended focus but first year is being investigated as well.

1.2. RESEARCH PROBLEM

The research problem investigated in this study has three components:

1. The student of law needs formal teaching in legal research for four main reasons:
 - apart from the fact that the published legal literature is generally vast, in South Africa the law is not codified so a wide range of published sources contain appropriate law. Besides traditional academic sources such as books and journals, primary sources (which are authority) specific to the study of law such as law reports, statutes, government publications as well as other

publications such as law reform commission reports are critical. (International law has its particular sources of law such as treaties)

- because the nature of the law is such that it is constantly changing as it operates within and reflects societal changes, it is impossible to ‘learn’ all the law as a ‘one off’ activity. It is imperative to know where to go to find the law generally, and in particular, changes and the most recent developments, and therefore keep up to date. Several authors maintain that the traditional case study method is being challenged by technological advances and a new range of sources of law are making their presence felt.⁵⁰ The electronic environment has enhanced access to academic legal resources in particular and is changing the process of researching
- legal practitioners are ethically bound to provide the best service for their clients and failure to have the latest information at one’s fingertips could be to the detriment of the client. Time wasted on fruitless searching costs money. Whilst much of the basic practice of law is procedural, the legal practitioner must be able to locate information as is necessary
- given the problem-solving nature of law and the application of precedent in particular, finding the law and referring to it is insufficient. Critically reading, analysing and reasoning about the law in order to apply it to a variety of situations and substantiate argument, is imperative. The basic problem-solving approach adopted in law, that of FIRAC (identifying legal facts, issues, relevant law, applying the law and concluding)⁵¹ is not explored sufficiently or expansively enough in first year law courses.

2. In South Africa in 2001, the national Department of Education decided to convert the LLB degree from a ‘three plus two’ (three years general undergraduate degree and two years post graduate law degree although this route is still an option) to a four year undergraduate degree. The South African Law Deans’ Association (SALDA) and the legal profession have major reservations about this

⁵⁰ P Callister. “Beyond training: law librarianship’s quest for the pedagogy of legal research education.” (2003) 95(1) *Law Library Journal* 21-22; RC Berring. “Legal information and the search for cognitive authority.” (2000) 88(6) *California Law Review* 1675-1708.

⁵¹ See Ch.2: 2.2.4.

conversion and the competency levels of persons wishing to enter the legal profession.⁵² These concerns include:

- the degree is now short by one year which leaves less time to learn legal subjects; poor school leaver matriculation qualifications means bridging courses are necessary and take up time in an already shortened degree; students have less academic and learning experience as a background for a law degree and the workload pressure for them is increased
- the undergraduate nature of the degree has implications for what and how a module like legal research should be administered. Because second year students generally have little experience of independent information researching within complex sources such as the law information sources, a far more scaffolded approach to teaching legal research appears to be necessary
- whilst the existence of the South African Qualifications Authority, SAQA, ensures particular standards in module content and delivery, and there appears to be basic consensus about core module for a law degree, there is no standardisation of modules across all universities. As regards 'lawyering' skills, including legal research, there is no benchmark and the lack of published literature in South Africa on teaching legal research creates a gap as to whether there is consensus concerning the fundamentals of what a legal research module should look like.

3. While the student of law needs to learn the art and skills of legal research, exactly what the content and level of detail of such instruction should be and how best it should be taught and learnt needs to be investigated given the fact that:

- the student population in the Legal Research, Writing and Reasoning module comprises law degree and non law degree students and it is unclear whether a common programme can be developed that caters adequately for all module participants
- the student population in the module reflects a variety of learning styles and characteristics. An active learning and deep learning approach needs to be encouraged

⁵² Anon. "Legal education review should look at complete picture." (2004) Nov. *De Rebus* 2.

- second year undergraduate students have little prior exposure to the legal literature
- the module requires the incorporation of a large practical component which needs to be achieved in a lecture situation
- the class size of over 130 students has implications for teaching and learning
- assessment methods need to be varied and appropriate.

Hence the problem to be tackled in this study is:

- the feasibility of designing and implementing a legal information literacy module that takes cognisance of the diversity of the student body undertaking the module and is designed around active learning principles, and,
- the design of the module in terms of alignment of appropriate and authentic content, process, teaching, learning, goals, objectives, outcomes and assessment.

1.3. THE PURPOSE OF THE STUDY

The purpose of the study is to:

- examine the South African situation with regard to legal method and legal research education in universities in order to situate the University of KwaZulu-Natal Pietermaritzburg campus legal research module
- design, develop and evaluate a legal research module appropriate for the particular situation on the Pietermaritzburg campus reflecting an IL paradigm, an active learning approach which takes cognisance of student characteristics and learning styles, and teaching methods within the constraints facing the module
- attempt to establish core objectives, outcomes and assessment for a legal research module.

1.4. RESEARCH QUESTIONS

The research questions for the current study are as follows:

1. What is the current situation in South African university law schools with respect to the content, delivery and assessment of legal research instruction?
2. What theoretical background is appropriate to the development of the module in terms of learning and teaching in order to develop a theoretical framework for the Legal Research Writing and Reasoning module?
3. What does the design of the Legal Research, Writing and Reasoning module incorporate in terms of an information literacy paradigm?
4. Regarding the types of learning:
 - What is deep learning and what is its relationship to active learning?
 - What is active learning and how feasible is it to use an active learning and teaching approach in the lecture and large class situation and what will an active learning approach look like in a legal research module?
5. What are:
 - some of the characteristics of the student population enrolled in the module and how, if at all, do any characteristics affect the development of the module in terms of teaching, learning and assessment?
 - the learning styles, how should knowledge of them influence teaching and learning activities and approaches and which methods need to be employed to accommodate them?
6. What kinds of assessment are appropriate for a module of this nature and feasible within the large class situation?

1.5. RATIONALE FOR THE STUDY

Various factors provided the rationale for the study.

1.5.1. INVOLVEMENT BY THE AUTHOR

The rationale for the study is based on the author's:

- experience of working as a subject librarian in the UKZN library for many years with responsibility for the Law library on this campus
- experiencing first hand the changing nature of the student population and UKZN's attempts to meet those changing needs
- involvement in initiatives in UKZN to deal with changing teaching and learning and environmental demands over a number of years
- involvement in the Legal Research Writing and Reasoning module and constant experimenting, observing and reflecting on processes and activities for delivery of the module over a period of four years.

The changes at the University of KwaZulu-Natal are similar to other South African higher education institutions.⁵³ The study considers the changing nature of the higher education environment post 1994 in particular and the study and teaching of law at universities in South Africa with particular reference to the University of KwaZulu-Natal, Pietermaritzburg.

1.5.2. HIGHER EDUCATION IN SOUTH AFRICA POST 1994

The deficiencies of school education in South Africa are well known and documented⁵⁴ and the problems for many students who move on into university education as a result of poor schooling are a constant source of concern for universities. The post-1994 period has seen the dismantling of policies that racially segregated universities, and the subsequent influx of students who experienced poor quality schooling has exacerbated the problems for universities of bridging the gap between school and university. Many students find it difficult to break out of the rote-learning mode and cope with the freer style of learning and teaching at university as well as disciplining themselves to cope with study demands. The concept of multiple sources of information, library use and a problem-solving

⁵³ JD Jansen. Changes and continuities in South Africa's higher education system, 1994 to 2004. In: Chisholm, L. ed. *Changing class: education and social change in post-Apartheid South Africa*. (2004) Ch. 11.

⁵⁴ For example SM Naicker. *Curriculum 2005: a space for all: an introduction to inclusive education*. (1999) 21; K Nyamapfene and M Letseka. "Problems of learning among first year students in South African universities." (1995) 9(1) *South African Journal of Higher Education* 163-166; DACT. Draft report of the Inter-ministerial Group on the Library and Information Services (LIS) function, National Level, (1996) sect. 2.4.2.

approach to a discipline and profession like law is often a foreign and complex one for many.

Language is a particular issue in South African universities. In Apartheid times institutions were separated on the basis of race and language. With 11 official languages in the country and most black Africans not using English as their first language, many university classes reflect a diversity of languages. English is the dominant mode of instruction in many of the traditional universities including UKZN. Gravett and Geysers⁵⁵ thus note that language is often an added burden on top of learning the languages of disciplines. The language of learning is often different from that used everyday by learners who need to be able to translate concepts into this language of learning. Added to this, they claim, is the fact that *most* students are under-prepared for university because the discourses used in schools are different from those of university. Like it or not, universities are being expected to address these problems and have been doing so actively for many years via special access programmes and bridging courses. Yet it is at the school level that the critical changes need to occur. However, the demands of the university qualification, the slowness of improvements in the quality of the schooling system and the politics of 'massification'⁵⁶ of higher education have frustrated much of this effort. It is generally accepted that high school matriculation results are not always a reliable guide to student ability either positively or negatively, and recent slight increases in the number of pupils matriculating is no reflection on the quality of teaching or learning.⁵⁷

In a damning and controversial article about the state of universities in South Africa, Jansen points to various causes of their decline.⁵⁸ He refers to the 'dumbing down of the professoriate'⁵⁹ whereby pressures of employment equity and transformation have seen the appointment of a new class of mainly black professors with no track

⁵⁵ S Gravett and H Geysers. *Teaching and learning in higher education..* (2004) 1-3; Ch 5.

⁵⁶ South Africa. National Commission on Higher Education. *A framework for transformation* (2002).

⁵⁷ JD Jansen. "On the state of South African universities." (2003) 17(3) *South African Journal of Higher Education* 9-12.

⁵⁸ JD Jansen. "On the state of South African universities." (2003) 17(3) *South African Journal of Higher Education* 9-12.

⁵⁹ JD Jansen. "On the state of South African universities." (2003) 17(3) *South African Journal of Higher Education* 9-12.

record of research or scholarship and thus no credibility in the competitive world of publishing in research journals. With this status such academics have no motivation to develop scholarly profiles or be productive researchers. Their supervision of post graduates is undertaken without sufficient intellectual and academic depth. Of increasing concern to the country is the fact that the research community is dominated by ageing white researchers, with the pool of black researchers negligible despite huge investments in capacity building. Globalisation and the increasing mobility of academics have resulted in a brain drain. Many new aspirant academics are saddled with huge teaching loads with little or no teaching support and large classes, and are still expected to research and publish – factors that have contributed to their migration to the private sector.

Like others,⁶⁰ Jansen reflects on the declining quality of the student body due to the decreased number of high school graduates, increasing popularity of universities of technology,⁶¹ and increasing number of university entrants who have not met minimum criteria and who are therefore under-prepared. He has denounced the school sector for failing to meet the demands of the nation and the poor quality of teaching and learning at schools. Jansen also maintains that generally there has been a decline in the prominence of university teaching and, coupled with the problems of large classes, weak students, shrinking resources and pressures to push students through the system, higher order intellectual engagement is not happening.⁶² High drop out rates⁶³ as a result of all these factors are a cause for concern and a waste of valuable resources. In the foreseeable future, universities will have to continue to deal with the deficiencies of the school system.

The traditional lecture situation which tends to emphasise the role of the teacher rather than the learner; the relative brevity of the academic semesters into which large amounts of knowledge are imparted in discrete courses; and the large size of

⁶⁰ T Park. "Rethinking and re-imagining higher education: why?" (2003) 17(3) *South African Journal of Higher Education*. 5 -8; K Nyamapfene and M Letseka. "Problems of learning among first year students in South African universities." (1995) 9(1) *South African Journal of Higher Education* 159-167.

⁶¹ New universities of technology where the greater focus is on career related programmes rather than research
⁶² JD Jansen. Changes and continuities in South Africa's higher education system, 1994 to 2004. In: Chisholm, L. ed. *Changing class: education and social change in post-Apartheid South Africa*. (2004) Ch. 11.

⁶³ As high as ½ - 2/3 according to K O'Regan. "Producing competent graduates: the primary social responsibility of law schools." (2002) 119(2) *South African Law Journal* 243.

many classes means that students are expected to undertake a fair amount of extra work outside of lectures. Fourie⁶⁴ has indicated that it is all the more critical for students to be skilled in time management; the under-prepared student needs to cope with huge workloads; there is still excessive focus on content and insufficient time for reflection. Perceptions of assessment and teachers by students affect the potential for deep learning. Bitzer and Mji⁶⁵ pointed out that social factors as well as academic expectations of students are critical determinants of their academic performance, as well as the way in which the institutions organise themselves. Student confidence in their own abilities is not borne out by exam results.

1.5.3. STUDYING LAW AT UNIVERSITY IN SOUTH AFRICA

In addition to the abovementioned problems generally facing university students, the study of law brings with it additional problems. In 2001, as already stated, the LLB qualification was compressed into four years of study at undergraduate level differing from the original three year undergraduate general qualification followed by two years of post graduate legal education. Students are now further disadvantaged by not having the benefit of an undergraduate degree to help inform career choices, nor the benefit of the skills and content afforded by such a degree prior to embarking on a law degree. The four year degree places students under further pressure. These developments have meant added tensions in an already pressured degree to accommodate the lack of basic skills such as numeracy, English language and computer skills into a four-year rather than a five year curriculum. The then Dean of the Law Faculty of UKZN, Professor Michael Cowling,⁶⁶ argued that law has always been seen as a 'deep end profession' where skills such as literature searching and critical analysis amongst others, were self-taught, now these consciously have to be taught. Indications which have started to make themselves felt, are that the degree of difficulty between the different years of study is becoming ever more marked as the first year of study comprises more introductory type

⁶⁴ CM Fourie. "Deep learning? What deep learning?" (2003) 17(1) *South African Journal of Higher Education* 130.

⁶⁵ EM Bitzer "Assessing students' changing perceptions of higher education." (2003) 17(3) *South African Journal of Higher Education* 164; A Mji "What influences students to university education? Insights from the horse's mouth." (2002) 16(2) *South African Journal of Higher Education* 166-167.

⁶⁶ Personal communication 23.2.2005.

courses unlike the second year of study which comprises major substantive law courses.

The South African Law Deans Association (SALDA: which was established in 2001) and other bodies have expressed grave reservations at the competency of new law graduates, products of the new qualification.⁶⁷ A sub committee had been mandated to take these concerns to the Minister of Education. An attendant problem is that if a student drops out of university before the end of the four years they have no qualification, whereas under the 'three plus two year post graduate' system, a student who could not manage the post graduate law degree still had an undergraduate qualification. This Association considers it necessary to evaluate, among other factors, entrance requirements for the study of law.

In 2004, at a summit of a wide range of representatives from the various branches of the legal profession,⁶⁸ alarm was expressed at the fact that many aspirant lawyers lack the basic reading, writing and arithmetic considered by this group to be essential tools for successful practice. Whilst the profession blames the universities for poor quality graduates, the universities, apart from the range of factors mentioned above, blame poor schooling and a lack of government subsidy for remedial programmes. Motala⁶⁹ claimed that 'a major inadequacy in legal education in South Africa is a lack of instruction of the lawyering process. ...legal education in South Africa to a large extent represents a rote-learning experience of laws and legal rules'. He sees law graduates as 'couch potatoes' given the passive nature of legal education. O'Regan⁷⁰ explained that law is primarily a discursive and analytical discipline so language mastery particularly with respect to reading and writing, is critical.

In the opinion of the UKZN Law Faculty, law students are expected to undertake extra work outside of lectures. This includes in particular, the study of case law and

⁶⁷ Anon. "Legal education review should look at complete picture." (2004) 438 Nov *De Rebus* 2.

⁶⁸ Anon. "Legal education review should look at complete picture." (2004) 438 Nov *De Rebus* 2.

⁶⁹ Z Motala. "Legal education in South Africa: moving beyond the couch-potato model towards a lawyering-skills approach: a case for a comprehensive course on legal research, analysis and writing." (1996) 113(4) *South African Law Journal* 69.

⁷⁰ K O'Regan. "Producing competent graduates: the primary social responsibility of law schools." (2002) 119(2) *South African Law Journal* 243.

academic debate and analysis. Whilst some of the substantive content of legal courses is affirmed in its application via lawyering skills such as problem-solving, writing letters of advice, the Moot and so on, there are constant tensions between time being allocated to substantive material, skills training and the practical aspects of being an attorney. Students are expected to read widely, yet instruction in the use of legal materials and the library and other information resources is often overlooked or insufficient. Students are under constant pressure to get to grips with the information they need to know. It is apparent that many students are not aware of how to study law or how and where to find the law when needed. The legacy of a rote learning school experience and the focus on learning to pass examinations, rather than life long learning means that many struggle to 'apply the mind' and think critically, looking for the 'model answer' to problems, failing to understand that problem-solving means just that, solving, not finding a ready made right or wrong answer necessarily. Also, many students will not undertake extra work outside of lectures unless forced to do so.⁷¹

1.5.4. THE STUDY OF LAW AT THE UNIVERSITY OF KWAZULU-NATAL, PIETERMARITZBURG CAMPUS

The law degree at the University of KwaZulu-Natal has been undergoing reform for some while now in an attempt to accommodate the national changes to the law degree as well as, in particular, the skills deficiency and the need to make the students more socially aware via legal aid and community work requirements. Core skills listed in the Law Faculty's vision for the merged faculty include research skills, computer literacy, analytical skills, problem-solving skills, advocacy skills, legal writing and drafting. Concerns of lecturing staff at the UKZN Law Faculty about students' study and research habits have been the focus of discussion between them and a contract academic support coordinator whose task it is to research the problems and suggest interventions in order to help overcome some of the problems. The academic co-ordinator's task is also to examine possible problems with teaching methods and assessment.

⁷¹ Z Motala. "Legal education in South Africa: moving beyond the couch-potato model towards a lawyering-skills approach." (1996) 113(4) *South African Law Journal* 694-701; K O'Regan. "Producing competent graduate: the primary social responsibility of law schools." (2002) 119 (2) *South African Law Journal* 246-249; PD Callister. "Beyond training: law librarianship's quest for the pedagogy of legal research education." (2003) 95(1) *Law Library Journal* 9-11.

Whilst legal problem-solving skills are developed through practical exercises and tutorials in most modules, the Faculty has acknowledged that some skills are best addressed by specialised modules. Legal research skills are one of the latter and the faculty has consciously chosen to keep this as a stand-alone credit-bearing module. The problem for such a module is that it needs to be practical, grounded in an active learning approach, and yet it is set within the confines of a lecture model of teaching which does not lend itself to practical work or small group work. The challenge is to design a module that fits somewhere between the reality of the physical constraints and the ideal of an active and deep learning approach based in authentic problem-solving and practical work.

Thus the rationale for the study is multifold. The changing nature of higher education in South Africa with associated changing demographics and diversity within the classroom as well as the diversity in preparedness of students for the university environment, necessitate new thinking about teaching and learning in order to facilitate core competencies in students. The introduction of a four year undergraduate law degree has created additional challenges in terms of teaching and learning. Coupled with this is the fact that the study of law poses particular difficulties in terms of research knowledge and skills given the vast array of published sources of law and the finding tools and the changing nature of law which necessitates students being able to find law rather than learn the law. Owusu-Ansah⁷² bemoans the fact that librarians lack the will and plan of action or the 'how' of IL teaching. The existence of a compulsory legal research module provides an opportunity to address some of these challenges.

1.6. DELIMITATION OF THE STUDY

The study concerns itself with the Legal Research Writing and Reasoning module on the Pietermaritzburg campus which is a compulsory module for all second year undergraduate students who are registered for the LLB degree or majoring in Legal Studies. Legal research modules in the 17 South African law faculties were

⁷² EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220.

surveyed in order to have a sense of commonalities and differences in terms of teaching legal research to inform the future development of the module.

1.7. DEFINITIONS AND TERMINOLOGY

Some core definitions are required for the purpose of this study as there is no single, clear cut definition in each case. These will be examined in depth in chapter two:

Active learning

There appears to be no precise, concise definition but the following is being used in this study:

Active or participatory learning connotes a process in which the student utilises an activity or role as an opportunity for discovery and reflection. It is a term of imprecise definition that is often employed to contrast the passivity of inactive learning... It incorporates all situations where...students debate, discuss, argue, act, play games, role play, observe or work as part of a programme of learning.⁷³

Silberman⁷⁴ elaborates further by referring to active learning as:

a multi-directional experience in which learning occurs teacher-to-student, student-to-teacher and student-to-student.

Royse⁷⁵ indicates that the following principles underlie active learning:

- 'Students learn more when they are challenged to discuss, reflect and problem solve'
- students need to be provided with opportunities to 'try out' ideas or understanding of material and need immediate feedback
- students learn new knowledge more easily if they can relate it to personal examples and knowledge they have already acquired
- the lecture situation does not serve all learning styles
- students need authentic tasks in order to build on what they already know
students learn more when they have some control over what and how they learn

⁷³ R Burridge. *Effective learning and teaching in law*. (2002) 28.

⁷⁴ M Silberman. *Active learning online*. <http://www.acu.edu/cte/activelearning/>. Accessed: 8.12.2004.

⁷⁵ D Royse. *Teaching tips for college and university instructors*. (2001) 64.

- prompt feedback is central to effective learning.’

Deep learning and surface learning:

Deep learning involves the critical analysis of new ideas, linking them to already known concepts and principles, and leads to understanding and long-term retention of concepts so that they can be used for problem solving in unfamiliar contexts. Deep learning promotes understanding and application for life. In contrast, surface learning is the tacit acceptance of information and memorization as isolated and unlinked facts. It leads to superficial retention of material for examinations and does not promote understanding or long-term retention of knowledge and information.⁷⁶

Information literacy

The American Library Association definition has been applied in the proposed research:

To be information literate, a person must be able to recognise when information is needed and have the ability to locate, evaluate, and use effectively the needed information.⁷⁷

Knowledge

Alexander, Schallert and Hare⁷⁸ define knowledge as:

An individual’s personal stock of information, skills, experiences, ...all that a person knows or believes to be true .. and memories. This knowledge is always idiosyncratic, reflecting the vagaries of a person’s own history.

Information becomes knowledge when it is internalised and contextualised by an individual. These kinds of knowledge will be explored more fully in chapter two. Although the above definition of knowledge includes skills, for the purposes of the current study both terms, knowledge and skills will be used. Widespread use of the concept ‘skills’ is made in the academic information literacy/library instruction literature which is perhaps unfortunate as it implies more practical rather than academic or intellectual competencies. The definition of ‘skills’ (see below) however

⁷⁶ Higher Education Academy. Engineering Subject Centre. (2004).

<http://www.engsc.ac.uk/er/theory/learning.asp>. Accessed: 10.09.2004.

⁷⁷ American Library Association. *ALA definition of information literacy*. (1989).

<http://www.ala.org/acrl/nili/ilit1st.html>. Accessed: 13.07.2004.

⁷⁸ PA Alexander, DL Schallert and VC Hare. “Coming to terms: how researchers in learning and literacy talk about knowledge.” (1991) 61(3) *Review of Educational Research* 317.

presumes, in the information literacy context, to include practical and higher order cognitive processes.

Legal research⁷⁹

The essential elements of legal research are:

- identifying and analysing the problem
- finding appropriate information to solve the problem
- presenting results of the analysis and research in an appropriate and effective manner.

The criteria for legal research at the academic stage are:

- applying the law to the facts of the problem so as to produce satisfactory answers to the questions posed
- communicating the reasons for those answers, making use of the legal resources and materials
- extracting the essential points from those legal sources and materials
- identifying and finding relevant legal sources and materials.

The criteria for a more complete picture of legal research that accommodates the practitioner is as follows (direct quote):

The student should be able to:

- determine the objectives of the employer or client
- identify and analyse factual material
- identify the legal context in which the factual issues arise
- identify sources for investigating relevant facts
- analyse a client's instructions and be able to identify the legal, factual and other issues presented by them
- apply relevant legal provisions to the facts
- determine when further facts are required
- identify and analyse legal issues
- identify the legal, factual and other issues presented by documents
- present the results of research in a clear, useful and reliable form
- relate the central legal and factual issues to each other.

⁷⁹ P Clinch. *Teaching legal research*. (1999). www.ukcle.ac.uk. Accessed: 8.05.2004.

The student should be able to demonstrate an understanding of:

- the methods of locating cases and statutes
- the use of computerised research tools.
- the use of indexes and abstracts
- the use of primary and secondary texts
- the use of treatises, periodicals, digests and standard practitioner texts.⁸⁰

Practicals

Designated times, usually a lecture period, for hands-on training in the finding, accessing and use of information sources and information.

Second level module

This refers to the second year of study at undergraduate level.

Skills

Hawes⁸¹ defines a skill as:

A well developed capability of any kind, including intellectual, physical or artistic capabilities

1.8. NATURE OF THE RESEARCH

This thesis has been researched as a case study. The case study in research has been broadly described as an intensive or thorough study of a case, be that case a person, group or place, with the intent to study the case because of the inherent features presented by that case; illustrate a broader principle; develop and /or test hypotheses; methodological refinement and provide insight into an issue or develop some explanation of some more general phenomenon.⁸² The case study approach was chosen for a number of reasons:

- the Legal Research Writing and Reasoning module was the focus of the author's attention due to her involvement in the teaching of this module and the author is an integral part of the implementation process

⁸⁰ P Clinch. *Teaching legal research* (1999) 4 www.ukcle.ac.uk. Accessed: 8.05.2004.

⁸¹ GR Hawes and LS Hawes. *The concise dictionary of education*. (1983) 207.

⁸² L Cohen, L Manion, and K Morrison. *Research methods in education*. 5th ed (2000) 181; D Silverman. *Doing qualitative research*. (2005) 126-127; PB Foreman. "The theory of case studies." (1948) 26(4) *Social Forces* 408-419. Online. JSTOR. Accessed: 2.11.2004.

- this module is a bounded system in terms of student registration, module size, with respect to credits and hence notional study hours and time frame and subject matter
- the research problem of establishing the feasibility of designing and implementing a legal information literacy module from an active learning perspective required the process of implementation to be studied in depth and as a process as well as content which was facilitated by the case study approach
- Silverman⁸³ refers to the instrumental case study in which ‘a case is examined mainly to provide insight into an issue or revise a generalization’ which best suits the current study of the Legal Research Writing and Reasoning module
- a range of methods was required to gather relevant quantitative and qualitative data.

A case study allows for a thick description of the phenomena under study and collection of a range of data via different methods in order to present different facets of the phenomena. This also lends itself to triangulation. Validity and reliability are thus supported.⁸⁴

The theoretical approach is largely qualitative and reflects constructivist underpinnings. Within this paradigm, the researcher is an integral part of the research, assuming roles of coach, participant and observer. The immersion in the research by researcher is necessary to make sense of the range of dynamics that will be apparent in the roll out of the module. The research is thus not value-free and operates within a multiplicity of realities that cannot be objectively measured. Researcher and participants bring particular behaviours, perspectives and ideologies to the research situation. Participants and researcher construct and co-construct understandings of the environment.⁸⁵ Objectivity is however achieved in

⁸³ D Silverman. *Doing qualitative research*. 2nd ed. (2005) 127.

⁸⁴ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *Sage handbook of qualitative research*. 3rd ed. (2005) 18-23.

⁸⁵ EG Guba and YS Lincoln. *Fourth generation evaluation*. (1989) Ch 3.

some measure through the thick description of the case and different methods of data collection.

This thesis proposed an hypothesis that the Legal Research Writing and Reasoning module, taught and learned from within an information literacy paradigm, in terms of an active learning approach, will improve the legal research skills of second year undergraduate students.

1.9. ETHICAL ASPECTS

In keeping with the University of KwaZulu-Natal's research ethics guidelines:⁸⁶

- the participants in the research were fully apprised of the nature of the research, the researcher's role in the research and the purpose of the research
- participants were provided with details of the author's supervisor and the fact that the research had been approved by the University
- participants were informed that their participation was voluntary, anonymous and information provided by themselves would be treated in the strictest confidence. In terms of the final product, the thesis, the participants were assured that no names would be mentioned as names were not relevant to the study
- participants were informed that as their participation was voluntary, they could withdraw at any time without any negative consequences
- participants were informed of the different instruments that would be used for data collection
- data collected was stored on a private computer in a locked office with password access only in terms of electronic data. Instruments filled in by participants were kept in a locked cupboard in a locked office
- no confidential information about the participants was accessed outside of the data collection instruments

⁸⁶ UKZN. Research Office. *Ethics in research*. (2006). <http://research.ukzn.ac.za/EthicsinResearch11442.aspx>. Accessed: 3.1.2007.

- each time an instrument was administered, the author reiterated the above conditions and participants were not subject to any deceit in terms of data collection methods.

1.10. STRUCTURE OF THE THESIS

The following chapter, Chapter two will provide the review of the literature. As the study crosses several disciplines, a vast literature exists to be consulted. The literature review will thus reflect a cross section of the prominent research. Chapter three will cover the research methods and methodology and research design. Chapters four through six will deal with the presentation and analysis of data collected via the various instruments employed. Chapter four will provide the theoretical framework for the module, learning objectives and outcomes and content for the module. Chapter five will provide a chronological overview of the roll out of the module itself. Chapter six will present the data in collated form and its analysis. Chapter seven will provide an interpretation of the findings with respect to the research questions and the research to date. Chapter eight will overview the current study, conclusion and recommendations.

1.11. SUMMARY

This first chapter has set the scene for the current research by providing the background to the study with respect to information literacy, aspects of teaching and learning and legal research. The statement of the problem which focuses on the problems associated with the study of law and South African higher education difficulties post 1994 in particular, is followed by the purpose of the study, research questions and rationale for the study. The delimitations of the study, definitions of terminology used in the study and the nature of the research are provided. Ethical considerations required by the University of KwaZulu-Natal are presented as well as an overview of the structure of the study in terms of the content of the chapters.

The next chapter, Chapter two, presents the literature review which underpinned the current research. This literature review covers the topics of information literacy, legal research and the study of law, learning, teaching and assessment.

CHAPTER 2

LITERATURE REVIEW

This chapter provides a synopsis of part of a vast body of literature and research that exist about the topics of information literacy, legal research, learning and teaching and assessment. As this current research covers various discipline areas it is beyond the scope of this thesis to cover all the subject matter in great detail. This review reflects the writings of researchers chosen largely for their prominence in their respective fields or their particular approach to their subject matter. The literature reviewed is that published in the English language and up to 2006. A few relevant 2006 publications have been referred to because of their importance to the local body of research.

With respect to each of the five topics referred to above, this author has presented a brief historical overview or general overview where appropriate; definitions of concepts; scope of research to date; problems, and key issues associated with research in these topic areas.

As regards information literacy, this author briefly traces the history of the evolution of information literacy as a concern of librarians both in terms of teaching and learning. The debates around defining the concept of information literacy are important as it is necessary to understand what it is and how it has been conceptualised in order to be able to plan content and approaches for the teaching of information literacy. The South African writing and research about information literacy is briefly described in order to set the broader scene within which the current study is situated. The evolution of standards and objectives in various parts of the world promote a sound pedagogical base for the development of information literacy programmes.

Legal research as a strategy fits usefully within an information literacy paradigm because of the problem-solving nature of the study of law and the particular nature and use of published sources of legal information. In South Africa major changes

have taken place since 1994 as regards the formal study of law and the higher education landscape which have impacted on elements of the curriculum such as legal research. Legal research, as one particular situation of information literacy, has been taught in different ways and the dearth of competence in legal research skills and knowledge of law students is well documented.

Despite the fact that learning appears to be a difficult concept to define or make happen with any certainty, the goal of teaching is enabling learning to happen. The formal higher education environment has struggled with and continues to struggle to find the right approaches and methods of teaching and learning in order for authentic and appropriate learning to take place. Much has been written about the formal learning / teaching environment needing to take cognisance of a myriad of individual and group characteristics of learners that affect the nature of the learning that takes place in the classroom, as well as obstacles to learning. Particular attention has been paid to deep and surface learning and learning styles.

The development of any curriculum requires an alignment between teaching and learning and assessment activities and it has been suggested that multiple strategies and methods are needed to cater for all learners. This alignment has been fleshed out with respect to various factors. Instructional design has been viewed as necessary to providing a way to develop and attain goals for teaching and learning. Librarians are increasingly taking cognisance of teaching and learning theory to inform their information literacy programmes.

Assessment in the formal education environment has been well researched in terms of the kinds of assessment available to be used, when different methods are appropriate and how assessment should be aligned with teaching and learning. Opportunities for and how to assess information literacy programmes continue to provide a challenge for librarians.

2.1. INFORMATION LITERACY

This section reviews the development of and debates around the concept and practice of IL within academic libraries generally and within the South African context specifically. Discussion of definitions and characteristics of IL are provided along with a brief overview of its historical development and nature of research into IL, the development of standards, objectives and guidelines for programme design and the varied approaches undertaken for implementation of programmes of IL. Within the higher education library environment teaching of IL has largely been characterised by the imparting of generic skills and within the gambit of those print and electronic text resources accessible to libraries. The broader consideration of information such as that which might be created during the process of information seeking and discovery and the larger multimedia environment is only recently started to be explored more fully.¹ It is contended that these characteristics, alongside the time constraints for delivery of formal IL programmes, have influenced the focus on IL in terms of defining IL and pedagogy by academic librarians.

A universally acceptable definition of IL has not been settled although the ALA definition (see below) is broadly accepted as reflecting the basic attributes of the information literate person. Recent research suggests that process, the nature and context of the learner as an information seeker needs greater attention. The relationship between the individual and the information environment, the nature of that environment, the context of the individual, the process needed to become information literate and the information seeking behaviour of individuals should be considered. In terms of the practice of IL, this is increasingly being investigated beyond the educational setting in such environments as the workplace and the community.²

¹ M Lupton. *Information literacy and learning*. (2008) 4, 85-88, 107.

² A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 570-583.

2.1.1. INTRODUCTION

In a review of the last three decades, Rader³ indicated that the literature on IL has grown phenomenally from some 28 reviewed articles in 1973 to more than 300 issued in 2002 with over 5000 being published in total for the period under review. A wealth of electronic information is steadily growing. On average 60% of articles published had dealt with library instruction or IL in academic libraries in particular. The literature also reflects the progress of library instruction along a continuum from the bibliographic method / approach or source identification method, to the pathfinder approach; the critical thinking and problem-solving approach and finally to IL.⁴ Much of the current literature concerning IL emanates from school library studies. Many library websites contain details of IL programmes.

Much debate has ensued about terminology, with library instruction also being referred to as bibliographic instruction, library literacy; library skills, research skills, user education and information literacy. This author prefers to think of user education as the umbrella term for a whole programme of activities undertaken by a library to educate its users. This would include library tours, formalised instruction, displays and the like. Library instruction in the academic library denotes the more formalised instruction in the 'what', 'where', 'how' and 'why' of information resources. 'Information resources' refers to all sources of information in any medium but particularly academic resources. IL is a much broader concept than those referred to above and reflects a way of learning, within the information environment.⁵ IL has and is promoting new ways of teaching content and process, visualising the nature of formalised IL programmes as well as cognisance of learner characteristics from the librarian's point of view in particular.

³ HB Rader. "Information literacy 1973 – 2002: a selected literature review." (2002) 51(2) *Library Trends* 242; HB Rader. "A silver anniversary: 25 years of reviewing the literature related to user education." (2000) 28(3) *Reference Services Review* 290–296. This second article lists what the author considers to be the 32 most influential writings on user education and information literacy.

⁴ C Kuhlthau. "An emerging theory of library instruction." (1987) 16(1) *School Library Media Quarterly* 5-31; P Callister. "Beyond training: law librarianship's quest for the pedagogy of legal research education." (2003) 95(1) *Law Library Journal* 21-22; C Oberman and K Strauch. *Theories of bibliographic education: designs for teaching*. (1982) vii; S Andretta. *Information literacy: a practitioner's guide*. (2005) 5-8.

⁵ C Bruce. "The relational approach: a new model for information literacy." (1997) 3 *NewReview of Information and Library Research* 2. Behrens provides an interpretation of user education and describes how information literacy extends beyond user education: S Behrens. "Librarians and information literacy." (1992) 10(1) *Mousaion* 81-88.

The bibliographic method tends to refer to a more descriptive and situation specific approach with the emphasis on description of sources and how to use them (a more behavioural approach). Instruction is organised according to type of resource rather than the steps in the research process although this has been disputed.⁶ The pathfinder method Kuhlthau⁷ described as taking the bibliographic method one step further where the instruction involves undertaking a search on a particular topic using a variety of information sources according to types of sources.

The process oriented, critical thinking approach reflected a quite radical departure from the earlier focus on sources to one where the focus is the user with a problem to be solved and the process of reaching a solution by identifying needed information; the sources in which such information appears and deciding when and how to use them. This approach moves beyond mastery of techniques to a conceptual approach. This was the start of a focus on learning information skills that were not context specific but could be applied to any situation. Process is emphasised and there is recognition of the need to move from “tool-based learning to conceptual-based learning”.⁸ IL reflects a pedagogical shift to learner-centredness and life-long learning away from the instructor.⁹ Webber and Johnston¹⁰ referred to the inclusion of information management within the concept of IL.

2.1.2. DEFINITION AND CHARACTER OF INFORMATION LITERACY

This section considers the problematic nature of defining IL and difficulties around characterising the information literate person. It is increasingly accepted that amongst librarians there is more consensus than disagreement about what is meant by IL and the problem rather lies with the implementation and assessment of IL programmes in academic libraries. The ALA definition of IL, which is widely accepted and used, is not without its critics. The use of the word ‘skills’ as well as critical

⁶ CG Wren and JR Wren. “The teaching of legal research.” (1988) 80 *Law library Journal* 8; R Berring and K Vanden Heuvel. “Legal research: should students learn it or wing it?” (1989) 81 *Law library Journal* 431-449.

⁷ C Kuhlthau. “An emerging theory of library instruction.” (1987) 16(1) *School Library Media Quarterly* 5-31.

⁸ C Oberman and K Strauch. *Theories of bibliographic education: designs for teaching*. (1982) vii.

⁹ S Andretta. *Information literacy: a practitioner’s guide*. (2005) 6.

¹⁰ S Webber and B Johnston. “Conceptions of information literacy: new perspectives and implications.” (2000) 26(6) *Journal of Information Science* 395.

thinking' are problematic as they do not appear to have been satisfactorily defined within the IL context.

2.1.2.1. Defining IL and the information literate person

According to Eisenberg, Lowe and Spitzer¹¹ and Behrens¹² amongst others, Zukowski is purported to have first introduced the concept of IL in a proposal to the American National Committee on Libraries and Information in 1974. By the 1990s the concept of 'information literacy' was firmly entrenched in the literature despite the fact that its precise definition was and is still the subject of much debate and it seems easier to describe than define. At the current time Owusu-Ansah¹³ has contended that there is more agreement rather than disagreement about what is meant by IL: there exists a 'consensual core that has developed as a result of a multitude of contributions towards the delineation of the concept' and it is time for librarians to focus on the how of implementation. The problem is the 'absence of a clear line of action and the will and practical chance to implement it'¹⁴ which is partly the justification for the current study. The needed result is competency and sustainability in the 'why', 'what', 'where', 'when' and 'how' of information identification, retrieval and usage. The 'baseline of information literacy skills may be common'.¹⁵ Whilst the IL concept may contain terminology borrowed from other disciplines it is at least recognisable to librarians.

In terms of a definition, that provided by the American Library Association, formulated in 1989 is accepted as a base (for the higher education environment) given the absence of a definition that holistically includes and reflects the

¹¹ MB Eisenberg, CA Lowe and KL Spitzer. *Information literacy: essential skills for the information age.* (2004) 187.

¹² S Behrens. "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 309-322.

¹³ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220.

¹⁴ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220.

¹⁵ L Arp and BS Woodard. "Examining the context: new voices reflect on information literacy." (2003) 42(4) *Reference & User Services Quarterly* 311.

interrelationship between the information environment and the user.¹⁶ It provides an intellectual framework rather than a definition.¹⁷ The definition is as follows:

To be information literate a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information.

This definition reflects IL as incorporating skills and knowledge, a process, an active process that engages the individual, which often takes place within a specific context but can be applied to a range of situations, is unique to an individual at a point in time, encompassing the potential spectrum of information resources, tools and technologies within and beyond the library, and within a problem-solving context. This definition, like others, has been criticised on a number of grounds¹⁸:

- it focuses on the individual and does not take cognisance of group learning and knowledge construction¹⁹
- it does not reflect the fact that information may be desired for reasons outside of solving a problem (the word need rather than want is used)²⁰
- it suggests the ready and equitable availability and accessibility of information sources and tools²¹
- it does not take cognisance of prior learning²²
- it does not take cognisance of the environment and contexts in which information may be sought; it is not a stand-alone activity²³
- it does not take cognisance of the different cultural values over time and place²⁴

¹⁶ American Library Association. *ALA Definition of information literacy*. www.ala.org. Accessed: 13.7.2004. Bruce's model describes rather than defines this relationship: "The relational approach: a new model for information literacy." (1997) 3 *New Review of Information and Library Research* 1-22.

¹⁷ ACRL. *Information literacy competency standards for higher education*. (2000). <http://www.ala.org/ACRLPrinter.cfm?Section=acrilstandards&Template=/C>. Accessed: 14.12.2004.

¹⁸ A useful review is provided by K Tuominen, R Savolainen and S Talja. "Information literacy as a sociotechnical practice." (2005) 75(3) *Library Quarterly* 329-345; BR Harris and MS Millet. "Nothing to lose: 'fluency' in information literacy theory and practice." (2006) 34(4) *Reference Services Review* 524-525.

¹⁹ K Tuominen, R Savolainen and S Talja. "Information literacy as a sociotechnical practice." (2005) 75(3) *Library Quarterly* 336.

²⁰ Y Sayed. *The segregated information highway: information literacy in higher education*. (1998) 3.

²¹ Y Sayed. *The segregated information highway: information literacy in higher education*. (1998) 6-7.

²² Y Sayed *The segregated information highway: information literacy in higher education*. (1998) 7.

²³ K Tuominen, R Savolainen and S Talja. "Information literacy as a sociotechnical practice." (2005) 75(3) *Library Quarterly* 330; 338-341.

²⁴ K Tuominen, R Savolainen and S Talja. "Information literacy as a sociotechnical practice." (2005) 75(3) *Library Quarterly* 336.

- it suggests a rather formulaic and linear approach to the information seeking process without accommodating serendipitous searching²⁵
- it ignores the complexity of information searchers' backgrounds
- it ignores the social, economic, legal and political contexts within which information is made available and searched for²⁶
- it does not indicate that information and knowledge are not the same thing²⁷
- it does not explicitly include reference to understanding or creation of a knowledge base
- it does not accommodate the reflexive and non-linear nature of much information searching
- it implies that interacting with the information environment is merely a process and not an experience
- it does not indicate a need to understand the nature of information itself.²⁸

Johnson and Webber²⁹ and others³⁰ are critical of the definition and the fact that IL is largely perceived in terms of a set of skills or attributes that a person must acquire/have in order to be information literate. The ACRL standards imply a list of skills to be learned and tested, which in turn affects the way in which IL is taught and assessed. They also remarked that a characteristic of IL definitions is the focus on personal attributes and skills rather than the processes and engagement with the information environment.³¹

However, it needs to be acknowledged that an all encompassing definition of such a complex concept may not be possible and the above definition represents the kernel

²⁵ B Johnston and S Webber. "Information literacy in higher education: a review and case study." (2003) 28(3) *Studies in Higher Education* 343.

²⁶ Y Sayed. *The segregated information highway: information literacy in higher education*. (1998) 3; A Lloyd and K Williamson. "Towards and understanding of information literacy in context: implications for research." (2008) 40(3) *Journal of Librarianship and Information Science* 3-12.

²⁷ Y Sayed. *The segregated information highway: information literacy in higher education*. (1998) 5; MJ Bates. "Information and knowledge: an evolutionary framework for information science." (2005) 10(4) *Information research* 23p. <http://informationr.net/ir/10-4/paper239.html>. Accessed: 16.10.2005..

²⁸ J Shapiro and S Hughes. "Information literacy as a liberal art." (1996) 31(2) *Sequence* 3. <http://net.educause.edu/apps/er/review/reviewarticles/31231.html>. Accessed: 12.3.2005.

²⁹ B Johnston and S Webber. "Information literacy in higher education: a review and case study." (2003) 28(3) *Studies in Higher Education* 346;

³⁰ A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 572-574.

³¹ S Webber and B Johnston. "Conceptions of information literacy: new perspectives and implications." (2000) 26(6) *Journal of Information Science* 382.

of the skills, attributes, knowledge and experience of being information literate. The ALA definition does however begin with the person rather than the set of skills albeit that it does not expound on the relationship between person and information that potentially affects the manner in which a person develops information literacy. The core features of the ALA definition play out in different ways depending on context and circumstances, characteristics and experiences of those searching for information. This author agrees that practical skills and associated knowledge suggested by the ALA definition must form part of the condition of being information literate to interact effectively with the information environment. It is the higher order and critical thinking activities, that often cannot be succinctly quantified or clarified as objectives or outcomes, that link and surround this knowledge and skills thus making IL more than just a series of steps or skills. Information seekers and users themselves approach the information environment situated within particular backgrounds, cultures, socio-economic conditions and conceptions about their abilities and the information environment. Finding ways of teaching these higher order activities is a challenge for formal IL programmes.

The engagement with a search for information is not always linear, but often circular and recursive. The ALA definition above appears to have evolved in the way it has as an attempt to suggest the basic paths to be taken to help individuals *enter* the experience of the information environment. It is ongoing experience with and application of the activities associated with IL that enables individuals or groups to master the skills and information and make the process something other a formulaic linear one.

IL is considered to be an active *process* involving not just mechanical skills but taking cognisance of the problem-solving, critical thinking and reflective activities involved in the process of formalising and satisfying an information need. These skills also indicate the interrelationship between knowledge of sources, the traditional facets of library instruction – where, how and use of sources – and other fundamental academic skills such as reading – critically – to synthesise and understand; and repackaging of information for a given situation. IL implies an integrated set of skills and knowledge which include research strategy and evaluation as well as the development of particular attitudes towards information

such as the need for information, accurate application of, attention to detail and appreciation of the need to use more than one source of information.³² The definition is sufficiently broad to accommodate information activities of any type of library user or information seeker and in any context. The definition also indicates 'that the process of information literacy requires A new way of thinking in order to derive meaning from learning.'³³

Reference here to the *library* user is made because it is usually library patrons who are the recipients of instructional programmes. IL is not equated with library literacy as per resources only found within a physical library building, but encompasses any form of and access to any information source. In the academic library, to 'use information effectively' implies a link to the academic skills of writing and reading as well. The definition promotes the learner as taking responsibility for the process. As Owusu-Ansah³⁴ has indicated, this is the departure point for librarians in that librarians need to be able to make this type of approach actually happen. Dewing³⁵ has viewed IL as including attributes of information such as timeliness, relevance and consistency, ability to define information requirements effectively and information filtering and overload.

McCrank³⁶ argued that information literacy is easier to describe than define:

because it is an abstraction, an ideal, and an interlocking set of skills and knowledge that is characterized by an ability or behaviour rather than a specific subject domain.

Breivik and Gee³⁷ quoted President R Van Horn of the University of Houston in 1986 as saying:

One of the valuable aspects of a library is that libraries are not organized along course lines. Universities should give students at least some exposure to problem-solving that is not course oriented. Business leaders who hire our students

³² S Behrens quoting a definition by Martin Tessmer in: "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 312.

³³ C Doyle. *Information Literacy in an Information Society: A Concept for the Information Age*. (1994) 33.

³⁴ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220.

³⁵ S Dewing. *The case for information literacy*. (1996) www.tuanz.gen.nz/on-line/topics/ 1. Accessed: 21.10.2004.

³⁶ L McCrank. "Academic programs for information literacy: theory and structure." (1991) 116(8) *Library Journal* 485-6.

³⁷ PS Breivik and EG Gee. *Information literacy: revolution in the library*. (1989) 7.

say that when those students get out on the job, they often do not know how to address complex problems. In the university, they are in a physics or an English course. So, if they see a problem, it is a physics problem or an English problem. Out on the job, a problem is just a problem. It does not fit anywhere, and students find that difficult. We should reinforce in students the notion that learning is not really related to courses. Courses are an administrative convenience that help use faculty and student time effectively, but they have little to do with the way the world is structured.

This was indeed the point of the problem-solving approach and even more so today of the IL approach although it is acknowledged that most problem-solving is and should be context specific and requires more than generic skills. (see below).

Bruce³⁸ has explored more explicitly the fact that an information literate person 'experiences' or relates to information in a variety of ways, implying recognition of information seeking behaviour which reaches beyond acquisition of skills. Learning happens as conceptions of information seeking and use change. She provided a useful nutshell description which reflects the behavioural, cognitive and experiential nature of becoming and being information literate. Thus:

The ability to access, evaluate and use information...this description is based on the view that information literacy is an amalgam of skills, attitudes and knowledge...it is a way of learning, or a conglomerate of ways of experiencing information. It is generally seen as pivotal to the pursuit of lifelong learning, and central to achieving both personal empowerment and economic development.

More recently, Lloyd³⁹ has penned a more expansive view of IL from a constructivist perspective, based on research with the IL skills of firefighters. Her brief definition of IL is: 'the ability to know what there is in a landscape and to draw meaning from this through engagement and experience with information.'⁴⁰ She supports argument that IL is an holistic process, is context specific, is influenced by the different landscapes in which an individual operates and the relationship between individual and information develops as a conceptual understanding of practice, and

³⁸ C Bruce. Information literacy. In: Feather, J and Sturges, P. *International encyclopedia of information and library science*. 2nd ed. (2003) 261-263; Bruce, C. *Seven faces of information literacy in higher education*. (1997). <http://sky.fit.qut.edu.au/InfoSys/bruce/inflit/faces/faces1.htm>. Accessed: 12.04.2000

³⁹ A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 570-583.

⁴⁰ A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 570.

involves reflective practice and immersion by the individual within the learning environment.

'Know how'⁴¹ is what Lloyd describes the information literate person as gaining, which, whilst a nebulous term, encompasses that which is tangible such as skills and knowledge but also the intangible, the experience of and with information for the individual which is affected by a variety of external and internal factors. The relationship with the information environment is physical, cultural, social and textual and different landscapes require different skills, knowledge, approaches and practices. For Lloyd, the 'how' of the location of information within a landscape is important given the differences in landscapes. This is influenced by the discursive practices of particular landscape discourses. Lloyd argues that the novice learns the institutionalised practice of IL skills and knowledge which is often artificial, whilst the expert comes to an 'embodied understanding of practice'⁴² Here the individual comes to appreciate and embrace the nature of practices within a landscape, being able to make judgments about the selection and use of information, and assimilate information into a knowledge base.

Lloyd differentiates between being information literate and the practices of information literacy.⁴³ Being information literate is a transformative, internalised and concrete process. Practices of information literacy involve manifest activities, skills and knowledge required by and influenced by a particular landscape. Her argument is thus that in the education landscape in which libraries operate, a rather artificial IL approach is undertaken where generic skills and knowledge are emphasised and without a real world context. She also argues that in any particular work environment, IL is acquired not only through learning the skills, knowledge and practices basic to a profession but internalising and becoming part of the collective or community of practice inherent to that environment. In research with music students, Lupton noted that becoming information literate included creating

⁴¹ A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 571.

⁴² A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 576.

⁴³ A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 579-580.

information (such as music composition) through the process of discovery within the information environment.⁴⁴

Some authors⁴⁵ have indicated that learners need to understand and experience the variation of ways in which the information environment can be approached and make meaning from it. In practice, this can be implemented in learning activities and assessment activities that require users to present different viewpoints including their own, develop argument for these, use and evaluate a variety of resources and reflect on the processes. This is what is required in the study of law. Learning situations need to be authentic. Lupton's research⁴⁶ indicated that there is variation in the ways students experience IL when undertaking an assignment task such as an essay. Teachers need to be aware of this varied learning in order to create learning and teaching activities that

For librarians then, this raises the challenge of how to create IL programmes that are embodied, reflect real life situations, whether context-specific IL programmes are realisable and what the aim of IL programmes should be. The reality is that the teaching of much of higher education and the manner in which it is assessed is artificial. As indicated later, research is still divided as to the how and extent of transferability of skills and knowledge, and indeed the extent to which the librarian acts as an effective catalyst in the process of becoming and being information literate. In a review of research concerning workplace information literacy, Lloyd and Williamson⁴⁷ suggest that 'the current educationally-driven conceptions of IL and IL practices may not reflect the nature or manifestation of IL in other contexts.'

⁴⁴ M Lupton. *Information literacy and learning*. (2008) 107. <http://en.scientificcommons.org/41591984>. Accessed: 2.3.2009. 107.

⁴⁵ C Bruce, S Edwards and M Lupton. "Six frames for information literacy education: a conceptual framework for interpreting the relationships between theory and practice." (2006) 591 *ITALICS: Innovation in Teaching and Learning in Information and Computer Sciences* 11-14; C Kuhlthau. "Inside the search process: Information seeking from the user's perspective." (1991) 42(5) *Journal of the American Society for Information Science* 361-371. <http://www.ics.heacademy.ac.uk/italics/>. Accessed: 20.2.2006; C Maybee. "Undergraduate perceptions of information use: the basis for creating user-centred student information literacy instruction." (2006) 3291 *Journal of Academic Librarianship* 79-85; A Lantz and C Brage. "Towards a learning society- exploring the challenge of applied information literacy through reality-based scenarios." (2006) 5(1) *ITALICS: Innovation in Teaching and Learning in Information and Computer Sciences* 15p. <http://www.ics.heacademy.ac.uk/italics/>. Accessed: 20.2.2006.

⁴⁶ M Lupton. *Researching an essay: undergraduates' ways of experiencing information literacy*. (2003).

⁴⁷ A Lloyd and K Williamson. "Towards and understanding of information literacy in context: implications for research." (2008) 40(3) *Journal of Librarianship and Information Science* 6.

Whilst Cain⁴⁸ argued that the problem with the concept of IL is that 'information' has not been defined, better inroads have been made into the definition of literacy. The debate over what is meant by 'information' and 'knowledge' has not been a focus of the current research. Owusu-Ansah and Dick⁴⁹ amongst others have usefully overviewed this debate. This author agrees with Owusu-Ansah that: 'the significance of information is of little import if information were totally divorced from its anticipated contribution to the desired result that is knowledge.' Said Bruner:⁵⁰ 'if information is to be used effectively, it must be translated into the learners' way of attempting to solve a problem. If such translatability is not present, then the information is simply useless.' In a discussion of the definitions and contexts of knowledge, Alexander, Schallert and Hare concurred.⁵¹

Breivik and Gee⁵² have debated the new concept of literacy that underpins the IL concept. Given societal, political and economic changes and developments in technology, they concluded, like many scholars, that literacy had evolved from a simple ability to read and write and functional literacy, to a continuum which reflects at one end, the very basics of communication, to the other end where 'lies language using behaviours such as logical thinking, higher order cognitive skills, and reasoning': multiple literacies. Literacy is about 'access to ideas that challenge our thinking and promote new ways of looking at our world.'⁵³ In addition, there now seems to be consensus that literacy is 'highly context specific and context dependent'.⁵⁴

⁴⁸ A Cain. "Archimedes, reading, and the sustenance of academic research culture in library instruction." (2002) 28(3) *Journal of Academic Librarianship* 119. Bates considered the difference between 'information' and 'knowledge': MJ Bates. "Information and knowledge: an evolutionary framework for information science." (2005) 10(4) *IR Information Research* 23p. <http://informationr.net/ir/10-4/paper239.html>. Accessed: 15.11.2004.

⁴⁹ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 222-224; AL Dick. *The philosophy, politics and economics of information*. (2002) Chs 3 and 4.

⁵⁰ J Bruner. *Toward a theory of instruction*. (1967) 53.

⁵¹ PA Alexander, DL Schallert and VC Hare. "Coming to terms: how researchers in learning and literacy talk about knowledge." (1991) 61(3) *Review of Educational Research* 315-343.

⁵² PS Breivik and EG Gee. *Information literacy: revolution in the library*. (1989) 22-25.

⁵³ N Gamble and N Easingwood. *ICT and literacy: information and communications technology, media, reading and writing*. (2000) 4.

⁵⁴ PS Breivik and EG Gee. *Information literacy: revolution in the library*. (1989) 23.

Behrens⁵⁵ said of literacy:

Today, literacy is viewed as an evolving concept, its meaning dependent on the social and individual requirements of a specific society. Since literacy has to be considered in its cultural, social, economic and political contexts, its definition should take into consideration the expanding information needs of society.

Snively and Cooper⁵⁶ have debated the pros and cons of the terminology 'information literacy' without arriving at something more suitable. They ultimately noted that what was important was that this new approach required a 'restructuring of the learning process which actively involves the student' and complemented the learning process occurring in other parts of the academic institution. Arp and Woodard and Bruce⁵⁷ indicated that collaboration and partnerships with others outside the field such as educators, students and administrators is vital for the development of IL and IL instruction. Bruce⁵⁸ usefully built on this in a discussion of several models of and standards for IL. These models and standards reflect the fact that IL involves practicing activities (or steps) in the process, acquiring and demonstrating the attributes associated with being information literate and 'becoming aware of different ways of experiencing information use through engaging in relevant information practices and reflection. Changes in educational thinking towards more learner-centred approaches will support similar changes in IL. Bruce⁵⁹ clarified that IL was a learning process which involved experiencing information literacy, reflecting on this 'experiencing' and transferring of this learning by application to other learning situations.

The ALA definition of IL does not quantify the activities associated with becoming literate and does not differentiate between the novice or the expert. Snively and Cooper,⁶⁰ McCrank,⁶¹ Breivik and Gee's⁶² review of scholarship, indicated that the

⁵⁵ S Behrens. "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 318.

⁵⁶ L Snively and N Cooper. "The information literacy debate." (1997) 23(1) *Journal of Academic Librarianship* 9-14.

⁵⁷ L Arp and B Woodard. "Recent trends in information literacy and instruction." (2002) 42(2) *Reference & User Services Quarterly* 129; C Bruce. *Information literacy as a catalyst for educational change: a background paper*. (2002) 11-14. <http://dlsit.sir.arizona.edu/archive/00000300/>. Accessed: 8.10.2004.

⁵⁸ C Bruce. *Information literacy as a catalyst for educational change: a background paper*. (2002) 3. <http://dlsit.sir.arizona.edu/archive/00000300/>. Accessed: 8.10.2004.

⁵⁹ C Bruce. *Information literacy as a catalyst for educational change: a background paper*. (2002) 14. <http://dlsit.sir.arizona.edu/archive/00000300/>. Accessed: 8.10.2004.

⁶⁰ L Snively and N Cooper. "The information literacy debate." (1997) 23(1) *Journal of Academic*

use of the term literacy implies an existence of illiteracy and therefore how is literacy in this instance to be measured?

In current research, emphasis is being placed on the relationship between IL and learning and how an understanding of information searching behaviour can inform IL pedagogy in order to change student conceptions about their interaction with the information environment.⁶³ Lupton's PhD research⁶⁴ resulted in her development of the GeST model. This model proposes that in order for learning and IL to happen, three aspects of an experience with information need to occur. These are the acquisition, application and building of generic skills and knowledge; situated skills and knowledge and the transformation of conceptions about information seeking based on discovery and experience. This model incorporates both the 'what' and the 'how' of IL and in any information seeking situation there is some sequential acquisition of academic techniques and then the application of these techniques. For her, information is a combination of 'that which is perceived, patterns, acts, objects, meaning making and knowledge building.'⁶⁵

2.1.2.2. Skills of information literacy

The use of the term 'skills' is problematic. As indicated above, the word 'skill' is endemic to IL talk but not always clearly defined. Skills are often seen as behavioural not cognitive and unfortunately appear to be held in lower esteem by students because they are perceived as being separate from and less important than 'academic' or substantive course work. Finding a term/s that truly reflect the nature of the activities, thinking and knowledge of being information literate that does not carry the stigma of lower order importance may be more important than defining IL. This study will use the word 'skills' because it is so entrenched in the

Librarianship 9-14.

⁶¹ L McCrank. "Academic programs for information literacy: theory and structure." (1991) 116(8) *Library Journal* 486.

⁶² PS Breivik and EG Gee. *Information literacy: revolution in the library*. (1989) 7.

⁶³ M Lupton. *Information literacy and learning*. (2008) 107. <http://en.scientificcommons.org/41591984>. Accessed: 2.3.2009; C Maybee. "Undergraduate perceptions of information use: the basis for creating user-centred student information literacy." (2006) 32(1) *Journal of Academic Librarianship* 79-85; C Maybee. "Understanding our student learners: a phenomenographic study revealing the ways that undergraduate women at Mills College understand using information." (2007) 35(3) *Reference Services Review* 452-462.

⁶⁴ M Lupton. *Information literacy and learning*. (2008) 107. <http://en.scientificcommons.org/41591984>. Accessed: 2.3.2009.

⁶⁵ M Lupton. *Information literacy and learning*. (2008) 234. <http://en.scientificcommons.org/41591984>. Accessed: 2.3.2009.

discourse of IL but acknowledging its meaning to encompass behavioural and cognitive activities. Moon⁶⁶ has indicated that many writers have failed to deal with the difference between skills and knowledge and that the word 'skill' has been used to reflect a wide range of tasks from the purely physical doing: 'knowing how' to cognitive activity: 'knowing that.' She claimed that a skill 'is a form of the representation of learning and it has the ability to do something that has been learnt.'⁶⁷

Hawes and Hawes⁶⁸ defined the word 'skills' in a way that reflects its cognitive as well as practical and technical meaning: 'A well-developed capability of any kind, including intellectual, physical or artistic capabilities'; hence problem-solving and critical thinking are included. This definition also implies that some skills at least are accrued incrementally. Curzon⁶⁹ explored a number of definitions of skills literacy including: 'organised and coordinated pattern of mental and / or physical activity' and that the defining attributes of a skill are effectiveness and flexibility. In the context of IL, the ultimate goal is to have users who can access, evaluate and use information effectively in a variety of ways and apply the skills to a variety of situations – flexibility. Lenox and Walker⁷⁰ discussed the information literate person using analytic skills to formulate questions; critical skills to 'evaluate experimental and experiential results' and 'possess the skills to search for answers in increasingly complex and diverse ways'. Small, Zakaria and El-Figuigui⁷¹ said the following about skills and IL:

Information literacy is more than a framework of knowledge and a set of skills; it is an attitude that reflects an interest in seeking solutions to information problems, recognition of the importance of acquiring information skills, information confidence rather than information anxiety, and a sense of satisfaction that comes from research competence.

They use the word 'skills' to refer to knowledge of techniques for accessing information as well as ability to critically analyse and evaluate and so on. It is

⁶⁶ JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 15.

⁶⁷ JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 15.

⁶⁸ GR Hawes and LS Hawes. *The concise dictionary of education*. (1983) 207.

⁶⁹ LB Curzon. *Teaching in further education*. 6th ed. (2004) 290-291.

⁷⁰ MF Lenox and ML Walker. "Information literacy: challenge for the future." (1992) 4(1) *International Journal of Information and Library Research* 4.

⁷¹ RV Small, N Zakaria and H El-Figuigui. "Motivational aspects of information literacy skills instruction in community college libraries." (2004) 65(2) *College and Research Libraries* 97.

imperative to see IL as a process within which these interrelated skills operate and develop; IL is not a set of discrete or purely mechanical skills.

IL literature makes much of the need to develop and apply critical thinking skills, yet the library literature appears to give this little consideration in terms of what is meant by critical thinking.⁷² Huitt⁷³ defined critical thinking as: 'The disciplined mental activity of evaluating arguments or propositions and making judgments that can guide the development of beliefs and actions.' He believed critical thinking to be different from creative or 'good' thinking. Critical thinking involves affective, conative and behavioural aspects. Each of these may require different instructional strategies and the complete critical thinking process should incorporate all three. He also advocated the teaching of critical thinking within a specific knowledge domain.⁷⁴ Likewise Nickerson⁷⁵ proposed that thinking within the context of problem-solving must take cognisance of domain knowledge, processes, 'rules' of thumb', attitudes, beliefs and dispositions, values and styles and metacognitive knowledge or, being able to monitor, evaluate and control cognitive performances. Any thinking is a matter of degree and thus thinking skills are difficult to assess.

Norris has indicated the unresolved debates as to whether critical thinking is generalisable, noting that this is an important issue if critical thinking skills development is a goal of formal education. These debates have included whether critical thinking is inherent to certain individuals or whether critical thinking can be characterised by a set of assumptions and descriptions that can be attained, albeit by degree.⁷⁶

⁷² JJ Doherty.. "Teaching information skills in the information age: the need for critical thinking." (1999) 1(2) *Library Philosophy and Practice* 15p. <http://www.webpages.uidaho.edu/~mbolin/doherty.htm>. Accessed: 8.12.2004.

⁷³ W Huitt. *Critical thinking: an overview*. (1998) 5. www.tcc.edu/welcome/collegeadmin/OIE/SOA/review/toolkit/documetns/Article_Critical_Thinking_An_Overview_by_Whuitt_May1998.pdf. Accessed 12.7.2005.

⁷⁴ W Huitt. *Critical thinking: an overview*. (1998) 5- 8. www.tcc.edu/welcome/collegeadmin/OIE/SOA/review/toolkit/documetns/Article_Critical_Thinking_An_Overview_by_Whuitt_May1998.pdf. Accessed 12.7.2005.

⁷⁵ RS Nickerson. The teaching of thinking and problem solving. In: Sternberg, RJ. *Thinking and problem solving*. (1994) 414-422.

⁷⁶ SP Norris. Introduction: the generalizability question. In: Norris, SP. *The generalizability of critical thinking: multiple perspectives on an educational ideal*. (1992) 1-16.

Lankshear ... et al.⁷⁷ in a book on literacies, argued that terms like 'critical thinking' are often used without being defined or described, the use of which are presumed to indicate a path to or an answer to a problem. Its usage often has the appearance of making a concept or activity to which it is attached reflect something more positive than its non usage. For example, 'critical thinking' brings to mind a higher order and positive kind of mental activity than 'thinking' on its own. The word 'critical' implies attendant criteria with which to distinguish it from non-critical and there appears to be no consensus about these criteria. These criteria are socially constructed against values, norms and procedures and the criteria will be different for different discourses, in different settings of both time and place and thus 'critical' is transformable. They argued it is impossible to practice 'being critical'⁷⁸ without these values or procedures being in place.

They did however indicate that there are two common characteristics of all critical practices. These are judgment or evaluation (as mentioned by Huitt above) and knowing the object of that being evaluated. Being 'critical' is then contextualised and often highly context-specific. In the study of law for example, thinking critically about problem-solving will most likely differ considerably in some respects from another discipline because of the underlying nature, values, practices and assumptions inherent to the discipline. For an IL programme, the challenge lies in enabling learners to understand this underlying nature, values, processes and so on of the information environment and how to then think within particular frameworks.

As different situations present themselves, these skills are refined through time with practice. Alongside this are questions the answers to which have yet to be fully explored, namely: 'how do people decide what information they need in specific contexts? How do they determine where to look for it? By what criteria do they decide to stop looking? How is their information seeking behaviour influenced by effort and other types of costs?'⁷⁹ It is perhaps because these questions go unanswered for librarians that the 'how' of IL teaching and appropriate methods of assessment is still being investigated.

⁷⁷ C Lankshear, C ... et al. *Changing literacies*. (1997) 40-47.

⁷⁸ C Lankshear, C ... et al. *Changing literacies*. (1997) 42.

⁷⁹ PS Breivik and EG Gee. *Information literacy: revolution in the library*. (1989) 25.

The California School Library Association claimed that ‘although the definition of information literacy may appear to be simple, the concept is complex.’⁸⁰ The Association has determined a search process model, a synthesis of a number of such models. The model has three perspectives which are interdependent. The searcher’s thinking stimulates the search process; the search process determines an instructional strategy appropriate to the situation and the instructional strategies which involve the teacher recommending courses of action. Arp and Woodard⁸¹ noted that whilst content and specific skills of IL will change over time, particularly given the changes in technology, the conceptual frameworks that IL is built upon will not change. ‘Making technologies available to the world is not enough.’⁸² Students need authentic learning situations in which to learn how to be information literate as information in the real world is not pre-packaged and information underpins all problem based learning and active learning.

To summarise, in Bruce’s words:

Essentially, information literacy is seen as the ability to confront novel situations, and to deal with those situations on the basis of being equipped with a process for finding and using the necessary information. The precise nature of the process however, varies from person to person. Effective action, problem-solving or decision-making is the outcome of the experience.⁸³

A small and growing body of literature considers the concept of information fluency. The ACRL’s IL competency standards for higher education make reference to fluency in IL, indicating fluency to reflect understanding concepts underlying the use of information technology and problem-solving skills, higher order knowledge and understanding beyond rote learning.⁸⁴ Harris and Millet⁸⁵ considered the problem of defining this concept and suggested those that advocate fluency to be an integration

⁸⁰ California School Library Association. *From library skills to information literacy: a handbook for the 21st century*. 2nd ed. (1997) 9-13.

⁸¹ L Arp and BS Woodard. “Recent trends in information literacy and instruction.” (2002) 42(2) *Reference & User Services Quarterly* 127-128.

⁸² C Bruce. *Information literacy as a catalyst for educational change: a background paper*. (2002) 5. <http://dlsit.sir.arizona.edu/archive/00000300/>. Accessed: 8.10.2004.

⁸³ C Bruce. *The seven faces of information literacy in higher education*. (1997) 3. <http://sky.fit.qut.edu.au/InfoSys/bruce/infit/faces/faces1.htm>. Accessed: 28.9.2004

⁸⁴ ACRL. *Information literacy competency standards for higher education*. (2000). <http://www.ala.org/ACRL/Printer.cfm?Section=acrstandards&Template=/C>. Accessed: 14.12.2004.

⁸⁵ BR Harris and MS Millet. “Nothing to lose: ‘fluency in information literacy theory and practice.’” (2006) 34(4) *Reference Services Review* 520-535.

of information technology, IL and critical thinking and other literacies are presuming that all these elements are discrete whereas in fact they overlap and each comprises a range of competencies/skills/knowledge. The use of the word fluency may project a more positive image than literacy in the higher education environment.

2.1.3. HISTORY OF THE DEVELOPMENT OF INFORMATION LITERACY

Several authors have provided useful timelines of the evolution of the concept of IL in the modern times as per its characteristics and growing acceptance as an integral part of the education curriculum.⁸⁶ In the 1970s IL was seen as undergoing refinement in terms of the new skills required of IL namely the effective and efficient use of information for problem-solving and decision making over and above identifying and locating information. New strategies for teaching IL were being investigated and the information process was seen as a continuum. Actual skills and knowledge required for handling information were not yet forthcoming. In the 1980s it was necessary to distinguish between computer literacy and IL⁸⁷ as well as an increasing recognition of information searching being need driven. In addition, with the advent of multimedia technology, information searching became an integrated set of skills rather than being solely library dependent. It has been acknowledged that new intellectual processes are needed to master new technologies. A broader description of IL was mooted as including understanding the role and power of information and mastery of the necessary electronic processes to manipulate information.

There was also much debate about how to integrate IL into the mainstream curriculum. Breivik and Gee⁸⁸ were pioneers in this area. Information was being recognised as being situated within specific social, economic and political contexts.

⁸⁶ MB Eisenberg, CA Lowe, KL Spitzer. *Information literacy: essential skills for the information age*. (2004) 187-207; S Behrens. "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 312-322; J Kanter. "Guidelines for attaining information literacy." (1996) 12(3) *Information Strategies: the Executive's Journal* 1-7. Ebscohost. Accessed: 16.02.2004; R Moore. *Library educational services for the next millennium*. (1999). <http://128.226.37.29/collab/cover1.htm>. Accessed: 18.10.2004; 18.12.2004; B Johnston and S Webber. "Information literacy in higher education." (2003) 28(3) *Studies in Higher Education* 335-352; S Deese-Roberts and K Keating. *Library instruction: a peer tutoring model*. (2000) 1-17.

⁸⁷ S Behrens. "A conceptual analysis and historical overview of information literacy." (1994) 55(4) *College and Research Libraries* 311.

⁸⁸ PS Breivik and EG Gee. *Information literacy: revolution in the library*. (1989).

In the academic library information literacy needed to be student centred and evaluation of IL programmes was essential for viability of such programmes. The debate over the definition of IL continued. The active learning approach was advocated for IL programmes along with the recognition of a need for a new education philosophy. In the late 1980s the American Library Association formulated the now widely accepted definition of IL. Standards and guidelines for IL started to emerge in numerous countries as did various models.⁸⁹

The 1990s saw the outcomes of IL reflecting cognitive and active learning principles with outcomes using terminology such as recognises, formulates, identifies, develops, evaluates, integrates, organises and so on. The recognition of the information society and the need for the transferability of IL skills and knowledge informed much research and related questions about how learners learn, mental models, information seeking behaviour and the need to view IL as a way of learning not a set of mere mechanical skills. In the current decade standards continue to be developed and numerous initiatives to develop programmes that reflect collaboration between library and academic staff have been reported.

2.1.4. RESEARCH INTO INFORMATION LITERACY AND RESEARCH AGENDAS

Research about information literacy theory and practice and terrains has and is occurring within a global concern with information and development. International and regional institutional developments have noted the power of and necessity for information skills and knowledge in order to meet the socio-economic-political and development challenges of the new millennium. Some of these such as UNESCO's Communication and Information Sector which has sponsored an international colloquium on IL and lifelong learning, have recognised IL as encompassing more than ICT skills and acknowledged the role of information workers and librarians and libraries in lifelong learning and knowledge development.⁹⁰ Others⁹¹ have

⁸⁹ C Bruce and P Candy's book : *Information literacy around the world: advances in programs and research* (2000) provides useful case studies of standards and practices in various countries.

⁹⁰ UNESCO. Information literacy. [200-?]. <http://portal.unesco.org/ci/en/>. Accessed: 1.3.2009; SD Garner. *High-level colloquium on information literacy and lifelong learning*. (2006). www.infla.org/III/wsis/High-Level-Colloquium.pdf. Accessed: 1.3.2009; UNESCO. *Asia Pacific Information Network*. [2004]. <http://portal.unesco.org/ci/en/ev/>. Accessed: 1.3.2009

emphasised the role of ICT without considering a holistic approach to information literacy and empowerment, and ignored the role libraries and information workers may play. Many national and regional IL groups have been established to support awareness of and need for IL, promote support of and training of IL practitioners and encourage research to reinforce the underlying place of IL in the knowledge and information environment. Some have concretised research agendas albeit in broad terms (see below).

Alongside the technological revolution, changes in higher education such as the focus on lifelong learning, the emphasis on learning how to learn, and renewed interest in different approaches to teaching and learning such as constructivism (see section 2.3.2) have impacted on IL. IL is now being viewed more expansively in terms of its characteristics, how it should be taught and the need to orient IL research in directions such as the impact of IL programmes on student performance and appropriate skills and knowledge for becoming IL. Much research still emanates from the higher education sector but slowly its influence in other spheres is being recognised.

Forums that have established guiding principles and plans of action and in some instances research agendas at a macrolevel include IFLA, the National Forum on Information Literacy (United States) established in 1979; the ACRL's Institute for Information Literacy; UNESCO's information literacy chapter; NORDINFOLIT, the Nordic countries' information literacy collaboration and EnIL, the European Network on Information Literacy both of which were established in 2001; the World Summit on the Information Society developing through two phases in 2003 and 2005; the Asia Pacific Information Network and the National Information Literacy Agenda of Malaysia established in 2004 and 2005 respectively.⁹² All have as their goals the

⁹¹ For example the Commission of the European Communities. *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the regions.* (2004).

http://ec.europa.eu/information_society/eeurope/2005/doc/all_about/new_chall_en_adopted.pdf.

Accessed: 1.3.2009

⁹² A K Boekhorst. Information literacy section. (2008). In: Iflanet: activities and services.

<http://www.ifla.org/VII/s42?index.htm>. Accessed: 1.3.2008; National Forum on Information Literacy.

<http://www.infolit.org/>. Accessed: 1.3.2008; UNESCO. Information literacy. [200-?].

<http://portal.unesco.org/ci/en>. Accessed: 1.3.2009; C Tovote. "NORDINFOLit." (2004) *IFLA Newsletter*.

<http://www.ifla.org/VII/s42/news/ILN-200412.pdf>. Accessed: 1.3.2009; C Basili. *EnIL: a network for a culture of information in Europe.* (2008). <http://www.ceris.cnr.it/Basili/EnIL/network.htm>. Accessed:

promotion of IL as underlying the upskilling, empowerment and development of societies as well as professional development of information workers as regards IL and training for teaching IL.

A prominent feature of some of these initiatives, is development of ICT skills. Some explicitly promote the role of library and information workers within the information society and professional development, the need to embrace IL as a broader goal of which ICT is one part, the impact of IL on learning outcomes, and marketing, partly through research. These include ANZIIL, the Australian and New Zealand Institute for Information Literacy, the 'Alexandria Proclamation' which specifies basing policies and practices on research – proclamation 2;⁹³ learner IL competencies in higher education research has begun under the auspices of EnIL; both the ACRL and the ALA research IL standards and best practices.

The American College and Research Libraries research agenda⁹⁴ was recently reviewed after the first research agenda was drawn up over 20 years ago. The new agenda claimed many original issues still lacked research and new issues have emerged that raise questions and have initiated research. As regards learners, there is still a need to understand more about the demographics of these populations, their information seeking behaviour, technical competencies and so on.⁹⁵ Library instruction now caters for previously underserved groups, namely English as second language speakers, international students, students with disabilities and the like. Research is still needed to establish how diversity is impacting on library instruction and how instruction can adapt to meet the changing

1.3.2009; United Nations. *World Summit on the Information Society*. [2001]. <http://www.itu.int/wsis/basic/about.htm>. Accessed: 1.3.2009; UNESCO. *Asia Pacific Information Network*. [2004]. <http://portal.unesco.org/ci/en/ev/>. Accessed: 1.3.2009; NN Edzan and SMS Mohd. "NILA: a national information literacy agenda for Malaysia." (2005) 10(1) *Malaysian Journal of Library & Information Science* 91-103.

⁹³ SD Garner. *High-level colloquium on information literacy and lifelong learning*. (2006).

www.infla.org/III/wsis/Hihg-Level-Colloquium.pdf. p 6, 12. Accessed: 1.3.2009.

⁹⁴ ACRL IS. "Research agenda for library instruction and information literacy". (2003) 25 *Library and Information Science Research* 479-487.

⁹⁵ Some work has been undertaken, for example: J Heinstrom. "Fast surfing, broad scanning and deep diving: the influence of personality and study approach on students' information-seeking behaviour." (2005) 61(2) *Journal of Documentation* 228-247; C Kuhlthau. "Inside the search process: Information seeking from the user's perspective." (1991) 42(5) *Journal of the American Society for Information Science* 361-371; C Kuhlthau. "Accommodating the user's information search process: Challenges for information retrieval system designers." (1999) 25 *Bulletin of the American Society for Information Science* 12-16; S Wilder. "Information literacy all the wrong assumptions." (2005) Ja 7 *Chronicle of Higher Education* B13 p3.

nature of user groups. There is still a dearth of research as regards the impact of technology and the Web on information seeking behaviour and whether technology has altered the need for certain types of skills. Acknowledgement of learning styles has progressively gained recognition.⁹⁶

As regards teaching, much research has been done and still needs to be done with respect to pedagogy, methods, design and implementation of programmes as well as establishing what the effective models for teaching are, given the holistic approach required by the definition and characteristics of IL. Researchers are investigating different conceptual, theoretical and active learning approaches to IL teaching.⁹⁷

A review of an ongoing bibliography⁹⁸ compiled by the ACRL, indicated that despite the holistic nature of IL, most programmes are still highly context and audience specific so generalisation of findings is difficult. Methods of instruction need further investigation with respect to the effectiveness of types of delivery and how online resources should be taught. The impact of organisational models within which libraries operate and relationships with academic staff largely depend on the institutional environment. The teaching role of librarians and their status as such

⁹⁶ A search of the *Library Literature* database indicates over 50 articles that the author could identify concerning learning theories and library instruction specifically; but learning theory was well acknowledged already in the 1980s for example AS Clark and KF Jones. *Teaching librarians to teach: on-the-job- training for bibliographic instruction librarians.* (1986). The ACRL runs annual training programmes in information literacy which include a section on learning theory and styles: <http://ala.org/ala/acrl/acrlissues/acrlinfolit/professactivity/il/immersion/Immersion>. Accessed: 2.7.2005; PR Krajewski and VB Piroli. Something old, something new, something borrowed, something blue: active learning in the classroom. In: Durisin, P. *Information literacy programs: successes and challenges.* (2002) 177-194; S. Bodi. "Teaching effectiveness and bibliographic instruction: the relevance of learning styles". (1990) 51 *College and Research Libraries* 113-119.

⁹⁷ For example: R Norgaard. "Writing information literacy: contributions to a concept." (2003) 43(2) *Reference and User Services Quarterly* 124-130; MH Simmons. "Librarians as disciplinary discourse mediators: using genre theory to move toward critical information literacy." (2005) 5(3) *Libraries and the Academy* 297-311. Online: Project Muse. Accessed: 10.10.2005; S Bodi. "How do we bridge the gap between what we teach and what they do? Some thoughts on the place of questions in the process of research." (2002) 28(3) *Journal of Academic Librarianship* 109-114; KS Dabbour. "Applying active learning methods to the design of library instruction for a freshman seminar." (1997) 58(4) *College and Research Libraries* 299-309; K Manuel. "Teaching information literacy to Generation Y". (2002) 36(1-2) *Journal of Library Administration* 195-217; M Reichel and M-A Ramey. *Conceptual frameworks for bibliographic education: theory into practice.* (1987).

⁹⁸ ACRL. Instruction Section's Research and Scholarship Committee: *Bibliography of citations related to the research Agenda for Library Instruction and Information Literacy*, 2003 -. <http://ala.org/ala/acrl/>. Accessed: 18.12.2004.

often affects how information literacy programmes are implemented and maintained.

Much work still needs to be done as regards evaluation of IL programmes. Their effectiveness has proved difficult to measure yet evaluation is often a major factor in determining the value of programmes in the eyes of parent institutions. Some of the questions pertaining to evaluation are: what are the most appropriate and effective methods of evaluation; what variables should be used to measure outcomes and how should librarians be evaluated as teachers?

Most of the research literature focuses on first year programmes and surveys, case studies and pre- and post-tests still serve as the most popular tools of assessment. Assessment needs to be considered as formative and summative and reflect the learning process.⁹⁹ Whilst one of the main goals of IL programmes is life long learning, the impact of such programmes on academic success seems to be indeterminate. Authors like McCrank and Kaplowitz¹⁰⁰ however, believe that because IL is a process and so relative to a situation and individual, and not a product there is no ultimate measure of its success and advanced IL programmes inevitably become context specific. Catts¹⁰¹ reviewed assessment in IL and concluded that IL should be assessable. He noted that traditionally in higher education institutions theory and practice were tested separately. Rather, a holistic approach is needed and methods such as the use of portfolios lend themselves to holistic assessment. Current research focuses on assessing instruction designed for specific purposes and usually considers student attitudes and opinions of library instruction.¹⁰²

⁹⁹ M Bloomfield. Testing for library-use competence. In: Lubans, J. *Educating the library user*. (1974) 221-231; R Werking. "Evaluating bibliographic education: a review and critique." (1980) 29 *Library Trends* 153-172; BG Lindauer. "The three arenas of information literacy assessment." (2004) 44(2) *Reference & User Services Quarterly* 122-9; KR Smith. "New roles and responsibilities for the university library: advancing student learning through outcomes assessment." (2001) 35(4) *Journal of Library Administration* 29-36; BK Stripling. "Learning-centred libraries: implications from research." (1995) 23(3) *School Library Media Quarterly* 163-170; EF Avery. (ed.). *Assessing student outcomes for information literacy instruction in academic institutions*. (2003) provides a useful collection of programme outlines.

¹⁰⁰ L McCrank. "Academic programs for information literacy: theory and structure." (1991) 116(8) *Library Journal* 486; J Kaplowitz and J Contini. "Computer assisted instruction: is it an option for bibliographic instruction in large undergraduate survey classes?" (1998) 59(1) *College and Research Libraries* 19-27.

¹⁰¹ R Catts. Some issues in assessing information literacy. In: C Bruce and P Candy. *Information literacy around the world*. (2000) 271-283.

¹⁰² ACRL IS Research and Scholarship Committee. "Research agenda for library instruction and information

Librarians need to establish that IL skills and knowledge are transferable to different learning situations in order to promote collaboration with faculty.¹⁰³ It has been suggested that part of the problem and challenge for librarians is that there is a lack of longitudinal studies on the impact of IL from one educational level to the next and to different learning contexts. In a response to a European Commission report on the information society, the Chartered Institute for Information Professionals of the United Kingdom also noted that there is a lack of empirical research into the transferability of IL skills between sectors and their impact on learning and decision-making.¹⁰⁴ The characteristics of the literature on collaboration have been usefully overviewed by Booth and Fabian¹⁰⁵ and they claimed that most research has focussed on collaboration at course level rather than programme or faculty administrative level or institutional level. It has been suggested that the differences between faculty and library ethos form stumbling blocks to collaboration. Faculty concerns are often with 'disciplinary integrity, subject expertise, research and autonomy' and academic status while the concern of the library is often across boundaries, product rather than the process of research and student learning. The perceived non-academic status of librarians can negatively affect the development of proper partnerships.¹⁰⁶

Some recent trends with respect to IL have been noted.¹⁰⁷ These include the emergence of standards and guidelines; changing definitions of IL as well as why librarians do what they do as regards teaching and IL; a rise in plagiarism; increasing impact of the digital age and emerging new teaching methods and technical delivery of instruction programmes. They charge that most library

literacy." (2003) 25 *Library and Information Science Research* 479-487.

¹⁰³ Laurillard notes that it is generally accepted that students do not transfer their knowledge from one situation to another in the academic setting – D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002) 12. E De Corte. Designing learning environments that foster the productive use of acquired knowledge and skills. In: De Corte, E ... et al. *Powerful learning environments: unravelling basic components and dimensions*. (2003) 21-34 notes that how, when and if transfer takes place is an issue of much debate.

¹⁰⁴ Anon. *Response to EC public online consultation on the Challenges for a European Information Society policy beyond 2005*. [2005]. ec.europa.eu/information_society/eeurope/i2010/docs/challenges/responses/chartered_institute_of_information_professionals.doc. Accessed: 1.3.2009.

¹⁰⁵ A Booth and CA Fabian. Collaborating to advance curriculum-based information literacy initiatives. In: Durisin, P. *Information literacy programs: successes and challenges*. (2002) 125-127.

¹⁰⁶ A Hardesty. "Faculty culture and bibliographic instruction: an exploratory analysis." (1995) 44(2) *Library Trends* 339-367.

¹⁰⁷ L Arp and BS Woodard. "Recent trends in information literacy and instruction." (2002) 42 (2) *Reference & User Services Quarterly* 124-132.

instruction is still highly contextual. Bruce reiterated ¹⁰⁸ that despite the active promotion of IL, little is known about 'how it is experienced by those who use information.'

In an interesting approach to the research agenda in IL, Bruce¹⁰⁹ notes that IL research is still in its infancy and the research agenda ill-defined and constantly being constructed, affected by the interests of individuals, disciplinary influences and research funding. A collective consciousness of IL researchers is developing. Since the 1970's she claims that IL research has started to embrace multiple sectors, multiple disciplines and a broader range of research questions.

Her review of current IL research agendas is expressed in terms of different terrains. Much research is still based in the educational sector (sectoral terrain) which has resulted in projects that have considered student IL abilities; a range of factors affecting levels of IL in learners such as race, gender and so on; the evolving definition and character of IL and ways of experiencing information and learning; curriculum and programme issues. Increasingly, IL researchers are drawing on a range of disciplines which have affected what and how research has been undertaken.

Research has also focused on user needs and attributes, experiences and perceptions with, and of, IL, the relationship between information seeking and use (ways of seeing information) as well as knowledge structures. IL research has also shown the adoption of particular theoretical frameworks and approaches such as critical theory, phenomenography and constructivism that have been used particularly to understand learners' ways of seeing the world. A wide range of tools for undertaking research has also been used.

Bruce argues that IL research is starting to break out of the education sector mould and consider IL within workplace and community settings. Current research (see

¹⁰⁸ C Bruce. *The seven faces of information literacy in higher education* . (1997).
<http://sky.fit.qut.edu.au/InfoSys/bruce/infit/faces/faces1.htm>. Accessed: 28.9.2004.

¹⁰¹ C Bruce. "Information literacy research: dimensions of the emerging collective consciousness." (2000)
31(2) *Australian Academic Research Libraries* 91-109.

Lloyd, Lupton and Maybee)¹¹⁰ is also paying more attention to the context specific nature of IL and how learners interact with and experience information. Research agendas according to Bruce are expanding to consider IL within the multicultural world, outside of the Eurocentric text-based focus, information and knowledge and skills acquisition outside of technological developments, assessment of IL programmes, barriers to IL programme implementation and strategies for enabling IL.

This author's current research is situated within the research agenda in a number of ways. It embraces a multidisciplinary approach to understanding IL and a more expansive definition through consideration of research and practice with regard to teaching, learning and learner characteristics, higher education characteristics, and the study of law and legal research. The current research reflects a particular paradigm, that of constructivism which advocates a focus on how the individual constructs meaning and responds to a situation. The current research acknowledges the need to support the context specific nature of IL and the attention to the application of real life situations. This has been undertaken through the design of a legal research module from an information literacy paradigm using an instructional design model that focuses on active learning and a real life problem-solving situation. The current research takes cognisance of the characteristics of learners by investigating their learning styles and some demographic characteristics and work habits of the participants in the research. The development and adoption of sound pedagogical principles with respect to teaching and learning and assessment was undertaken in terms of developing the module in the current research against the backdrop of constructivist teaching and learning principles, the nature of the study of law and standards developed by information literacy bodies. Although situated within the formal higher education environment, the study attempted to undertake research that reflected a multidimensional approach to IL.

¹¹⁰ A Lloyd. "Information literacy landscapes: an emerging picture." (2006) 62(5) *Journal of Documentation* 570-583; M Lupton. *Information literacy and learning*. (2008) 107.

<http://en.scientificcommons.org/41591984>. Accessed: 2.3.2009; C Maybee. "Undergraduate perceptions of information use: the basis for creating user-centred student information literacy." (2006) 32(1) *Journal of Academic Librarianship* 79-85; C Maybee. "Understanding our student learners: a phenomenographic study revealing the ways that undergraduate women at Mills College understand using information." (2007) 35(3) *Reference Services Review* 452-462.

2.1.5. CONSTRUCTIVISM AND ACTIVE LEARNING

The process approach to IL as explored by Kuhlthau in 2.1.1¹¹¹ and the ACRL standards and objectives presented in 2.1.7.4. presuppose active learning and a constructivist approach to IL. Thus these are not new ideas but have not necessarily been easy to incorporate in formal IL programmes for reasons of large class size, time frames in which to conduct IL programmes and availability of resources. In terms of conceptualising, planning, delivery and assessment of an IL programme, the problem-solving focus of IL is considered to better be reflected in the constructivist approach to learning and teaching rather than the behaviourist approach.¹¹² Loertscher and Woolls¹¹³ described the differences between the two approaches. A teacher who adopts behaviourist techniques teaches in a highly structured way, having absolute control over learning in terms of what, when and how learning takes place so the learning environment is prescriptive and caters more for group than individual needs. This approach focuses on skills, knowledge and attitudes and measurable objectives.¹¹⁴

The constructivist on the other hand, emphasises the problem-solving approach and requires learners to be actively involved in and take responsibility for much of their learning. Learners construct knowledge. Such teachers are also more likely to warm towards collaboration. 'Both philosophies work towards the same ends but use very different strategies. Constructivism requires the student to gain control of learning; behaviourism requires the student to trust the teacher's direction.'¹¹⁵

¹¹¹ C Kuhlthau. "An emerging theory of library instruction." (1987) 16(1) *School Library Media Quarterly* 5-31.

¹¹² B Stripling. "Learner-centered libraries: implications from research." (1995) 23(3) *School Library Media Quarterly* 163 – 170; JO Carey. "Library skills, information skills, and information literacy: implications for teaching and learning." (1998) 1 *School Library Media Research Online* 1-19.
www.ala.org/ala/aasl/aaslpubsandjournals/slmrb/slmrcontents/. Accessed 22.10.04; J Brewer. "Beyond the book 'case'." (1997) 15(3) *Research Strategies* 177-186; B Tyler. "Active learning benefits all learning styles: 10 easy ways to improve your teaching today." (2003) 11(3) *Perspectives: Teaching Legal Research and Writing* 106-111. Online: Westlaw. Accessed: 10.12.2004.

¹¹³ DV Loertscher and B Woolls. *Information literacy: a review of the research: a guide for practitioners and researchers*. 2nd ed. (1998) 57 -58.

¹¹⁴ C Bruce. "The relational approach: a new model for information literacy." (1997) 3 *New Review of Information and Library Research* 6-7.

¹¹⁵ DV Loertscher and B Woolls. *Information literacy: a review of the research: a guide for practitioners and researchers*. 2nd ed. (1998) 69.

Bruce,¹¹⁶ in a comparison of behaviourist and constructivist approaches, indicated that the constructivist approach focuses not on skills and tasks but rather the design of learning experiences for learners to interact with information. Dixon-Krauss¹¹⁷ provided a useful overview of practical application of the constructivist approach in the classroom. In terms of IL, the behaviourist approach would reflect teaching and learning IL as a list of skills taught through a series of steps.¹¹⁸ Arp and Woodard and Limberg¹¹⁹ view the constructivist paradigm in IL as focussing on higher order thinking and problem-solving in a collaborative environment and where skills and knowledge form an integrated whole within a context. Fewer topics may be covered and in greater depth rather than a focus on facts.

The above authors conceded that in practice a combination of both approaches is likely to occur. A constructivist approach then presupposes use of active learning techniques. Sections 2.1.3. and 2.1.4. have indicated that much of the writing about IL programmes in academic libraries has been context specific. Much of this writing has highlighted the use of active learning techniques as part of changing nature of teaching IL. The characteristics of a constructivist approach and an active learning will be discussed more fully in sections 2.3.4. and 2.3.7.4. of this chapter.

2.1.6. INFORMATION LITERACY IN SOUTH AFRICAN HIGHER EDUCATION INSTITUTIONS

South African publications reflect a growing interest in IL in public and educational libraries, although it is acknowledged that the level of interest is not reflected in the small number of existing publications and theses.¹²⁰ The small body of literature

¹¹⁶ C Bruce. "The relational approach: a new model for information literacy." (1997) 3 *New Review of Information and Library Research* 7-9.

¹¹⁷ L Dixon-Krauss. *Vygotsky in the classroom: mediated literacy instruction and assessment* (1996).

¹¹⁸ B Johnston and S Webber. "Information literacy in higher education." (2003) 28(3) *Studies in Higher Education* 344.

¹¹⁹ L Arp and BS Woodard. "Recent trends in information literacy and instruction." (2002) 42 (2) *Reference & User Services Quarterly* 131. See also an application of a constructivist model to IL by AS Macklin, "Theory into practice: applying David Jonassen's work in instructional design to instruction programs in academic libraries." (2003) 64(6) *College and Research Libraries* 494-500; L Limberg. Is there a relationship between information seeking and learning outcomes? In: Bruce, C and Candy, P. *Information literacy around the world*. (2000) 193.

¹²⁰ K De Jager and M Nassimbeni. "An exploration of the current status of information literacy tuition in South African tertiary institutions and proposals for curriculum design." (2003) 69(2) *South African Journal of Libraries and Information Science* 108-113; De Jager, K. "Institutionalizing information literacy in tertiary

concerning actual IL programmes in specific situations is growing steadily however. Various South African authors have considered the debate around definitions and characteristics of IL; training that librarians need in order to teach IL; learner characteristics and the problematic situation South Africa faces in terms of the inequalities of the pre-1994 era including access to and quality of educational opportunities.¹²¹

At national level, several acts of parliament and government investigations have recognised a need for IL in order to redress the imbalances of the past caused by Apartheid policies.¹²² Differential access or a lack of access to a wide range of facilities and opportunities has resulted in a dichotomous citizenry of advantaged and disadvantaged persons and the challenge is now to equalise the opportunities. As indicated in Chapter one, prior to 1994 and the change to a democratic government, provision of and access to all facilities – social, economic, legal, political, educational etc. was differentiated and unequal, based upon race. The problems of overcoming these inequalities, integration of groups and providing access and opportunities to all are enormous, no less in the HE sector. The particular context for providing IL to university students in South Africa includes:

- national surveys undertaken around the turn of the millennium that have shown that only 35.47% of schools had libraries¹²³ and 13.5% of schools had computer facilities¹²⁴
- rote learning was the model for education in school

education: lessons learned from South African programmes.” (2002) *Library Trends* 108-113; G Hart. *The readiness of public libraries in South Africa for information literacy education: the case of Mpumalanga province*. Cape Town: University of Cape Town (2005). Unpublished PhD thesis.

¹²¹ D Selematsela. *Strategies in information literacy instruction in academic information services*. (2006); Y Sayed. *The segregated information highway: information literacy in higher education*. (1998) 3-9; G Hart. “Public librarians and information literacy education: views from Mpumalanga province.” (2006) 72(3) *South African Journal on Libraries and Information Science* 172-184; South Africa. NCHE. *An overview of a new policy framework for higher education transformation*, (1996) 1-5.

¹²² The National Library of South Africa Act 92 of 1998 lists the objects of the National Library in section 3. These are fostering IL, and facilitating access to the world’s information resources. National Council for Library and Information Services Act 6 of 2001. The definitions in section 1 define IL as ‘ability of learners to access, use and evaluate information from different sources, in order to enhance learning, solve problems and generate new knowledge.’ Section 4: Functions of the Council, includes the promotion of IL and a culture of reading. Underlying the South African Qualifications Authority are several generic outcomes embedded in all programmes. These include learners being able to collect, analyse, organise and critically evaluate information, identify and solve problems and communicate effectively.

¹²³ South African. Government Communication Information System. *About South Africa: Education*. <http://www.info.gov.za/aboutsa/education.htm#tsro> (2006). Accessed: 20.8.2006.

¹²⁴ South Africa. Department of Education. *Information and Communication Technology (ICTs) audit – Computers in schools*. (2001) 8.

- students arrive at university with particular prior knowledge and variant deficiencies in terms of exposure to a range of information sources and reading capacity
- higher education curricula were and still are largely built on the European models
- South Africa has 11 official languages yet most higher education institutions teach in English
- many students are disadvantaged as a result of political separation at all levels and activities of social, political and economic life.¹²⁵

De Jager and Nassimbeni provided a useful overview of the changing higher educational landscape post 1994 in terms of the national goals of reconstruction and development to address inequalities of the past and the implications for information literacy in South Africa.¹²⁶ As indicated in Chapter one, CHELSA is now trying to map tertiary institutional IL as a platform for strategic planning. De Jager and Nassimbeni concluded that there was little evidence of institutional buy in by higher educational institutions for IL or policy statements; underdeveloped attempts at integration of IL programmes within curriculum and a dearth of IL programmes that included ‘higher order’ skills.¹²⁷ However, their survey work does indicate an increased concern with IL by academic librarians. Sayed’s¹²⁸ survey of an IL initiative and needs survey across multiple institutions in the Western Cape highlighted the unequal access to information resources of learners prior to attending university, the need to embed IL in subject knowledge, and the diversity of the South African student body creating particular challenges for IL delivery. The challenges facing students entering law studies is outlined in section 2.2 of this chapter.

¹²⁵ S Gravett and H Geysler. *Teaching and learning in higher education*. (2004); JD Jansen. “On the state of South African universities.” (2003) 17(3) *South African Journal of Higher Education* 9-12; JDJansen. Changes and continuities in South Africa’s higher education system, 1994 to 2004. In: Chisholm, L. ed. *Changing class: education and social change in post-Apartheid South Africa*. (2004) 293-314.

¹²⁶ K De Jager and M Nassimbeni. “An exploration of the current status of information literacy tuition in South African tertiary institutions and proposals for curriculum design.” (2003) 69(2) *South African Journal of Libraries and Information Science* 108-114.

¹²⁷ K De Jager and M Nassimbeni. “Information literacy and quality assurance in South African higher education institutions.” (2005) 55(1) *Libri* 31-38.

¹²⁸ Y Sayed. *The segregated information highway: information literacy in higher education*. (1998).

2.1.7. INFORMATION LITERACY PROGRAMME CHARACTERISTICS, PROGRAMME DESIGN, STANDARDS AND OBJECTIVES FOR INFORMATION LITERACY PROGRAMMES

2.1.7.1. Programme characteristics

The ACRL document on best practices¹²⁹ indicates characteristics of IL programmes at a macro level. These characteristics cover ten areas:

- a mission statement for an IL programme – which includes a definition of IL, is consistent with competency standards and is in tandem with institutional mission statements
- goals and objectives – which must be consistent with the goals and objectives of programmes; establish measurable outcomes for evaluation; reflect sound pedagogical practice; accommodate student growth in skills and understanding; apply to all learners; reflect desired outcomes and ‘articulate the integration of information literacy across the curriculum’¹³⁰
- planning – this includes articulating the programmes’ mission and goals incorporating findings from environmental scans; involving students, faculty, librarians and other appropriate constituents
- administration and institutional support – which includes recognition and support of such programmes at institutional level
- articulation with the curriculum – which includes identifying scope of competencies to be acquired and where the programme will be situated
- collaboration – which covers working together of faculty and librarians to develop and deliver a programme
- pedagogy – which covers support for diverse approaches to teaching and taking cognisance of learning styles and student learning
- staffing
- outreach

¹²⁹ ACRL. *Characteristics of Programs of Information Literacy that Illustrate Best Practices: a Guideline.* (2003). <http://www.ala.org/ACRLPrinterTemplate.cfm?Section=acrIstandards&Template=/C>. Accessed: 12.14.2004.

¹³⁰ ACRL. *Characteristics of Programs of Information Literacy that Illustrate Best Practices: a Guideline.* (2003). 2. <http://www.ala.org/ACRLPrinterTemplate.cfm?Section=acrIstandards&Template=/C>. Accessed: 12.14.2004.

- assessment – which focuses on the need for diverse assessment methods that are applicable; addresses both process and product and includes student and peer evaluation.

This author finds these ten characteristics a very useful guide for broad programme development particularly since they include pedagogy. Roberts¹³¹ urges that ‘planning is probably the most important and most neglected part of any library services program.’

2.1.7.2. Programme design

The ACRL has also produced a useful document for the actual development of IL programmes.¹³²

The document contains five recommendations for programme design. These are:

- *statement of purpose* – which should acknowledge institutional goals; learner variables and life long learning
- *identification of content of instruction* – which involves establishing learning outcomes based on standards and objectives
- *identification of modes of instruction* – which involves adopting a variety of teaching methods that employ active learning techniques, the development of critical thinking skills and draws on expertise from a variety of personnel
- *programme structures* – this should involve clearly articulated relationships between programme components as well as the relationship of the programme to other courses and possibilities for integration
- *evaluation and assessment* - multiple appropriate methods that are ongoing and the results of which inform the continual development of the programme. There needs to be an evaluation plan for any programme.

As regards assessment techniques Rockman¹³³ has emphasised that quantitative techniques such as pre- and post-tests should be used alongside other means that

¹³¹ AF Roberts. Writing general and performance objectives for curricula development In: Clark, AS and Jones, AF. (eds). *Teaching librarians to teach: on the job training for bibliographic instruction*. (1986) Ch 5, 46. B Penney considers the fundamental planning aspect library instruction: B Penney. Planning library instruction. In: Cowley, J. *Libraries in higher education*. (1975) 137-149.

¹³² ACRL. *Guidelines for Instructional Programs in Academic Libraries* www.ala.org. Accessed: 14.12.2004.

¹³³ IF Rockman. “Strengthening connections between information literacy, general education and assessment efforts.” (2002) 51(2) *Library Trends* 188.

demonstrate actual mastery of IL competencies such as portfolios and performance based assignments along with embedded assessment approaches. The focus on quantitative assessment is an unfortunate offshoot of standards and as will be indicated in the next section on standards, there is a danger that the constructivist approach, central to IL may well get lost in the quest for measurable performance indicators. Arguably, portfolios can reflect qualitative progress in learning and qualitative assessment is important along side quantitative methods in order to gain a fuller picture of student learning over time.

Programme design should also take cognisance of human resource needs; support in the form of institutional facilities, equipment, services; financial support and continuing education for staff involved in information literacy instruction.

Instructional design will be dealt with in section 2.3.7.6. of this chapter.

2.1.7.3. Standards and models

The international interest in IL has resulted in the development of standards and models by several library bodies. Underlying programme design are standards and objectives as these form a framework for (arguably quantitative rather than qualitative) assessment. Various universities and professional bodies around the world have developed standards for IL programmes as a search of the printed literature and Internet reveals. Several authors have succinctly overviewed these developments as regards standards and models.¹³⁴ Most institutions openly share their information. The Association of College and Research Libraries (ACRL) has clearly defined standards and objectives for IL programmes for American universities. In 2000, the ACRL approved a final version of its information literacy competency standards for higher education and in 2001, objectives to accompany such standards. These were published as the following documents: *Information*

¹³⁴ B Johnston and S Webber. "Information literacy in higher education: a review and case study." (2003) 28 (3) *Studies in Higher Education* 336-342; C Bruce and P Candy. *Information literacy around the world* (2000); S Andretta. *Information literacy: a practitioner's guide.* (2005) 20-53.

In the opening paragraphs of the Standards document, the ACRL recognised that the central mission of a higher education institution is to develop life long learners who are enabled to learn how to learn and provided with competencies that are needed to become productive and informed citizens. IL needs to be incorporated across curricula to achieve this. Gaining IL skills is deemed necessary to enable students to become independent learners, sharpen critical thinking skills and develop vital communication skills in order to be able to actively participate in problem based learning. The document presumed problem based, student centered learning with constant opportunities for reinforcement of learning and application of research methods in the learning environment. The competency standards are intended to provide a framework for the assessment of the student and should enable the student to take responsibility for learning and the steps involved in any information-seeking situation. The document indicated that in order for an institution to implement the standards effectively, it needs to review its mission and goals for education so as to decide how best information literacy can further its mission.

The document listed five standards and twenty-two performance indicators as well as a variety of outcomes for assessing the progress of students. The outcomes should enable teachers to develop assessment methods for particular disciplines. Different levels of thinking skills are required for different outcomes, which necessitates different methods of assessment. The ACRL suggested that ‘assessment methods appropriate to the thinking skills associated with each outcome be identified as an integral part of the institution’s implementation plan.’¹³⁶

The five standards are:

1. *The information literate student determines the nature and extent of the information needed.*

¹³⁵ ACRL. *Information Literacy Competency Standards for Higher Education and Objectives for Information Literacy Instruction: a Model Statement for Academic Libraries.* (2000). http://www.ala.org/ACRLPrinterTemplate.cfm?Section=acrstandards&Template=/C_. Accessed: 14.12.2004.

¹³⁶ ACRL. *Information literacy competency standards for higher education.* (2000) 4. http://www.ala.org/ACRLPrinterTemplate.cfm?Section=acrstandards&Template=/C_. Accessed: 14.12.2004.

This standard encompasses being able to define and articulate the need for information via steps such as topic analysis; identifying a variety of possible sources; consideration of the costs and benefits of acquiring information and evaluation of the nature and extent of information needed.

- 2. The information literate student accesses needed information effectively and efficiently*

This standard encompasses being able to select appropriate investigative methods, construction of appropriate search strategies; retrieval of information; selection, extraction, organisation and recording of relevant information.

- 3. The information literate student evaluates information and its sources critically and incorporates selected information into his or her own knowledge bases and value system*

This standard encompasses identifying bias, authority, timeliness, argument, accuracy and validity of information; synthesising the main ideas from text; 'uses consciously selected criteria' to determine the appropriateness of the information; investigating differing viewpoints and deciding on why particular ones may be adopted; review of the process.

- 4. The information literate student, individually, or as a member of a group, uses information effectively to accomplish a particular purpose.*

This standard encompasses being able to apply information to a particular outcome or purpose; reflects on the process, successes and failures and chooses the most effective form of communication of the outcome.

- 5. The information literate student understands many of the economic, legal and social issues surrounding the use of information and access and uses information ethically and legally.*

This standard encompasses the issues of copyright, right to privacy, censorship and freedom of information; regulations related to electronic access, plagiarism; the necessity of acknowledging the work of others.

The standards are challenging in terms of the breadth of information a student needs to acquire as well as the cognitive abilities associated with the various skills. The standards acknowledge the context specific nature of information needs and how these contexts must be accommodated, but also the broader base of generic skills such as being able to define and refine a topic and undertake particular steps in the process of finding and identifying information and sources. Arp and Woodard¹³⁷ have affirmed the highly context specific nature of being information literate and librarians should be careful not to force their own contexts on learners. In fitting with the concept of IL the standards emphasise the critical use of information and evaluation of sources.

Some have viewed¹³⁸ the standards as having been developed from a behaviourist perspective due to the generally technical nature of performance indicators when it is considered that IL should reflect a constructivist approach. Johnston and Webber¹³⁹ claimed that the attention to standards, models and lists of skills has not been matched by attention to curricula for IL. They are also critical of the ACRL standards as reflecting lists of skills rather than a holistic approach to IL. Another criticism has been the variant nature of outcomes that reflect levels of learning rather than skills and knowledge.¹⁴⁰

The challenge presented by the standards is the 'how' of implementing them in terms of time frames, teaching and assessment methods and a student-centered approach. The creativity needed to meet these challenges is left to librarians who teach IL and the measurability of the effectiveness of IL programmes is a source of

¹³⁷ L Arp and BS Woodard. "Recent trends in information literacy and instruction." (2002) 42(2) *Reference and user Services Quarterly* 2.

¹³⁸ L Arp and BS Woodard. "Recent trends in information literacy and instruction." (2002) 42(2) *Reference & User Services Quarterly* 2; R Moore. *Library educational services for the next millennium*. (1999). <http://128.226.37.29/collab/cover1.htm>. Accessed: 18.10.2004.

¹³⁹ B Johnston and S Webber. "Information literacy in higher education: a review and case study." (2003) 28(3) *Studies in Higher Education* 337.

¹⁴⁰ S Webber and B Johnston. "Conceptions of information literacy: new perspectives and implications." (2000) 26(6) *Journal of Information Science* 394.

concern. Cain¹⁴¹ has been critical of the standards as an assessment tool. She claimed that ‘assessment tools assume that there is discernible evidence or proof of what is being measured.’ Without a concrete understanding of what is meant by information and with thought processes and the like being difficult to measure exactly, applying standards may well result in the measurement of existing knowledge rather than development of knowledge.

Exactly what constitutes the ‘understanding’ that is the desired outcome of learning for all teachers and reflected in the standards, is an issue. For the student often ‘understanding becomes whatever they see will meet assessment requirements.’¹⁴² Real understanding is *performative*, (Bigg’s italics)¹⁴³ that is, being able to put into practice skills and knowledge and reflect on that practice, learn from feedback and attempt to improve. The vocabulary used in the standards is left largely undefined creating problems in terms of the performance indicators. Understanding is something that develops gradually and the standards do not really reflect a gradation of learning complexity and may well reflect technical performance rather than real learning. Focusing on real understanding in a programme is a reflection of the constructivist rather than behaviourist approach. This is dealt with further in section 2.3.7.4.

The Council of Australian University Librarians (CAUL) produced IL standards for higher education in 2001.¹⁴⁴ They produced a list of seven, two more than the American version. The Australians used the ACRL standards as a guideline and were influenced by Bruce’s model of IL (see below). Their standards presuppose differing levels of thinking skills and appear less mechanistic than the ACRL standards. The standards are as follows:

- The information literate person recognises the need for information and determines the nature and extent of the information needed.
- The information literate person accesses needed information effectively and efficiently

¹⁴¹ A Cain. “Archimedes, reading, and the sustenance of academic research culture in library instruction.” (2002) 28(3) *Journal of Academic Librarianship* 119.

¹⁴² J Biggs. *Teaching for quality at university* (1999) 35.

¹⁴³ J Biggs. *Teaching for quality at university* (1999) 35.

¹⁴⁴ CAUL. *Information literacy standards*. Canberra: CAUL, (2001).
http://ilp.anu.edu.ac/Infolit_standards_2001.htm. Accessed: 14.12.2004.

- The information literate person evaluates information and its sources critically and incorporates selected information into their knowledge base and value system
- The information person classifies, stores, manipulates and redrafts information collected or generated
- The information literate person expands, reframes or creates new knowledge by integrating prior knowledge and new understandings individually or as a member of a group
- The information literate person understands cultural, economic, legal, and social issues surrounding the use of information and accesses and uses information ethically, legally and respectfully
- The information literate person recognises that lifelong learning and participative citizenship requires information literacy.

Bruce¹⁴⁵ developed a model, the relational model, which considered the interaction between information seeker and the information environment, arguing that this interrelationship is to be viewed as a set of experiences, the way people experience phenomena rather than a series of skills. Her model reflects the individual's conceptualisation of the information milieu not just activities. She refers to them as categories of experiences and there are seven in total. The experiences she identifies are:

- *IT Conception* – this first experience is indicative of technology being used to make information accessible and allows the user to stay informed and enhances access
- *Information sources concept* – this second experience indicates the finding of information located in sources. Information literacy is the experience of knowledge of sources and ability to access information independently. The emphasis is on the knowledge of sources making information retrievable
- *Information process conception* – in this experience the focus is on the processes or strategies used to deal with a new situation. The concern here

¹⁴⁵ C Bruce. "The relational approach: a new model for information literacy." (1997) 3 *New Review of Information and Library Research* 1-22; C Bruce. *Seven faces of information literacy in higher education* (1997); <http://sky.fit.qut.edu.au/InfoSys/bruce/inflit/faces/faces1.htm>. Accessed: 12.04.2004.

being the way in which information is to be used. The role of IT in this experience is minimal

- *Information control conception* – in this experience the focus is on the means of storing or controlling information in order to be able to use it at a particular point in time.
- *Knowledge construction conception* – in this experience knowledge is nurtured and added to in a new area of study and critical thinking and analysis and evaluation of information alongside known knowledge is modified
- *Knowledge extension conception* – in this experience there is capacity for intuition and creative insight as the user manipulates information creating new insights. The focus is on how these insights are made and how information is used
- *Wisdom conception* – wise use of information for the betterment of others in the context of a personal value system of beliefs and attitudes which are adapted and moulded as higher order thinking is undertaken about knowledge gained.

The SCONUL model¹⁴⁶ developed out of a concern with IL in higher education in the United Kingdom.¹⁴⁷ It usefully conveys the core activities associated with becoming information literate, integrating IT and information skills. It reflects the generic activities and skills. The ‘verbs’ reflect an active learning, constructivist approach and cognitive as well as practical activities.

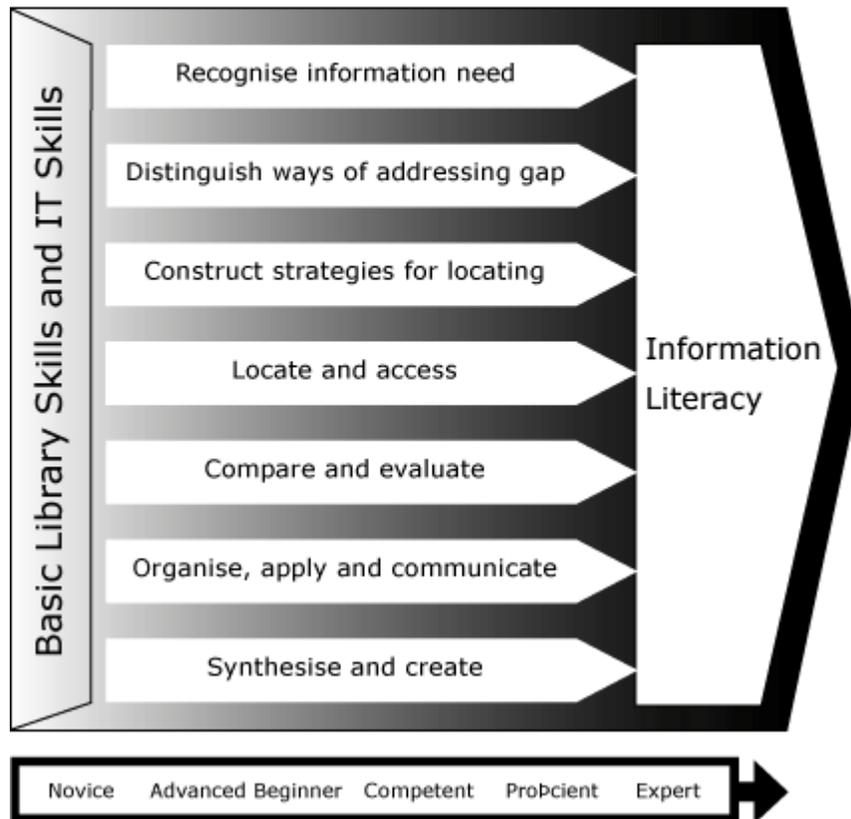
¹⁴⁶ SCONUL. *Seven pillars of Information literacy*. (199-?)
http://www.sconul.ac.uk/groups/information_literacy/sp/sp/splanbw.gif. Accessed: 14.12.2004; S Webber. *The seven headline skills expanded*. (1999).
www.sconul.ac.uk/groups/information_literacy/headline_skills.html. Accessed: 14.12.2004.

¹⁴⁷ Hilary Johnston provides a useful overview of the development of SCONUL’s activities: H Johnson. The SCONUL Task Force on Information Skills. In: Martin, A and Rader, HB. *Information and IT literacy: enabling learning in the 21st century*. (2003) Ch 3. as does Andretta: S Andretta. *Information literacy: a practitioners guide*. (2005) 44-49.

Figure one: SCONUL model of information literacy

SCONUL Seven Pillars Model for Information Literacy

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Source: SCONUL. *Seven pillars of information literacy*. (199-?)
www.sconul.ac.uk/groups/information_literacy/sp/sp/splanbw.gif. Accessed: 14.12.2004.

2.1.7.4. Objectives

Whilst competency standards reflect the broader institutional goals or performance outcomes, objectives provide 'discrete measurable results'¹⁴⁸ Objectives are considered to be those constructive activities that will accomplish the goal and help achieve the outcomes. Objectives can be developed at the individual lesson stage or for a course as a whole. The educational objectives are similar for different levels of programmes.¹⁴⁹ For ACRL, evaluation is implicit in nearly all objectives.

Objectives for four out of five standards have been articulated. The objectives are

¹⁴⁸ ACRL. *Objectives for Information Literacy Instruction: a Model Statement for Academic Librarians*. (2001).
1. <http://www.ala.org/ACRL.Template.cfm?Section=acrstandards&Template=/C>. Accessed: 14.12.2004.

¹⁴⁹ T Smalley. *Information literacy assessment: distinguishing different levels of understanding*. (199-?)
www.cabrillo.edu/~tsmalley/InfoLitAssessment.htm. Accessed :14.12.2004.

numerous and very in-depth and reflect a very multidisciplinary approach to information. The objectives are strong on aspects of topic analysis but weak in terms of the vocabulary of specifics. For example there are objectives that reflect determining the relevance of information; being able to analyse and interpret information collected. The verbs used do not really reveal what is meant by these objectives. How exactly does one determine relevance? These types of objectives reveal a weakness in that they require other skills to be achieved. For example, to determine the relevance of information, the student will need to be able to read specific kinds of texts; yet the competencies do not address what and how such skills are to be included in an IL program. The various documents do however stress the need for collaboration with academic staff and integration into other courses where these matters can be addressed. In the context of a particular course or discipline, one wonders how attainable the objectives are.

No objectives have been drawn up for competency four: *The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.* The rationale for this is that performance indicators and outcomes are best dealt with by course instructors rather than librarians. This seems to fly in the face of the ACRL's *Characteristics of Programs of Information Literacy that Illustrate Best Practices: a Guideline*¹⁵⁰ that emphasises collaboration and integration with programmes and departments in all ten categories of characteristics. The 'Best practices' document is one of few that specify information literacy pedagogy. It summarises the focus of the IL paradigm that is not apparent in the bibliographic or even problem solving approaches:

'Pedagogy for an information literacy program:

- supports diverse approaches to teaching
- incorporates appropriate information technology and other media resources
- includes active and collaborative activities
- encompasses critical thinking and reflection
- responds to multiple learning styles

¹⁵⁰ ACRL. *Characteristics of programs of information literacy that illustrate best practices: a guideline.* (2003) 3-4; <http://www.ala.org/ACRL/Printer.cfm?Section=acrlstandards&Template=/C>. Accessed: 14.12.2004.

- supports student-centered learning
- builds on students' existing knowledge
- links information literacy to ongoing coursework and real-life experiences appropriate to program and course level
- assessment and evaluation of information literacy includes program performance and student outcomes
- establishes the process of ongoing planning/improvement of the program;
- measures directly progress toward meeting the goals and objectives of the program
- integrates with course and curriculum assessment as well as institutional evaluations and regional/professional accreditation initiatives
- assumes multiple methods and purposes for assessment/evaluation
 - formative and summative
 - short term and longitudinal
- acknowledges differences in learning and teaching styles by using a variety of appropriate outcome measures, such as portfolio assessment, oral defense, quizzes, essays, direct observation, anecdotal, peer and self review, and experience
- focuses on student performance, knowledge acquisition, and attitude appraisal
- assesses both process and product
- includes student, peer, and self-evaluation
- includes periodic review of assessment/evaluation methods.¹⁵¹

It is here that the move towards acknowledgement of the role of theory and practice of teaching and learning and teaching practices such as active learning in library instruction are illustrated so clearly. In particular, these sections indicate the need to take cognisance of facets of student behaviour such as learning styles, thinking and prior learning in order to explore a student-centered approach. Librarians have long struggled with assessment and it has been suggested that effectiveness of IL programmes cannot be measured.¹⁵² The focus on assessment indicates the importance of feedback not only for the learner but to inform teaching practice as

¹⁵¹ ACRL. *Characteristics of programs of information literacy that illustrate best practices: a guideline*. (2003) 3-4; <http://www.ala.org/ACRL/PrinterFriendly.cfm?Section=acrlstandards&Template=/C>. Accessed: 16.12.2004.

¹⁵² L McCrank. "Academic programs for information literacy: theory and structure." (1991) 116(8) *Library Journal* 486; J Kaplowitz and J Contini. "Computer assisted instruction: is it an option for bibliographic instruction in large undergraduate survey classes?" (1998) 59(1) *College and Research Libraries* 19-27; R Catts. Some issues in assessing information literacy. In: Bruce, C and Candy, P. *Information literacy around the world* (2000) 271-283.

well. Learning styles, assessment and thinking skills will be dealt with later in this literature review in the section on teaching and learning (2.3.).

The experience to date with the Legal Research Writing and Reasoning (LRWR) module at the University of KwaZulu-Natal Pietermaritzburg campus has shown that no standards exist for this module. Whilst there are learning outcomes for the module, there are no clear performance indicators or objectives; the hierarchical framework is missing and there is no clear instructional design. All of this needs to be addressed. The ACRL standards provide a useful starting point for the development of standards in the legal IL context. To date the active learning approach which is more inclusive of student participation is underdeveloped and factors such as learning styles and assessment in terms of objectives and standards have not been properly thought through. Collaboration with other mainstream modules in the LLB degree and the LRWR module is marginal and needs to be attended to. The author was unable to find any national standards specific to legal research instruction although various institutions have developed their own standards for legal research type modules, for example Harvard University Law School. At this stage, in South Africa, there is no published evidence of standards for IL in general, or for legal research in particular.

In terms of the concept of IL, it is argued that at second year undergraduate level, even in a module of considerable size such as LRWR, the process of enabling students to become information literate is initiated but not completed. IL is critical in the South African context because of the distorted and inequitable provision and access to information in the past as has been indicated above.

2.1.8. INFORMATION LITERACY PROGRAMMES

Suffice it to say that much of the IL literature reflects a wide variety of case studies in particular, of IL programmes reflecting a range of content, approaches and activities, teaching and learning methods, for different levels of study of learners and across the spectrum of academic disciplines. Many case studies reflect stand-alone programmes whilst others reflect collaborative efforts. There is still much debate and research concerning stand-alone versus integrated IL activities as well as the need for greater collaboration with academic disciplines. This debate also

encompasses the value or lack thereof, of generic programmes and those that are subject or context specific.¹⁵³

2.1.9. SUMMARY

Library instruction has evolved along a continuum from knowledge of, and use of sources of information *in situ*, the bibliographic method; to IL which is a more conceptual experiential way of learning, an amalgam of skills, knowledge, attributes and experiences. IL incorporates information and knowledge, source knowledge, problem solving skills, critical thinking, reflecting and doing and ways of learning, and application. It claims a cognitive approach to learning and teaching that takes cognisance of learning styles (see 2.3.5.), assessment and the need for a range of teaching methods. IL presupposes a constructivist and active learning approach to the teaching and learning of information literacy. There is still debate concerning how IL should be defined and described; whether it can be taught as a generic set of skills and knowledge or needs to be subject specific.

A useful body of literature about IL exists and is evolving in the library literature where definitions, application, standards and teaching methods are examined. There has been much debate about how IL should be defined, how it should be measured and how best it can be taught. For librarians, the main concern is how IL programmes can best be designed and implemented. IL is seen as the cornerstone of lifelong learning. Research is largely concerned with the 'how' of IL programmes, pedagogy, the implications of technology, collaboration, integration and information seeking behaviour.

¹⁵³ H Johnson. The SCONUL Task Force on Information Skills. In: Martin, A and Rader, HB. *Information and IT literacy: enabling learning in the 21st century*. (2003) 49-51; B Johnston and S Webber. "Information literacy in higher education: a review and case study." (2003) 28(3) *Studies in Higher Education* 340-350; C Dillon ...et al. Information literacy at the Open University: a developmental approach. In: Martin, A and Rader, HB. *Information and IT literacy: enabling learning in the 21st century*. (2003) Ch 5; J Peters, H Hathaway and D Bragan-Turner. Does discipline matter? In: Martin, A and Rader, HB. *Information and IT literacy: enabling learning in the 21st century*. (2003) Ch 6; D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002); L Martin and S Williamson. Integrating information literacy into higher education. In: Martin, A and Rader, HB. *Information and IT literacy: enabling learning in the 21st century*. (2003) Ch 12; L Arp and BS Woodard. Recent trends in information literacy and instruction". (2002) 42(2) *Reference & User Services Quarterly* 129 – 130; C Bruce. *Information literacy as a catalyst for educational change: a background paper*. (2002) 12-14.

Standards and associated performance outcomes have been formulated by a number of professional bodies. This is an attempt to make provision for, and quantify measurement of learning in terms of outcomes and provide a framework for planning IL programmes. These standards have been criticized for being inherently behaviourist and technical and much of the vocabulary used ill defined, but they serve as a useful springboard for programme development and assessment and reflect a strong pedagogy.

The current challenges for IL in higher education institutions in South Africa are born out of an Apartheid legacy of separate and unequal access in all spheres of life resulting in a citizenry largely malnourished as regards a quality school education that leaves many un- and under-prepared for the rigours of university study. The national impetus for IL is found in the SAQA national qualifications requirements but as yet this has not translated into nation-wide comprehensive institutionalised IL programmes. Neither is IL embedded at module level. Librarians face similar challenges to their overseas counterparts in terms of implementing IL alongside the particularities of the South African situation.

2.2. LEGAL RESEARCH SKILLS

This section provides an overview of the characteristics of legal research and the debate around whether legal research is distinctive from other kinds of research. The bibliographic and process approaches to the teaching of legal research have dominated the literature but with increasing cognisance being taken of the appropriateness of an IL paradigm for legal research learning and teaching. The multifaceted problem-solving nature of law and the changing information and legal education environments have impacted on legal research. Despite a growing emphasis on the inclusion of 'lawyering' skills within the formal law curriculum, debate continues as to whether these should be taught in law school, what these skills are and by whom should they be taught. Legal education in South Africa has been changing dramatically since 1994 with a range of concomitant problems. National requirements emphasise a range of skills outside of substantive modules.

2.2.1. INTRODUCTION

In terms of legal research skills and knowledge, debates have evolved around what constitutes legal research skills; who should teach them; what are the most appropriate methods of teaching these skills and the changing nature of legal research. As with IL, there does not appear to be a succinct all encompassing definition. The literature also reflects a perceived difference between research undertaken by the practitioner and that undertaken by the academic. There is also a tension concerning a university education successfully meeting the needs of professional practice and whether in fact professional education at university will ever fully reconcile with the needs of practice. In law librarianship, the same debates concerning the best methods of teaching IL, content and approach are apparent as will be indicated below.

2.2.2. WHAT CONSTITUTES LEGAL RESEARCH?

There does not appear to be a concrete definition of legal research but obviously on the surface it refers to that research undertaken by legal scholars and practitioners with respect to a situation of a legal nature. One could argue that 'non legal' people search the legal literature rather than undertake legal research. Lynch¹⁵⁴ claimed that legal research is not merely a search for legal information but first and foremost a matter of understanding. 'Understanding is not achieved simply by locating and reading cases and statutes'¹⁵⁵ although some legal problems are solved by merely locating the right document or source:

'The researcher must understand the authorities well enough to form theories and apply them to a set of facts for which they do not present an immediate obvious answer'.¹⁵⁶

Often the discovery of and understanding of legal sources can clarify and broaden identification of issues in a problem. Lynch stresses the primacy of thinking in the legal research process. Perhaps it is largely the application of the principle of precedent¹⁵⁷ in following and applying the law that necessitates specific attention to

¹⁵⁴ MJ Lynch. "An impossible task but everyone has to do it – teaching legal research in law schools." (1997) 89 *Law Library Journal* 415-451.

¹⁵⁵ MJ Lynch. "An impossible task but everyone has to do it – teaching legal research in law schools." (1997) 89 *Law Library Journal* 417.

¹⁵⁶ MJ Lynch. "An impossible task but everyone has to do it – teaching legal research in law schools." (1997) 89 *Law Library Journal* 418.

¹⁵⁷ A binding precedent 'is a principle of law that must be followed wherever a judge is deciding a case if there

the distinction between primary and secondary sources; consideration of jurisdiction; the need for currency and the sheer bulk of legal publications, that gives legal research a distinctive flavour.¹⁵⁸

Clinch¹⁵⁹ and Twining¹⁶⁰ amongst others have indicated that legal research does not include skills that are distinctively 'legal' and the generic skills of legal research are those for any other discipline namely, problem analysis, identification and location of sources and communicating that information appropriately according to specified needs. Danner,¹⁶¹ quoting Morris Cohen from 1969 provided a useful description of how legal research differs from research in other fields:

legal research is normally undertaken for professional rather than scholarly purposes. Lawyers conduct research to find answers to problems...the conduct of legal research is driven by the nature of the primary source materials and by their sheer bulk. Legal research requires complex finding tools, as well as the means to evaluate the currentness and continued validity of the sources. ..principles of jurisprudence – the rules of precedent, jurisdiction, etc. – determine how materials are used, establish their relative importance and structure of relationships among them....The nature of legal bibliography is determined in many ways by the nature of the law itself, and, in turn, the nature of legal research is determined, in part at least, by the bibliography on which it works.

The sources of information are in many instances distinct. Primary sources in particular are critical to the interpretation and application of the law.

Lynch¹⁶² provided a useful overview of the difference between scholarly legal research and that of the practitioner. Client-centred research focuses on discovery and application of legal authority to a precise problem, which has often already occurred, and involves serving the client's interests as far as possible. Scholarly research is often comprehensive with more general conclusions than specific.

is a principle of law from a previous case that applies to the facts of the present case...if the facts in the case are analogous, even if the judges do not agree with the principle in it.' A persuasive precedent is one that may influence the court but need not necessarily be followed – where 'there is no obvious binding precedent to follow.': R Huxley-Binns, L Riley and C Turner. *Unlocking legal learning*. (2005) 132; C Russo. "Legal research: an emerging paradigm for inquiry." (2005) 23(1) *Perspectives in Education* 42.

¹⁵⁸ RA Danner. "Contemporary and future directions in American legal research: responding to the threat of the available." (2003) *International Journal of Legal Information* 5.

¹⁵⁹ P Clinch *Teaching legal research*.. (1999) 1. www.ukcle.ac.uk. Accessed: 8.05.2004.

¹⁶⁰ W Twining. "Taking skills seriously." (1986) 4(1) *Journal of Professional. Legal Education* 2.

¹⁶¹ RA Danner. "Contemporary and future directions in American legal research: responding to the threat of the available." (2003) *International Journal of Legal Information* 1-28.

¹⁶² MJ Lynch. "An impossible task but everyone has to do it: teaching legal research in law schools." (1997) 89 *Law Library Journal* 418-419.

Schon¹⁶³ discussed the tensions between professional training and professional practice and the impact this has on problem-solving and learning to research a discipline. He claimed that universities use a 'technical rationality' pedagogy which does not reflect all real world situations:

'technical rationality holds that practitioners are instrumental problem solvers who select technical means best suited to particular purposes. Rigorous professional practitioners solve well-formed problems by applying theory and technique derived from systematic, professional scientific knowledge.'¹⁶⁴

This technical rationality approach assumes a hierarchy of knowledge for solving problems: firstly find the basic relevant science, then the relevant applied science and finally a practicum in which students apply this knowledge to everyday problems.

In the real world, many problems are not like this, they may be unique, reflect conflicting values or uncertainty about how to deal with them. There is neither an existing answer nor a systematic way of reaching resolution. These situations are not just about the application of theory and techniques, but a certain degree of artistry is required. Artistry Schon defined as 'an exercise of intelligence, a kind of knowing ...rigorous in its own terms.' When the systematic process is not immediately applicable, 'these indeterminate zones of practice, uncertainty, uniqueness and value conflict – escape the canons of technical rationality.'¹⁶⁵ As problem situations are usually framed in different ways according to disciplinary background, prior knowledge, socio- economic factors and others, thus the practitioner thinks in terms of his discipline, that is, thinking like a lawyer so as to bring relevant knowledge to bear on the situation. Whilst necessary, Schon claimed that this reflects 'rule-governed inquiry'¹⁶⁶ rather than necessary creative thinking. Thus students need to be coached to think for themselves and 'see on his own behalf',¹⁶⁷ and learn this artistry, the basic science will not suffice. In order to learn this artistry which will only truly develop in practice, the student needs to be able to 'do' and reflect which Schon referred to as 'knowing-in-action (the demonstration of

¹⁶³ DA Schon. *Educating the reflective practitioner*. (1987) 3-22.

¹⁶⁴ DA Schon. *Educating the reflective practitioner*. (1987) 4.

¹⁶⁵ DA Schon. *Educating the reflective practitioner*. (1987) 13.

¹⁶⁶ DA Schon. *Educating the reflective practitioner*. (1987) 34

¹⁶⁷ DA Schon. *Educating the reflective practitioner*. (1987) 17

knowledge) – which is always a construction, and reflection-in-action. Reflection-in-action is critically thinking about what has been done in order to develop or restructure strategies of understanding, doing and framing problems.¹⁶⁸ Similarly, Menkel-Meadow discussed the need for developing creativity in problem-solving as there is more than one way of thinking like a lawyer and: ‘a work is creative if it stands out at first in terms of its novelty but ultimately comes to be accepted within a domain.’¹⁶⁹

Certain authors have supported the arguments proffered by Schon and have criticized the case-based approach to studying and teaching law as being too restrictive.¹⁷⁰ The case method they claim is rule based and reflects a technical rationality which does not support the needed creativity for problem-solving in practice. The case method teaches only one way of thinking and there are many ways of ‘thinking like a lawyer.’ Dauphinais¹⁷¹ has argued that the case method supports logical mathematical and linguistic intelligences when the study and practice of law and problem-solving require application of multiple intelligences.

Legal research is largely context specific and inextricably bound up with problem-solving. The process of legal research tends to be seen as fitting into this particular pattern of studying law as evidenced in this case method. Whilst systematic search processes are pertinent, the teaching of legal research requires the teacher to coach, the student to be actively involved and attention be given to the thinking involved in formulating problems and actively seeking solutions outside of a more formulaic approach as characterises legal education according to Schon.

¹⁶⁸ DA Schon. *Educating the reflective practitioner*. (1987) 22-32.

¹⁶⁹ C Menkel-Meadow. “Aha? is creativity possible in legal problem solving and teachable in legal education?” (2001) 6 *Harvard Negotiation Law Review* 102.

¹⁷⁰ RK Neumann. “Donald Schon, the reflective practitioner, and the comparative failures of legal education.” (2000) 6 *Clinical Law Review* 401-423. Online. Westlaw. Accessed: 6.7.2005; KA Dauphinais. “Valuing and nurturing multiple intelligences in legal education: a paradigm shift.” (2005) 11 *Washington and Lee Race and Ethnic Ancestry Law Journal* 3, 12. Online. Westlaw. Accessed: 6.7.2005; SH Krieger. “Domain knowledge and the teaching of creative problem solving.” (2004) 11 *Clinical Law Review* 143. Online. Westlaw. Accessed: 6.7.2005; J Kerper. “Creative problem solving vs the case method: a marvelous adventure in which Winnie-the-Pooh meets Mrs. Palsgraf.” (1998) 34 *California Western Law Review* 351-370. Online. Westlaw. Accessed: 6.7.2005.

¹⁷¹ KA Dauphinais. “Valuing and nurturing multiple intelligences in legal education: a paradigm shift.” (2005) 11 *Washington and Lee Race and Ethnic Ancestry Law Journal* 1-18. Online. Westlaw. Accessed: 6.7.2005. This is supported by others: C Menkel-Meadow. “Aha? is creativity possible in legal problem solving and teachable in legal education?” (2001) 6 *Harvard Negotiation Law Review* 97-115. Online. Westlaw. Accessed: 6.7.2005; HE Gardner. *Frames of mind: the theory of multiple intelligences*. (1983)

Danner¹⁷² usefully noted that for several centuries the legal research environment was relatively stable. The emergence of electronic information has changed this, particularly formats and the way in which information is structured. Much information is now in the public domain because of the Internet, and often repackaged. For example, a key constitutional law case may appear in a traditional source from a vendor in a particular format; via a particular official organizational website such as the South African Constitutional Court, or as a synopsis on a newspaper site or private organizational site that is considering the case in the light of a particular issue. The electronic medium more readily accommodates repackaging of material and information. The practice of legal research increasingly therefore, requires not only knowing about the availability of electronic sources and vendors, but how these applications work. Legal research is thus now also about technical competencies and the thinking processes concerning the use of technology in information retrieval.¹⁷³ Using these professional on-line resources however is not the same as using a search engine. Whilst the search process once quite systematically began with a search of the secondary sources in order to overview the law and find leads to the primary literature, the advent of electronic formats which provide keyword and in-text searching, means that the primary sources are increasingly accessible as a first port of call.

Two questions that arise as regards legal research instead of simply research, are what is meant by 'legal' and what is legal information. Schauer and Wise¹⁷⁴ dealt with the matter of 'legal' versus 'non legal'. For them legal materials include statutes, law reports, regulations, legal encyclopedias and dictionaries, standard books and journal articles on legal subjects, government (official) documents and legislative history. 'Non-legal' would be any publication not aimed at lawyers or judges. It could be argued that not all government documents are aimed at lawyers or judges but as primary sources they are authoritative. They acknowledged that there are borderline materials that could fall into either. What are not specified are

¹⁷² RA Danner. "Contemporary and future directions in American legal research: responding to the threat of the available." (2003) *International Journal of Legal Information* 3-6.

¹⁷³ RA Danner. "Contemporary and future directions in American legal research: responding to the threat of the available." (2003) *International Journal of Legal Information* 6-12.

¹⁷⁴ F Schauer and VJ Wise. "Nonlegal information and the delegalization of law." (2001) 29 *Journal of Legal Studies* 495-515.

materials such as treaties but it could be assumed that these fall under official materials. Berring¹⁷⁵ equated legal information with the sources of law.

2.2.3. HISTORY OF THE DEVELOPMENT OF APPROACHES TO LEGAL RESEARCH

To understand how legal research instruction is moving towards an IL paradigm, it is necessary to understand the evolution of approaches to legal research. Clinch overviewed the history of the development of the formalisation of legal research (in the United Kingdom) and has indicated that legal research has, over time, referred to finding the law as well as a broader meaning of also encompassing the analytical skills that go with finding the law.¹⁷⁶ Traditionally, legal research skills were acquired through the system of articles (apprenticeship). Only as universities assumed responsibility for teaching law did legal research gain a form of its own.

Conventionally, two broad methods of teaching legal research were, and still are being used. The first is the bibliographic method which focuses on what the sources of law are and how to use them. Wren and Wren,¹⁷⁷ in a mammoth article, writing about the history of the evolution of the bibliographic and process methods in the United States, criticised the bibliographic method (Frederick Hicks an American law librarian is credited with developing this formal approach to teaching legal research)¹⁷⁸ as failing to teach legal research and leaving students with the false impression that legal research is about knowing the character of legal materials. In a famous counter attack, Berring and Vanden Heuvel¹⁷⁹ claimed the Wrens had misinterpreted Hicks and that Hicks did in fact see legal research as not just about knowing the sources of law but about being able to see them in context; understanding their use and using materials to solve problems. Bibliographic instruction was an intellectual as well as a practical exercise. The Wrens considered the process oriented approach the better way to go. Their approach, they insisted, reflected the fact that legal research is a process where the focus is on how to use

¹⁷⁵ R Berring. "Legal information and the search for cognitive authority." (2000) 88(6) *California Law Review* 1683-1684.

¹⁷⁶ P Clinch *Teaching legal research*. (1999). 1. www.ukcle.ac.uk. Accessed: 8.5.2004.

¹⁷⁷ CG Wren and JR Wren. "The teaching of legal research." (198) 80 *Law Library Journal* 7-61.

¹⁷⁸ RC Berring and K Vanden Heuvel. "Legal research: should students learn it or wing it?" (1989) 81 *Law Library Journal* 431.

¹⁷⁹ RC Berring and K Vanden Heuvel. "Legal research: should students learn it or wing it?" (1989) 81 *Law Library Journal* 431-449.

legal material to solve problems and what it is that the problem solver is trying to accomplish. Berring and Vanden Heuvel responded that the teaching of legal research as a problem-solving exercise is insufficient.

They saw the issue not so much as the method but rather that insufficient status was given to courses in legal research; insufficient resources and so on, which prevented the implementation of effective programmes. They indicated¹⁸⁰ that a legal research programme requires a combination of both approaches as ‘students cannot learn to perform complicated research tasks without understanding the nature of the tools involved....research can be taught much more effectively if it is approached conceptually.’¹⁸¹

Fitzgerald,¹⁸² in a survey of Canadian law schools found that whilst most law schools indicated they taught a variety of skills alongside how to find the literature, this was not borne out by student experiences or course outlines. Many skills were presupposed to exist or were taught indirectly.

2.2.4. LEGAL RESEARCH SKILLS

Clinch¹⁸³ provided a comprehensive list of legal research skills based on developments in attitudes towards lawyering skills in the United Kingdom. Particular sets of skills were developed for the student where the context was highly client focused and where the context related to a legal problem and not client focused. An integrated set of these skills is necessary as students are taught from both an academic and problem-solving perspective as well as one that considers the client’s interests in the first instance. Clinch analysed various legal bodies in the United Kingdom who provide some overarching purposes for and nature of legal research:

The student should approach legal research in a practical rather than academic manner and be selective, precise and efficient in the identification and utilization of resources.
(General Council of the Bar; quoted by Clinch p3)

¹⁸⁰ RC Berring and K Vanden Heuvel. “Legal research: should students learn it or wing it?” (1989) 81 *Law Library Journal* 442-3.

¹⁸¹ RC Berring and K Vanden Heuvel. “Legal research: should students learn it or wing it?” (1989) 81 *Law Library Journal* 442-3.

¹⁸² MF Fitzgerald. “Whats wrong with legal research and writing? Problems and solutions.” (2004) 88 *Law Library Journal* 247-274.

¹⁸³ P Clinch *Teaching legal research*. (1999) 2-13. www.ukcle.ac.uk. Accessed: 8.5.2004.

The student should understand the need for thorough investigation of factual and legal issues and should understand the need for preparation and the best way to undertake it. (Law Society Council quoted by Clinch p4))

Clinch¹⁸⁴ indicated that in essence the student should be able to:

understand the client's problem; find the relevant legal sources; extract the essential points from the literature; apply the relevant principles to the problem; construct arguments from fact and law to support different sides of a case; assess strengths and weaknesses of a case; communicate this orally and in writing in a way which the client can understand and find practical solutions and exercise a degree of creativity.

Clinch elucidated on three kinds of legal research skills which are:

- a) problem solving
- b) identification, location and use of information sources
- c) effective communication of the information in the required manner

These are the generic skills applicable to any research and search for information.

The transferable skills that need to be able to be applied to any situation are:

- a) construction of logical argument
- b) capacity for abstract manipulation of complex ideas
- c) systematic management of complex information
- d) intelligent, critical reading of texts
- e) use of English language at all times with scrupulous care and integrity
- f) related ability to communicate orally and in writing in a clear, consistent and compelling way
- g) competence in retrieving, assessing, analysing and using legal texts and information, including information technology skills.

As regards the core skills; Clinch quoted the General Council of the Bar and the Law Society Council's desired skills:¹⁸⁵

- analysing the facts of a situation
- identifying issues
- working out the questions to be answered
- identifying and locating relevant sources
- identifying keywords for searching
- distinguishing between relevant and irrelevant sources
- summarising or paraphrasing material and extracting key points
- cross referencing between sources to ensure the answer is complete
- identifying authority

¹⁸⁴ P Clinch *Teaching legal research*. (1999) 2-13. www.ukcle.ac.uk. Accessed: 8.5.2004.

¹⁸⁵ P Clinch *Teaching legal research*. (1999). 3. www.ukcle.ac.uk. Accessed: 8.5.2004.

- ensuring information is current
- applying the law to the facts at hand
- come to a satisfactory answer providing reasons for the answer and showing how the answer was arrived at
- presenting the answer in a concise and clear manner
- citing all sources of information.

2.2.5. LEGAL RESEARCH AND INFORMATION LITERACY

Legal research fundamentally endorses the same generic technical and cognitive skills as other forms of research. As the above discussion of the currently accepted range of skills and knowledge included in legal research indicates, legal research lends itself to formulation within an IL paradigm. As with most information situations legal research is usually highly context specific. Knowing about; identifying and accessing the legal literature is only part of the process. Law is a problem-solving profession. At a basic level the more formulaic approach to the study of legal problems for the law student in terms of analysing the problem and understanding the issues and finding the relevant law is what happens. In order to find the relevant law however, it is necessary to determine what the information need is, develop a search strategy and information found and evaluated, and relevant information extracted to meet the particular purpose.

Because the study of law is predominantly case and precedent based,¹⁸⁶ particular skill is needed in interpreting and applying the information found. Often more than one solution is possible and the practitioner may well have to provide an opinion based on the law. High order cognitive skills are needed as has been indicated by the definitions of information literacy. Legal research is inextricably bound up with writing, reading and critical thinking skills because the product of legal research is often a written document. Margolis and DeJarnatt are adamant that the ‘one-skill-at-a-time’¹⁸⁷ teaching and learning of skills in law school is wholly inappropriate.

Legal research and writing (and reading) need to be integrated because ‘the

¹⁸⁶ RC Berring. “Legal research and legal concepts: where form molds substance.” (1987) 75 *California Law Review* 15-27; M Fox and C Bell. *Learning legal skills*. 3rd ed. (1999); RC Berring. “Legal information and the search for cognitive authority.” (2000) 88(6) *California Law Review* 1673-1708. Charles C Langdell, a professor at Harvard University is credited with introducing the case method as the way of studying law in the mid 1800’s. Kerper is one of many who is critical of the case method: “Creative problem solving vs the case method: a marvelous adventure in which Winnie-the-Pooh meets Mrs. Palsgraf.” (1998) 34 *California Western Law Review* 351-370. Online. Westlaw. Accessed: 6.7.2005.

¹⁸⁷ E Margolis and SL DeJarnatt. “Moving beyond product to process: building a better LRW program.” (2005) 46 *Santa Clara law Review* 98-99. Online. Westlaw. Accessed: 18.9 2005.

discourse of law does not segregate research and writing' and the process of legal analysis requires finding information, analysing, constructing meaning and communicating the application of that meaning.¹⁸⁸ IL and a constructivist approach provide a useful paradigm for the conceptualisation of legal research skills and knowledge and ultimately the manner in which these should be taught and assessed.

As the focus in the study of law is on case law and precedent, a particular approach or method to legal problem-solving has developed over time. This has been called various things but is basically the IRAC or FIRAC method. (The exact origin is unknown but presumed to have developed from the case approach to studying law).¹⁸⁹ This acronym stands for identifying facts; issues; relevant law; applying that law and concluding. This does suggest a particular order or series of steps which in its simplest way, does form the basis of problem-solving. Much published case law is presented in this FIRAC format. This method requires a combination of both the bibliographic and process oriented methods in terms of teaching, but increasingly, these are insufficient as indicated by authors such as Schon above.

In terms of the definition of IL, Lustbader¹⁹⁰ indicated that legal research is learnt progressively and eventually the student must be able to think outside the mould, be creative, active and know how to approach problems from different angles. Whisner¹⁹¹ argued that due to the fact that much research these days needs to take cognisance of materials further afield than the traditional legal sources; students need to be taught to think 'outside the box'. Thinking outside the box is perhaps part of the character of IL – to teach transferable skills and skills of analysis and

¹⁸⁸ E Margolis and SL DeJarnatt. "Moving beyond product to process: building a better LRW program." (2005) 46 *Santa Clara law Review* 97. Online. Westlaw. Accessed: 18.9.2005.

¹⁸⁹ Martin refers to the MIRAT method which is similar to IRAC and FIRAC. MIRAT stands for the material facts, the issues of law, the rules (research and resources as well in terms of resolving a problem), arguments or application and tentative conclusion. F Martin. "Teaching legal problem solving: a problem based learning approach combined with a computerized generic problem." (2003-4) 14 *Legal Education Review* 79. J Kerper. "Creative problem solving vs. the case method: a marvelous adventure in which Winnie-the-Pooh meets Mrs. Palsgraf." (1998) 34 *California Western Law Review* 351-370. Online. Westlaw. Accessed: 6.7.1005 criticised the narrowness of IRAC as a means of teaching and learning creative problem-solving.

¹⁹⁰ P Lustbader. "Construction sites, building types, and bridging gaps: a cognitive theory of the learning progression of law students." (1997) *Willamette Law Review* 317-357. Online: Westlaw. Accessed: 8.12.2005.

¹⁹¹ M Whisner. "Researching outside the box." (2003) 95 *Law Library Journal* 467-473.

critical thinking that enable the information searcher to look holistically at any problem and develop different ways of seeing the world. Pengelley¹⁹² viewed teaching legal research at the current time as needing to focus on the conceptual aspects – understanding ‘the strengths and limitations of the information sources, and to evaluate the sources for authenticity, reliability, authority and bias, even as the tools of access continue to change.’

Lynch¹⁹³ in a critique of the article by Wren and Wren, raised what this author considers to be a fundamental challenge with student legal research instruction to date. Lynch noted that to presume legal research begins with identification of facts and issues before using literature, and then proceeds through a determined search strategy presupposes a thorough knowledge of an area of law. He claims reading the literature with understanding helps refine and even identify issues and the steps that the research process should follow. Lustbader’s article above suggests that a progressive approach to teaching legal research skills should overcome this.

Lumina¹⁹⁴ has argued that the problem-solving method presented to students in law schools is as follows. Students are given a problem, expected to read and assimilate the literature which is already available to them and then present a solution. This method presupposes testing the student’s ability to identify legal rules and principles, read and understand, apply principles and develop reasoning skills. This he argues means that students are not actually learning how to solve problems but rather studying solutions to problems. This may also account for the reason why students do not undertake research. Legal research modules provide the opportunity to coach students to solve problems from different angles.

The five ACRL standards mentioned above (section 2.1.7.3.) are applicable to legal research as they reflect the technical and cognitive skills needed to be information literate. The challenge for teachers of legal research skills is how to impart these skills and learning to ensure real understanding of product and process occur.

¹⁹² N Pengelley. “The coming law school library.” (2001) 29 *International Journal of Legal Information* 625-626.

¹⁹³ MJ Lynch. “An impossible task but everyone has to do it – teaching legal research in law schools.” (1997) 89 *Law Library Journal* 423.

¹⁹⁴ C Lumina. “Students’ perceptions of the problem method in law: implications for teaching practice.” (2005) 16(2) *Stellenbosch LawReview* 349-354.

Thus, as implicit in the general IL literature, cognisance of learning styles and approaches and teaching methods and how to carry out effective IL programmes are as relevant in legal research literacy as other types of IL situations. As Bruce¹⁹⁵ said of IL:

The ability to access, evaluate and use information....this description is based on the view that information literacy is an amalgam of skills, attitudes and knowledge...it is a way of learning, or a conglomerate of ways of experiencing information.

2.2.6. THE CHANGING NATURE OF LEGAL EDUCATION

An understanding of the nature of legal research skills cannot be divorced from an understanding of the broader context of legal education. The history around the responsibility of academic law schools and law firms for ensuring law graduates are prepared for practice is well documented. Bell¹⁹⁶ reviewed research into legal education as largely focusing on the content and purpose of legal education. As will be seen in section 2.3. of this chapter, legal education like education in other settings, has adopted various models. These include the transmission model of knowledge, focus on skills and techniques and a critical thinking model. Content has considered approaches to learning with inclusion of problem-solving, law clinics, reflective practice, and problem-based learning to facilitate the acquisition of legal skills. What skills training should be included in legal education has received much attention.¹⁹⁷

Clinch¹⁹⁸ succinctly affirmed that until recently, legal education and training was divided into two stages. The first stage was the initial or academic stage where the focus was on providing students with a knowledge base in substantive law: thinking like a lawyer as he puts it. The second stage was designed as a more vocational stage where students of law learnt how 'to do things like a lawyer'. In the last 30 years there has been growing acceptance of the need for an integration of these two stages and a broadening of interpretation as to what makes a competent lawyer. Legal research was formerly considered as merely how to use a library.

¹⁹⁵ C Bruce. *Seven faces of information literacy in higher education*. (1997) 261.

<http://sky.fit.qut.edu.au/InfoSys/bruce/inflit/faces/faces1.htm>. Accessed: 12.04.2000.

¹⁹⁶ J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies* (2003) 902-916.

¹⁹⁷ Lysaght, P. Opening remarks In: Lysaght, P. *Erasing lines: integrating the law school curriculum: proceedings from the 2001 ALWD Conference held at University of Minnesota*. (2002) 1-11.

¹⁹⁸ P Clinch. *Teaching legal research*. (1999) 1-3. www.ukcle.ac.uk. Accessed: 8.5.2004.

Much of the debate around these two stages as mutually exclusive or integrated in legal education stems from the problem of determining what the purpose of a legal education was and is. Cooper¹⁹⁹ reiterated this well documented debate surrounding the separation of theory and practice in legal education. Cooper²⁰⁰ noted Karl Llewellyn as being the first law teacher (in a 1944 curriculum designed by the Association of American Law Schools) to address the need for integration of theory and practice, a view that was not widely supported at the time. Birks²⁰¹ in particular is an advocate of the purpose of legal education being to produce good lawyers. Brownsword²⁰² advocated the purpose being to produce good citizens. In an overview of US clinical education, Bergman²⁰³ noted the resistance by many academics to teaching skills, seeing it as the responsibility of the law firm and/or clinical education beyond law school. Despite world wide reforms since the 1970s in particular, the combination of both theory and practice in university law schools is still not a given.²⁰⁴

Bell²⁰⁵ and Bradney²⁰⁶ have reported that the growth of mass higher education has been in large part responsible for pressure on law schools to include 'lawyering' skills in their curriculum. This massification has sharply focused the question about the purpose of a university legal education. The growth in mass higher education and particularly the undergraduate law degree, has meant various things. Such a degree is thus part of a liberal education where the purpose is an education for life not just a narrow vocational focus. Undergraduates need to be equipped with a range of skills and resources to be employable. Where the academic law degree is

¹⁹⁹ BD Cooper. The integration of theory, doctrine, and practice in legal education. In: Lysaght, P, Sloan, AE and Clary, BG. *Erasing lines: integrating the law school curriculum*. (2002) 51-65.

²⁰⁰ BD Cooper. The integration of theory, doctrine, and practice in legal education. In: Lysaght, P, Sloan, AE and Clary, BG. *Erasing lines: integrating the law school curriculum*. (2002) 52.

²⁰¹ P Birks. *What are law schools for?* (1996).

²⁰² R Brownsword. Law schools for lawyers, citizens, and people. In Birks, P. *What are law schools for?* (1996) 42.

²⁰³ P Bergman. "Reflections on US clinical education." (2003) 10(1) *International Journal of the Legal Profession* 109-111.

²⁰⁴ TM Fine. Do best pedagogical practices in legal education include a curriculum that integrates theory, skills and doctrine? In: Lysaght, P. *Erasing lines: integrating the law school curriculum...* (2002) 70-75; N Jackling. "Academic and practical legal education: where next?" (1986) 4(2) *Journal of Professional Legal Education* 5.

²⁰⁵ J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies*. (2003) 902-918.

²⁰⁶ A Bradney. Liberalising legal education. In: Cownie, F. *The law school-global issues, local questions*. (1999) 1-3.

a pre-requisite for entry into the profession, graduates must be competent in the necessary skills for practice. Bell²⁰⁷ also indicated that:

If university education is effectively the gatekeeper to a range of employment opportunities, then it becomes part of an agenda of social inclusion. The social responsibilities of universities are now more likely to be expressed in terms of their duty to accommodate students from less privileged social backgrounds.

Life in general involves an ever-heightened degree of legal activity and thus many activities and professions require the services of persons with legal training outside of the traditional law firm such as consumer advice bureaux and thus the idea of what constitutes a legal education needs to be broadened.²⁰⁸ Callister and others²⁰⁹ have reasoned that the exponential growth in information and technologies, activities of and competition between lawyers has meant that lawyering skills are gaining importance. Where a university legal qualification is a pre-requisite for entry into the profession, students need to then be prepared for practice. Teaching a student to 'think like a lawyer' should not be the only goal and an academic goal, but thinking like a lawyer also means being able to 'do'.²¹⁰ The illustration she provides is that of a doctor. The expectation is that a qualified doctor will be able to 'do' the job, thinking like a doctor is not sufficient.

Blackshield²¹¹ claimed that:

The primary objective of legal education is to habituate students to the phenomenon of legal change. They come to us wanting to know what the law 'is' – we need to teach them that this is the wrong question....the most important thing any student can gain from legal education is the capacityto cope with change...to study law is to study change...understanding the process of law is far more important than understanding the specific rules...

²⁰⁷ J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies*. (2003) 903.

²⁰⁸ J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies* (2003) 904.

²⁰⁹ P Callister . "Beyond training: law librarianship's quest for the pedagogy of legal research education." (2003) 95 (1) *Law Library Journal* 20-22.

²¹⁰ NB Rapoport. Is 'thinking like a lawyer' really what we want to teach? In: Lysaght, P *Erasing lines: integrating the law school curriculum: proceedings from the 2001 ALWD Conference held at University of Minnesota*. (2002) 91-108. It has been argued that there are many ways to think like a lawyer and the question has been asked as to how exactly is a lawyer supposed to think?: C Menkel-Meadow. "Aha? is creativity possible in legal problem solving and teachable in legal education?" (2001) 6 *Harvard Negotiation Law Review* 98. Online. Westlaw. Accessed:6.7.2005 and J Kerper. "Creative problem solving vs the case method: a marvelous adventure in which Winnie-the-Pooh meets Mrs. Palsgraf." (1998) 34 *California Western Law Review* 351-370.

²¹¹ AR Blackshield, quoted by J Goldring. The future of legal education: doubtful assumptions and unfulfilled expectations In: Goldring, J; Charles, S and Simmonds, R. *New foundations in legal education* (1998) 15-26, 17.

If this is indeed the case, students of law need to know how to find the relevant law at a particular point in time for a given situation and apply that law – a process that implies a whole range of needed skills. Bradney ...et al²¹² discussed the study of law as being of two distinctive approaches:

The law in action is that which actually happens in the legal system and is concerned with people's behaviour. The law in books is the system of legal rules which can be deduced from reading cases and statutes.

Each approach requires different questions to be asked, different kinds of answers. One needs to know the sources of law and what they have to say about the law and how to find them. Then one needs to be able to interpret and apply that law. The literature consulted indicates that most law schools use a problem-solving approach for teaching law and presume it to be the way many law subjects should be taught. Keyzer²¹³ argued that:

problem based assessment in the form typically used in law schools is not a sufficiently complex form of instruction to develop all of the skills required in practice. There are many skills required of practitioners which can't be tested with problems.

Simultaneously in various parts of the world, bodies dealing with legal education and law reform commissions have provided clarity about the purpose of legal education at university law schools. In the United Kingdom the Lord Chancellor's Advisory Committee on Legal Education and Conduct²¹⁴ published its first report in 1996. It acknowledged the same changes in the legal profession and its services as has been mentioned above. In the first chapter, the report acknowledges that 'our system of legal education can be said to have failed to keep pace with developments in law and society over the past half century'.²¹⁵ The report stated that the study of statute law had been neglected and stated in section 1.15:

A third area of deficiency in the current system of legal education is in relation to legal research skills. This entails more than a simple ability to 'find the law'. ...It requires that all intending lawyers be trained to take

²¹² A Bradney. *How to study law*. 4th ed. (2000) 19.

²¹³ P Keyzer. *Legal problem solving: a guide for law students*. (1994) 2-3.

²¹⁴ Lord Chancellor's Advisory Committee on Legal Education and Conduct *First report on legal education and training*. (1996). Chapter one, section C. www.ukcle.ac.uk/resources/aclec.rtf. Accessed:8.5.2004.

²¹⁵ Lord Chancellor's Advisory Committee on Legal Education and Conduct *First report on legal education and training*. (1996) p13, section 1.12. www.ukcle.ac.uk/resources/aclec.rtf. Accessed:8.5.2004.

a problem, often presented in non-legal terms, and through a process of investigation to provide a range of potential legal solutions, each accompanied by an analysis of its benefits and risks to the particular client. Such skills should lie at the heart of what it means to be a lawyer.²¹⁶

In Chapter two, the report identified the need for legal education to be an all round preparation for a wide range of occupations; for students to be engaged in active rather than passive learning and criticises the rigid division between academic and professional stages of legal education. Actual lawyering skills were synthesised in Clinch's list above.

Similarly, in the United States, the 'McCrate report' of 1994²¹⁷ as it has come to be known, indicated that skills training belonged in law schools. In an overview of the report Rose²¹⁸ highlighted the findings that lawyers, particularly beginning lawyers, are under-prepared to manage lawyering tasks and need more instruction in such fundamental skills. Most importantly, the report noted that there would always be a gap between professional education and training. It identified ten fundamental lawyering skills which are: problem-solving, legal analysis and reasoning, legal research, factual investigation, communication, counselling, negotiation, litigation and alternative dispute resolution procedures, organisation and management of legal work, and recognising and resolving ethical dilemmas. Each skill has sub parts with detailed components. There are underlying values of the provision of competent representation, striving to promote justice, fairness and morality, improvement of the profession and professional self-development.²¹⁹

In terms of skills teaching, the report proposed a three dimensional methodology: development of the concept and theories underlying skills instruction to ensure students understand the necessity of and function of lawyering tasks; providing actual opportunities to perform these tasks with instructional feedback and, finally,

²¹⁶ Lord Chancellor's Advisory Committee on Legal Education and Conduct *First report on legal education and training*. (1996) p14-15, section 1.15. www.ukcle.ac.uk/resources/aclec.rtf. Accessed: 8.5.2004.

²¹⁷ American Bar Association. *An Educational Continuum: Report of The Task Force on Law Schools and the Profession: Narrowing the Gap*. Chicago: ABA (1992). Part 2: Chs 4 and 5. <http://www.abanet.org/legaled/publications/onlinepubs/maccrate.html>. Accessed: 3.2.2005.

²¹⁸ J Rose. "The McCrate Report's restatement of legal education: the need for reflection and horse sense." (1994) 44(4) *Journal of Legal Education* 548-565.

²¹⁹ American Bar Association. *An Educational Continuum: Report of The Task Force on Law Schools and the Profession: Narrowing the Gap*. Chicago: ABA (1992). Part 2: Ch. 5, Section B. <http://www.abanet.org/legaled/publications/onlinepubs/maccrate.html>. Accessed: 3.2.2005.

providing reflective evaluation of the performance of students. For Rose, the problem is that the report does not elaborate on what effective skills instruction should mean.²²⁰

In Australia, the 1999 report by the Australian Law Reform Commission²²¹ echoed the McCrate and Lord Chancellor's reports as regards the traditional divide between a largely academic training at university and post university professional training. The report noted the emphasis in Australian law schools on substantive courses and recommended a greater emphasis on professional skills. The Australian recommendations however treated skills with great reservation, legal research skills were not mentioned and the focus was rather on practical legal training after a degree. Taylor²²² in a review of writings on Australian undergraduate legal education noted that the focus has been on specific rather than generic competencies and practice-oriented rather than life skills.²²³ There is not as much pressure on Australian universities to take the vocational route because of the emphasis on practical and continuing legal education yet she notes a national moving towards acknowledging the need for law schools to integrate generic skills into teaching.

The apparent paucity of competency in legal skills and legal research in graduates in particular has also been borne out in various studies, the most well-known of which is that of Howland and Lewis²²⁴ who investigated the research skills of new graduates via a survey of firm law librarians in the United States. The increasing

²²⁰ J Rose. "The McCrate Report's restatement of legal education: the need for reflection and horse sense." (1994) 44(4) *Journal of Legal Education* 558-565.

²²¹ Australian Law Reform Commission. *Managing justice: a review of the federal civil justice system*. (2000). Chapter two. <http://www.austlii.edu.au/au/other/alrc/publications/reports/89/>. Accessed: 8.5.2004.

²²² L Taylor. "Skills: skills-kind inclusion and learning in law school." (2001) 8 *University of Technology, Sydney Law Review* 112p., <http://www.austlii.edu.au/au/journals/UTSLRev/2001/8.html>. Accessed: 8.12.2004.

²²³ L Taylor. "Skills: skills-kind inclusion and learning in law school." (2001) 8 *University of Technology, Sydney Law Review* 112p. <http://www.austlii.edu.au/au/journals/UTSLRev/2001/8.html>. Accessed: 8.12.2004.

²²⁴ JS Howland and NJ Lewis. "The effectiveness of law school legal research training programmes." (1990) 40 *Journal of Legal education* 381 – 391. Other studies include those by Hemmens who reviews similar studies: A Hemmens. "Advanced legal research courses: a survey of ABA-accredited law schools." (2002) 94(2) *Law Library Journal* 209-241, She also notes the increasing number of legal research programmes, variety of teaching approaches and the impact of technology; RK Mills. "Legal research instruction in law schools, the state of the art or, why law school graduates do not know how to find the law." (1977) 70 *Law Library Journal* 343-348.

number of legal research programmes bears testimony to the growing need for and acknowledgement of the importance of legal research skills in particular.²²⁵

2.2.7. LEGAL EDUCATION IN SOUTH AFRICA

As indicated in Chapter one: 1.2. and 1.5., following on from the realisation of the new political dispensation in 1994, the South African legal landscape changed considerably, particularly with respect to legal education. In order to promote and maintain new democratic values, provide equal opportunity as regards formalised legal education and address past imbalances, various forums were convened by the Ministry of Justice over a period of time (and are continuing) to re-examine legal education, legal practice and legal qualifications. In 1999, the deans of all the law schools (who comprised the membership of the South African Law Deans Association, SALDA) agreed (some grudgingly) upon a new LLB programme. The LLB degree was to become a four year undergraduate degree rather than a 'three plus two' qualification; a three year general undergraduate degree followed by a two year post-graduate qualification, although this route is still available to those students who register in faculties other than law.²²⁶ This new qualification has been in place since 2001.²²⁷

SALDA also acknowledged that this new qualification needed to reflect a better integration of theory and practice, values and related skills. Community work available in various forms was to be encouraged. As can be seen from chapters six and seven of this thesis, many law school curricula now include stand-alone skills modules and these skills are supposed to be reinforced in substantive modules. A

²²⁵ D Sears. "Teaching of first year legal research revisited: a review and synthesis of methodologies." (2001) 19(3/4) *Legal Reference Services Quarterly* 5-26; D Sears and L Lyman. *Teaching legal research and providing access to electronic resources.* (2001).

²²⁶ M Cowling, Dean: Pietermaritzburg Law School. Personal communication 23.2.2005; other authors have provided useful reviews of the pre- and post-1994 nature of legal education and the changes it is encountering: PF Iya. "The legal system and legal education in Southern Africa: past influences and current challenges." (2001) 51(3) *Journal of Legal education* 355-361; JB Kaburise. "The structure of legal education in South Africa." (2001) 51(3) *Journal of Legal education* 363-371; K O'Regan. "Producing competent graduates: the primary social responsibility of law schools." (2002) 119(2) *South African Law Journal* 242-252 McQuoid-Mason. *Using your imagination to light up knowledge, skills and values for LB students: lessons from South Africa.* (2006).
www.ukcle.ac.uk/interact/lili/2006/papers/keynote2.html?&pp=1. Accessed: 25.10.2006. provided a recent useful review:

²²⁷ A member of the UKZN Law Faculty academic staff is currently researching the impact of the new curriculum and degree structure which will be presented as a PhD thesis.

generic LLB programme was agreed to by SALDA but it was agreed that the exact nature and content of an LLB programme was for the discretion of each law school.

In 2002 The South African Qualifications Authority, SAQA, gazetted ten draft standards and exit level outcomes for the new LLB.²²⁸ The outcomes place considerable emphasis on skills. The outcomes are as follows:

- The learner will have acquired a coherent understanding of, and ability to analyse fundamental legal concepts, principles, theories and their relationship to values critically
- The learner will have acquired an understanding and application of the relevant methods, techniques and strategies involved in legal research and problem solving in theoretical and applied situations
- The learner is able to collect, organise, analyse and critically evaluate information and evidence from a legal perspective
- The learner will have acquired the ability to communicate effectively in a legal environment by means of written, oral, persuasive methods and sustained discourse
- The learner can solve complex and diverse legal problems creatively, critically, ethically and innovatively
- The learner is able to work effectively with colleagues and other role players in the legal process as a team or group and contribute significantly to the group output
- The learner will have acquired computer literacy to effectively communicate, retrieve and process relevant data in a legal environment
- The learner is able to manage and organise her or his life and professional activities in the legal field responsibly and effectively
- The learner can participate as a responsible citizen in the promotion of a just society and a democratic and constitutional state under the rule of law
- The learner has acquired legal skills and knowledge which enable him or her to solve problems responsibly and creatively in a given legal and social context

²²⁸ Government Gazette 23845, 20020920, GN 1190 12p.

- The learner is able to understand the relationship between the knowledge, skills and attitudes acquired in studying towards the LLB degree and educational, career and entrepreneurial opportunities.

Some of these outcomes such as that of being able to collect, organise, analyse and critically evaluate information, mirror the general exit level outcomes endemic to all SAQA qualifications.

The disquiet about the lack of core skills presented by new LLB graduates has been noted and discussed in various forums²²⁹ although this is not new and is reflected in the literature in terms of skills that graduates need, function of the law school to produce competent graduates, and lack of focus on striking a balance in terms of teaching substantive knowledge as well as skills such as research and writing. The current South African law school has been characterised as follows:

- most law students are undergraduates
- English is not the mother tongue for most students
- the deficiencies of schooling for Blacks in the past has resulted in students with limited exposure to reading, writing, analysis and libraries and research
- diversity of the student population in terms of language, religion, culture and race and
- diverse students who have not previously enjoyed much cross-racial interaction
- includes students from cultures that are primarily oral rather than text based
- largely passive and uncritical students who listen rather than 'do'
- teaches a legal system that is a blend of systems, and where customary law and the tradition of Roman-Dutch, English and common law are uneasy bedfellows
- an evolving legal system with a new Constitution that promotes human rights

²²⁹ Anon. "Legal education review should look at complete picture." (2004) 438 Nov *De Rebus* 2. See also Chapter seven: 7.2.1.; Z Motala. "Legal education in South Africa: moving beyond the couch-potato model towards a lawyering-skills approach: : a case for a comprehensive course on legal research, analysis and writing." (1996) 113(4) *South African Law Journal* 695-701; O'Regan. "Producing competent graduates: the primary social responsibility of law schools." (2002) 119(2) *South African Law Journal* 247-248.

- the lecture /transmission method of delivery of the 'one size fits all' lecture with tutorials and law clinic as representations of active learning and application
- the law is taught as discrete modules and skills modules are often taught separately from substantive modules.²³⁰

Thus there is a critical need for new methods of learning and teaching as has been recognised by SAQA. Chapter seven: 7.7.2.1.2. reveals some the dilemmas facing teachers of law and learners in the current times.

There have also been considerable changes in the nature of South African published legal sources. In the past five years the two major local legal publishers have progressed to the provision of many of their products in intranet and internet formats. This has not only made searching more efficient but search capabilities that only the electronic format can provide, such as forward and backward links and searching across multiple publications simultaneously have enhanced access to information. All primary sources namely all major law report series and statutes are now available electronically. These search capabilities, as mentioned earlier, have meant that traditional methods of research, such as starting with the secondary sources, are being eroded. Much critical material though is proprietary and not in the public domain, and expensive so not available to many small law firms. Within the country, the provincial law societies provide an electronic research service to their members. Larger law firms and government departments subscribe to the electronic products. University libraries tend to subscribe to secondary source and foreign databases.

The main problem with the local electronic databases is that they are not integrated so searching needs to happen across a variety of databases in order to inform a comprehensive search. Different law report series are produced by different publishers. These databases are also complex in terms of their arrangement and search functioning. The UKZN Library subscribes to most of the South African and

²³⁰ BK Baker. "Teaching legal skills in South Africa: a transition from cross-cultural collaboration to international HIV/AIDS solidarity." (2003) 9 *Legal Writing* 145-152.

some key international electronic products available on behalf of the Law Faculty. Formal teaching in the use of databases happens throughout the LLB degree.²³¹

2.2.8. SUMMARY

This section has considered the nature of legal research. It has been argued that the basic skills and knowledge that underpin legal research are generic to all forms of research but the particular nature of the study of law and the sources of law give legal research its own flavour. Published sources of law play a significant role in legal research because of the adherence to precedent and substantiation of argument. Law is a problem-solving profession but there are different views about how problem-solving should be taught in law school and how it operates in practice and how this impacts on legal research. Legal research has been approached from two angles, namely the bibliographic and the problem-solving approach. Legal education has changed since World War Two and now caters for a wider audience than only those interested in pursuing a law career. This has brought about changes in terms of the greater integration of skills and substantive knowledge within the LLB degree, although not without disagreement as to whether teaching 'lawyering skills' is the function of the law school. In South Africa, the nature of legal education has changed radically since 1994 and the structure of the LLB degree has changed as has the curriculum, with a greater emphasis on associated skills relating to problem-solving, computer literacy and information literacy. Legal research advocates the knowledge and skills of information literacy.

²³¹ AD Crocker. "Blended learning: a new approach to legal teaching in South African law schools." (2006) 31(2) *Journal for Juridical Science* 1-25.

2.3. FUNDAMENTALS OF LEARNING AND TEACHING

2.3.1. INTRODUCTION TO LEARNING AND TEACHING

This section considers the interrelated aspects of learning, teaching and assessment within the formal higher education environment. The goal of formal education is to promote learning. In order for this goal to be achieved it is acknowledged that there needs to be a match between learning objectives, assessment, learning activities and teaching activities or methods. It is acknowledged that the learner and not the teacher or content should be the central focus. Learning is a process not just a series of discrete bits of information and involves the teacher on the one hand, the learner on the other and content and process in-between as well as assessment. There has been a move away from viewing the learner as a passive recipient of information to the learner being an active participant in the process. One of the problems in higher education in particular is the emphasis on the lecture method of delivery largely because of unfavourable teacher / learner ratios and then the delivery of a 'one size fits all lecture.' Higher education is not about learning facts but more the development of the cognitive skills associated with true learning and construction of knowledge.

In this section learning is defined and described as is the nature of learning activity. An overview of research into learning and student learning development in particular is followed by consideration of approaches to learning which are distinguished from learning styles although the terms are often used synonymously. Deep and surface approaches to learning are largely influenced by extrinsic and intrinsic factors whereas learning styles reflect general predispositions to learning. Different learning styles require different approaches to teaching.

Various models of learning are presented, in particular the constructivist model which has received much attention. The models explain how learning takes place whilst active learning reflects a particular approach to encourage meaningful and deep learning. Learning styles are explained with an overview of a study of research into learning styles to date and two main theorists, namely Kolb and Vermunt (see section 2.3.5.2.) . Some characteristics of higher education learners are presented

as well as why learning needs to be considered in the context of legal research. Teaching is defined, the nature of the learning cum teaching process described as well as salient features of assessment in the following sections.

2.3.2. THE FORMAL HIGHER EDUCATION ENVIRONMENT

2.3.2.1. Introduction

The post World War Two period has seen an unprecedented rise in enrolments at universities around the world. The nature of the student populations has changed in terms of diversity of ethnicity, language, culture, socio-economic backgrounds, preparedness for university and age. Universities are now far more accessible to all strata of society.²³² There are increasing pressures from society at large in terms of accountability of universities and thus the development of standards, and direct preparation of graduates for vocational careers. The economy demands a workforce that has critical thinking and problem-solving skills and there is often considered to be a disconnect between the demands of professions and the workplace and the goals of university education.²³³ In no small way has and is technology changing the nature of learning, teaching and research.

South African higher education is facing similar issues and characteristics as the rest of the world but the time scale for their emergence has been much shorter. The massification of university education has really only happened since the end of Apartheid in 1994. As indicated in Chapter one, the South African higher education landscape has undergone a major transformation since 1994 with various higher education institutions being merged; there being changes to educational policies

²³² D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 11.

²³³ SA Baiocco and JN De Waters. *Successful college teaching: problem-solving strategies of distinguished professors*. (1998) 10 -25; J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies*. (2003) 903; J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *HigherEducation* 27-28; DA Schon. *Educating the reflective practitioner*. (1987) 3-17; C Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 17-19; A Lantz and C Brage. "Towards a learning society- exploring the challenge of applied information literacy through reality-based scenarios." (2006) 5(1) *ITALICS: Innovation in Teaching and Learning in Information and Computer Sciences* 15p. <http://www.ics.heacademy.ac.uk/italics/>. Accessed: 20.2.2006.

and practices and the opening up of higher educational institutions to all after decades of access being restricted on the grounds of race.²³⁴

The formal education environment has distinct characteristics. This learning environment is often imposed and thus learning is situated and mediated. Even at university level where students may consciously choose to attend a course and consciously choose a particular course of study, choices may be limited or dictated in terms of what are considered by the institution or accreditation or professional bodies to be required curriculum, as well as the prevailing institutional climate and national imperatives. In terms of curricula the formal education environment seeks particular coherence and continuity within and between content and process, and theory and practice within historical and socio / economic / political contexts. Desired outcomes are as much about learning how to learn as they are about content, critical thinking, higher order cognitive skills and problem-solving skills, equipping learners with the tools and activities to facilitate learning, and transferability of skills and knowledge learned to other learning situations. Much of the content and process of formal education curricula is highly context specific. Learning objectives, outcomes and the means to reach those outcomes are usually subjected to forms of assessment, often summative. Formal education is geared towards explicit accreditation in terms of a qualification. In this formal education environment then, there is not only a learner or learners, but learning objectives, monitoring and assessment, teachers and curricula.

2.3.2.2. Aim and character of university undergraduate teaching and learning

In her book *Rethinking university teaching: a conversational framework for the effective use of learning technologies*,²³⁵ Laurillard has provided a useful overview of the aim and character of undergraduate teaching at university which sets the background against which learning and teaching theory is presented. She begins with the premise that university teachers should accept primary responsibility for 'what and how their students learn'. She indicated that given the nature of

²³⁴ S Gravett and H Geysler. *Teaching and learning in higher education*. (2004) 1-5; JD Jansen. Changes and continuities in South Africa's higher education system, 1994 to 2004. In: Chisholm, L. ed. *Changing class: education and social change in post-Apartheid South Africa* (2004) 293-314.

²³⁵ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. 2nd ed. (2002) 1-20.

universities as complex systems of departments, curricula, methods, timetables and so on, all which determine the possible ways in which students may learn, students are actually left with limited choices concerning learning. It is the responsibility of teachers to maximise the potential of learning choices available and provide the means whereby students can maximise benefits from their choices.

She has described undergraduate university learning as being characterised by exposure to 'others' descriptions of the world²³⁶ rather than the world directly although this is open to debate. This does not imply a passive role for the learner as the aim of university education is much broader. At undergraduate level learners are 'exploring already known fields not breaking new ground, except at a personal level...'²³⁷ The aim of undergraduate teaching is not only to impart information, ideas and concepts, often subject specific. It is also the development of skills and capabilities that make student learning feasible and enable students to develop different ways of seeing the world. What is important is the way in which students learn to handle knowledge and the fact that 'learning is an activity that develops capabilities and knowledge is an aspect of that activity.'²³⁸ The challenge is to help students move beyond their experiences to date, to use experiences, reflect on them and change their perspectives on them.²³⁹

According to Laurillard, in one sense knowledge needs to be seen as a tool²⁴⁰: 'A learner cannot relate to a description in the same way as an object'²⁴¹

Academic learning requires him to take a different perspective on these activities, to generalise from them to obtain an abstraction, a description of the world that does not consist in doing the activity alone.²⁴²

²³⁶ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. 2nd ed. (2002) 4.

²³⁷ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 2.

²³⁸ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 13.

²³⁹ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 20;

²⁴⁰ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 14.

²⁴¹ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 14.

²⁴² D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 18-19.

Learners learn directly from everyday experiences but they also need to learn how to describe the world and this is what academic learning aims to do via teaching 'others' descriptions of the world.²⁴³ Biggs²⁴⁴ concurred with this view that 'learning is a way of interacting with the world'. Biggs reiterated that education is about conceptual change not just acquisition of information.

It is up to the teacher to lead the learner through the appropriate reasoning processes and how the teacher does this is critical to learner success.²⁴⁵ In order for this to happen the teacher needs to know something about how learners learn, how subject matter comes to be understood and how and why learning does or does not take place. The teacher also needs to understand in particular, implementation techniques for effective learning to take place.²⁴⁶

Concepts and ideas, content and skills become knowledge when they are meaningful, internalised, applied and applicable to a range of situations and they can be applied in 'authentic' activities (exploring relationships between real world activities and the symbolic description of them). The acquisition of this knowledge allows learners to build an increasingly rich understanding of knowledge as a tool itself and how it operates.²⁴⁷ It is insufficient for learners to simply undertake multiple application exercises to reinforce procedures and processes. They need to be able to stand back from the exercises to be able to see why procedures or processes are necessary; where they fit and don't fit and identify those instances where they are not needed.²⁴⁸ Knowledge and concepts are usually context

²⁴³ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 4.

²⁴⁴ J Biggs. *Teaching for quality at university*. (1999) 13. See also DA Kolb. *Experiential learning: experience as the source of learning and development*. (1984) and JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004). See also E De Corte. Designing learning environments that foster the productive use of acquired knowledge and skills. In: De Corte, E ... et al. *Powerful learning environments: unraveling basic components and dimensions*. (2003) 21-34.

²⁴⁵ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. 2nd ed. (2000) 16. Various authors see an understanding of how learners learn as critical to successful teaching: LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses*. (2003) and H Fry, S Ketteridge and S Marshall. Understanding student learning . In: Fry, H, Ketteridge, S and Marshall, S. *A handbook for teaching and learning in higher education: enhancing academic practice*. (1999) 21-41; 41-57.

²⁴⁶ See 2. 3.7.

²⁴⁷ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 12; JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 16-24.

²⁴⁸ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning*

specific, even if it is a case of the learner being in a specific context rather than the knowledge. Concepts need to be grounded in experience and practice before they can be abstracted. The point of academic education is to enable knowledge to be abstracted and 'represented formally to become generalisable and therefore more generally useful.'²⁴⁹

2.3.3. LEARNING

In order to more fully understand the aim of a university education, it is necessary to attempt to define and describe the characteristics of learning. Learning, like IL has proved to be a difficult concept to define. There appears to be consensus that learning is a multifaceted process not just absorption of pieces of information.²⁵⁰

2.3.3.1. What is learning?

Gagne²⁵¹ has defined learning in broad terms as follows:

Learning is a change in human disposition or capability that persists over a period of time and is not simply ascribable to processes of growth. The change must be capable of being retained over some period of time.

Curzon has defined learning as:

apparent modification of a person's behaviour through his activities and experiences, so that his knowledge, skills and attitudes, including modes of adjustment, towards his environment are changed, more or less permanently.²⁵²

Moon²⁵³ has described learning as 'a process of constant mutually occurring modifications.'

technologies 2nd ed. (2002) 15.

²⁴⁹ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 16.

²⁵⁰ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. 2nd ed. (2002) 12; JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 11-31; F Marton and R Saljo. Approaches to learning. In: Marton, F., Hounsell, D and Entwistle, N. (eds). *The experience of learning*. (1984) 36-55; LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses*. (2003) 27-59; J Bruner. *The process of education*. (1960) 17-18.

²⁵¹ RM Gagne. *The conditions of learning and theory of instruction*. (1985) 2.

²⁵² LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 12.

²⁵³ JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 11.

Not all behaviours are learned, some are instinctive. Curzon believes that learning processes are the same for all human beings but learning styles and patterns are affected by the social, ideological and cultural environments in which learners operate.²⁵⁴ Joyce, Calhoun and Hopkins²⁵⁵ affirmed that: 'learning experiences are composed of content, process and social climate.' The IL learning experience is composed similarly. They further contend that, through the selection of appropriate models of teaching 'content can become conceptual rather than particular, the process can become constructive inquiry rather than passive reception, and the social climate can become expansive not restrictive. Our choices depend on the range of our active teaching repertoire.'

Learning is not just based on basic needs such as survival but is often 'self imposed'²⁵⁶ because human beings wish to understand that of which they are ignorant. Much learning is formalised through the education system.

Behaviour is a response to stimuli and can be simple or very complex depending on the situation and the extent to which an attempt is made to adapt to changes in the environment. The two aspects that constitute behaviour are thus the stimulus on the one hand which results from changes in the known environment; and the response which is the attempt to adapt to these changes.²⁵⁷

Bruner²⁵⁸ claimed that the first objective of learning, apart from pleasure, is that learning should 'serve us in the future'.²⁵⁹ There are two ways in which this happens according to Bruner, via highly specific application to future similar tasks and via non specific transfer of principles and attitudes. This involves not just learning skills but general ideas that form the basis of future recognition of problems. It is necessary to have a broad understanding of phenomena in order to be able to transfer learning to new problems. This transfer of learning is at the core of educational processes.

²⁵⁴ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 12.

²⁵⁵ B Joyce, E Calhoun, and D Hopkins. *Models of learning – tools for teaching*. 2nd ed. (2002) 7.

²⁵⁶ B Joyce, E Calhoun, and D Hopkins. *Models of learning – tools for teaching*. 2nd ed. (2002) 7.

²⁵⁷ LB Curzon *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 5.

²⁵⁸ J Bruner. *The process of education*. (1960) 17-18.

²⁵⁹ J Bruner. *The process of education*. (1960) 17.

2.3.3.2. Learning activities

Activity has been described as ‘the process in which the surrounding reality is transformed by men’s creative efforts.’²⁶⁰ This is traditionally described as labour. The main components of such activity are needs, goals, motivations etc. Activity is always implicitly or explicitly object related, that is, geared towards the creation of some mental, material or spiritual product. Learning activity has all the above characteristics but also specific object related content and involves ‘creative and reforming elements’.²⁶¹ Learning activity does not develop spontaneously and depends largely on the quality of teaching.²⁶² Vermunt²⁶³ has defined learning activities as ‘thinking activities that people employ to learn’. He identifies three types of learning activities. These are the cognitive processing activities which people use to process learning content which lead to attainment of knowledge, skills and understanding; affective learning activities which include the emotional aspects of learning; and metacognitive regulation activities which are those activities that regulate the cognitive and affective learning activities. From a functional point of view these activities are described as being able to analyse; discern relevant from irrelevant information and so on. Claimed Vermunt:²⁶⁴

In modern times, and in face of the increasing redundancy of knowledge, it is also less important which specific domain knowledge someone has acquired. It is obviously more important that people acquire skill in thinking activities that make them capable of assimilating new knowledge in order to deal with the huge amounts of information that they are confronted with in their work.

This reflects on the contested nature of the role of generic and context specific skills and knowledge in learning.

2.3.3.3. Factors affecting learning

Further to those factors mentioned above: stimuli, process, social climate and basic needs, there is an increasing recognition of a range of factors that affect how

²⁶⁰ VV Davydov. What is real learning activity? In: Hedegaard, M and Lompscher, J. *Learning activity and development*. (1999) 124.

²⁶¹ VV Davydov. What is real learning activity? In: Hedegaard, M and Lompscher, J. *Learning activity and development*. (1999) 125.

²⁶² J Lompscher. Learning activity and formation: ascending from the abstract to the concrete. In: Hedegaard, M and Lompscher, J. *Learning activity and development*. (1999) 140.

²⁶³ J Vermunt. “Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenological analysis.” (1996) 31 *Higher Education* 25-27.

²⁶⁴ J Vermunt. “Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenological analysis.” (1996) 31 *Higher Education* 27.

learning takes place. Bruner²⁶⁵ referred to prior learning, the importance of which is central to the notion of providing authentic learning experiences. Prior learning, the sum of all experiences, ideas and knowledge, is unique to each individual and constantly being added to and provides frameworks for engaging with the world. The interface between prior and new knowledge and the attempt to construct new knowledge and add to the existing knowledge base at this interface is in a constant state of flux. For the teacher, it is essential to integrate prior knowledge into content-specific knowledge for successful learning to take place.²⁶⁶ Bruner indicated however that in order to use prior learning 'we must organise it in such a way that it is no longer bound to the specific situation in which the learning occurred.'²⁶⁷

Moon²⁶⁸ usefully elucidated on a range of factors affecting learning. Whilst learners may all be exposed to the same learning situation, various factors affect how they individually and differentially perceive and assimilate the knowledge and skills of the situation. The process and extent of assimilation and accommodation of new ideas and information depends in large measure on their alignment with existing knowledge and external factors such as motivation, anxiety and the impact of the content on the learner's current belief system. Meaning is also socially constructed and new ideas may or may not conflict or challenge or fit in with existing communal norms and ideas.²⁶⁹ Moon noted the importance of language in learning and how learning may be constrained by the absence of vocabulary. It stands to reason then that teacher and learner need to have, share and understand a common vocabulary and language. It is the role of the teacher to provide and ensure there is a shared understanding of language. She further considered how response to a situation is affected by an individual's frames of reference or intentions or focuses of concern; skills, emotions and feelings and the importance of variation in the learning experiences.²⁷⁰

²⁶⁵ J Bruner. "Learning and thinking." (1959) 29 *Harvard Educational Review* 184.

²⁶⁶ PA Alexander, DL Schallert and VC Hare. "Coming to terms : how researchers in learning and literacy talk about knowledge." (1991) 61(3) *Review of Educational Research* 319, 324-326, 330-331; DA Kolb. *Experiential learning: experience as the source of learning and development.* (1984) 30; JA Moon. *A handbook of reflective and experiential learning: theory and practice.* (2004) 23-26.

²⁶⁷ J Bruner. "Learning and thinking." (1959) 29 *Harvard Educational Review* 184.

²⁶⁸ JA Moon. *A handbook of reflective and experiential learning: theory and practice.* (2004) 9-68.

²⁶⁹ JA Moon. *A handbook of reflective and experiential learning: theory and practice.* (2004) 18-21.

²⁷⁰ JA Moon. *A handbook of reflective and experiential learning: theory and practice.* (2004) 21-44; J Bruner. *Towards a theory of instruction.* (1969) 11-12.

Learning is affected by understanding which in turn leads to knowledge creation. Many teachers teach to achieve understanding, yet it is difficult to be clear as to what understanding actually means or how to ensure it happens. Understanding may be quantified by learners as doing whatever is necessary to meet the requirements of assessment or regurgitation of facts. Learning happens when understanding can be performed or demonstrated.²⁷¹ Learning is not just about committing to memory but being actively involved in the process of getting knowledge.²⁷² Kolb and Moon claimed that learning is experiential and learning occurs when social and personal knowledge interact in the context of experience.²⁷³

Knowledge is the object of understanding,²⁷⁴ and knowledge is of various kinds. Knowledge is declarative – the what (content and discourse knowledge);²⁷⁵ procedural – knowledge put into practice, the when; and conditional knowledge – why and under what conditions.²⁷⁶ Often universities are accused of focusing on the declarative knowledge. According to Bruner's description,²⁷⁷ the act of learning involves acquisition of new information, transformation or manipulation of that information to fit new activities, and finally, evaluation, the critical step of ascertaining whether the application to new situations was appropriate and sufficient.

Other factors affecting learning include learning styles and approaches (see below), motivational, cultural and personal factors, aptitude, multiple intelligences, institutional and classroom climate and teacher – learner interaction.²⁷⁸

2.3.3.4. Overview of research into student learning and development

²⁷¹ J Biggs. *Teaching for quality at university*..(1999) 35-36.

²⁷² J Bruner. *Towards a theory of instruction*. (1967) 72.

²⁷³ DA Kolb. *Experiential learning: experience as the source of learning and development*. (1984) 33-38; JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004).

²⁷⁴ J Biggs. *Teaching for quality at university*. (1999) 40.

²⁷⁵ PA Alexander, DL Schallert and VC Hare. "Coming to terms : how researchers in learning and literacy talks about knowledge." (1991) 61(3) *Review of Educational Research* 327.

²⁷⁶ J Biggs. *Teaching for quality at university* .(1999) 40-41; PA Alexander, DL Schallert and VC Hare.

"Coming to terms: how researchers in learning and literacy talk about knowledge." (1991) 61(3) *Review of Educational Research* 323.

²⁷⁷ J Bruner. *The process of education*. (1960) 48-50.

²⁷⁸ GH Gregory and C Chapman. *Differentiated instructional strategies: one size doesn't fit all*. (2002) 19-36; J Bruner. *Towards a theory of instruction*. (1967) 40-72; WR Crozier. *Individual learners personality differences in education*. (1997); AF Grasha. *Teaching with style*...(1996); H Gardner. *Frames of mind: the theory of multiple intelligences*. (1983)

Although learning has been a major focus of research of psychologists, it has not always been directed at improving teaching.²⁷⁹ Student learning research originated in Sweden with a study by Marton and Saljo²⁸⁰ who categorised learning into deep and surface learning approaches (see section 2.3.3.5.). Research has gathered momentum since then and has been based on two major themes, namely phenomenography and constructivism. According to Laurillard,²⁸¹ Marton first used the word phenomenography to mean ‘descriptions of the phenomenon, specifically the alternative ways students conceptualize key phenomena’. Constructivism grew out of cognitive psychology.²⁸² The cognitive school fundamentally views the learner rather than the learning task as being of significance.²⁸³

A learner’s strategy for moving towards a learning goal is affected by three factors. The first, the informational situation is where the learner decides whether more information is needed and how much is needed to arrive at a conclusion. The second, certainty of cognition involves the intensity of thinking needed to arrive at a conclusion. Thirdly, the general consequence of failure is the risk involved as a result of this thinking.²⁸⁴ The learner needs to possess a range of intellectual skills and capacities to determine the extent to which these factors are a help or a hindrance in learning development.

Student development research is synonymous with the work of Nevitt Sanford who published extensively in the 1960’s.²⁸⁵ His research found that development occurs when students meet new situations that provide challenges that they have to respond to. Development progresses as higher levels of complexities and differentiation as regards concepts and actions are explored. Students must also be able to integrate the ‘parts to a whole’ in terms of knowledge and skills integration

²⁷⁹ J Biggs. *Teaching for quality at university*. (1999) 11.

²⁸⁰ F Marton and R Saljo. “On qualitative differences in learning : outcomes and processes.” (1976) 46 *British Journal of Educational Psychology* 4-11.

²⁸¹ D Laurillard. *Rethinking university teaching: conversational frameworks for the effective use of learning technologies*. 2nd ed. (2002) 251.

²⁸² J Biggs. *Teaching for quality at university*. (1999) 12.

²⁸³ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 91-93.

²⁸⁴ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 105-106.

²⁸⁵ A Chickering and L Reisser. *Education and identity*. (1993) 1-3. Sanford published numerous books and articles. Some of the books that dealt with education and student learning are: *Where colleges fail: A study of the student as a person; Students and the occupational world; The student in the total learning environment; The American college; Education for individual development*. For a full list of his publications see: terpconnect.umd.edu/~jtpurta/Original%20Documents/Sanfordworksforweb.PDF

and develop new responses over time to become more complex human beings. In order for this to happen, subtly, or in obvious ways, a learner's equilibrium must be disturbed and learners enticed out of their comfort zones. Disequilibrium is an important catalyst for learning new skills and knowledge. Risk taking is important for learning.

What determines whether an experience has an impact and to what extent it affects development 'depends upon the characteristics of the person who encounters it.'²⁸⁶ Although teachers would generally like 'our students to learn the same thing, yet we want each to make it their own.'²⁸⁷ Chickering²⁸⁸ and Creemers²⁸⁹ amongst others have indicated that any particular experience can result in different development patterns or outcomes because no two individuals are the same. Chickering²⁹⁰ provided a brief overview of a huge study undertaken in 1991 by Pascarella and Terenzini²⁹¹ which reviewed all major research undertaken concerning the impact on student development, of higher education, since 1967. The research revealed an array of studies that focussed on a number of theories.

Psychosocial theories are those that see development as a series of practical or quantitative and qualitative activities and changes in terms of personal values and behaviours and thoughts and relationships to others. Cognitive theories describe the changes that occur in thinking and frames of reference around beliefs, attitudes and values. Much research has considered learning styles and how personal characteristics or preferences of learners have affected their ways of learning, experiences and development. Other research has considered the impact of environment on behaviour as well as factors such as gender, race and age.

Chickering and Reisser²⁹² have provided a useful model of student development, comprising seven vectors. They acknowledge that steps in the developmental

²⁸⁶ A Chickering and L Reisser. *Education and identity*. (1993) 298.

²⁸⁷ D Laurillard *Rethinking university teaching: conversational frameworks for the effective use of learning technologies*. 2nd ed. (2002) 2.

²⁸⁸ A Chickering and L Reisser. *Education and identity*. (1993) 298.

²⁸⁹ BPM Creemer. *The effective classroom*. (1994) 23. See also section 2.3.3.3.

²⁹⁰ A Chickering and L Reisser. *Education and identity*. (1993) chapter 2.

²⁹¹ ET Pascarella and PT Terenzini. *How college affects students: findings and insights from twenty years of research* (1991).

²⁹² A Chickering and L Reisser. *Education and identity*. (1993) 234-241.

process are age dependent; development is not even or the same for any two individuals and aspects of development may overlap and be revisited. There are seven vectors:

- the first vector is where competencies in all spheres are relatively underdeveloped and development occurs as there are movements towards a well developed level of confidence in one's abilities and competencies
- the second vector, which they call managing emotions, considers movement from a state of little control over emotions to more flexible control, appropriate expression and increased ability to 'integrate feelings with actions'²⁹³
- the third vector called moving through autonomy toward interdependence, indicates the change from poor self-direction and problem solving ability and emotional dependence to a maturing of emotional processes that enable the individual to develop a sense of direction and the importance of interdependence
- the fourth vector called developing mature interpersonal relationships involves development of tolerance and appreciation of differences and capacity for intimacy
- the fifth vector called establishing identity is where students develop a sense of self worth and acknowledgement of their specific personalities and their place in the social fabric
- the sixth vector called developing purpose is the phase where vocational goals and focus on interpersonal commitments and life interests become clearer
- the seventh vector called developing integrity reflects the gradual move from a situation of self interest and lack of clarity about values and beliefs to one of social responsibility, and clarification and congruence in terms of personal attitudes and beliefs and actions.

Each step leads to increased skills, awareness, confidence and complexity and integration, versatility and ability to adapt, and potentially, a move from surface to deep learning.

²⁹³ A Chickering and L Reisser. *Education and identity*. (1993) 38.

2.3.3.5. Approaches to learning: deep and surface learning

Biggs,²⁹⁴ a proponent of the constructivist approach to teaching and learning, has provided a useful basic overview of how learning occurs. He claims that

meaning is not imposed or transmitted by direct instruction, but is created by the students' *learning activities* (his italics), their approaches to learning what people construct from a learning encounter depends on their motives and intentions, on what they know already and on how they use their prior knowledge. Meaning is therefore personal; it must be learning is a way of interacting with the world. As we learn, our conceptions of phenomena change and we see the world differently.²⁹⁵

It is not so much the acquisition of information that causes a change in one's views of the world but the conceptual change that occurs as a result of what one thinks and does with information.²⁹⁶

Marton and Saljo²⁹⁷ have been credited with employing the terms deep and surface learning, based on research into student approaches to learning. Approaches to learning are not to be confused with approaches to studying which is affected by assessment demands in particular.²⁹⁸ The approaches of student learners to learning can be described as surface or deep. Much has been written on these two approaches.²⁹⁹ Surface learning basically involves applying minimal effort to a task; rote learning as opposed to understanding; low levels of cognitive activity; lists-of-points learning instead of developing argument and so on. Intrinsic and extrinsic factors may encourage this approach such as teaching and assessment methods; anxiety levels; lack of motivation; study priorities; workloads and time management; inability to comprehend subject matter; poor teacher planning and attitudes by both

²⁹⁴ J Biggs. *Teaching for quality at university*. (1999) 12-13.

²⁹⁵ J Biggs. *Teaching for quality at university*. (1999) 12-13.

²⁹⁶ J Biggs. *Teaching for quality at university*. (1999) 12-13.

²⁹⁷ F Marton and R Saljo. "On qualitative differences in learning: outcomes and process." (1976) 46 *British Journal of Educational Psychology* 4-11.

²⁹⁸ F Marton and R Saljo. "On qualitative differences in learning: II outcome as a function of the learner's conception of the task." (1976) 46 *British Journal of Educational Psychology* 125; N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts: paper to be presented at the TLRP conference, Leicester, November, 2000*. (2000). www.tlrp.org/acadpub/Entwistle2000.pdf 3. Accessed: 6.3.2005.

²⁹⁹ J Biggs. *Teaching for quality at university*. (1999) chapter 2; P Ramsden. *Improving learning: new perspectives* (1988); F Marton, D Hounsell and N Entwistle. *The experience of learning*. (1984). Chapter 3 overviews research; M Prosser and K Trigwell. *Understanding learning and teaching: on deep and surface learning*. (1999).

teacher and learner to name but a few.³⁰⁰ Generally it is accepted that surface learning is prompted by extrinsic factors rather than intrinsic.³⁰¹

The deep learning approach occurs when the learner feels a need to engage with a task in a meaningful way, often because they are interested or motivated to do well. Learners attempt to develop real understanding about what is being learnt.³⁰² Such learners tend to engage more actively with their learning situation. Teaching methods in no small way can affect the deep approach via the adoption of problem solving; questioning approaches; encouraging depth of learning rather than breadth of coverage and using 'teaching and assessment methods that support the explicit aims and objectives of this course.'³⁰³ This will be explored more fully under the section on teaching. Entwistle and Ramsden³⁰⁴ quoting Pask, have indicated that full understanding is only achieved when 'the student can explain the topic by reconstructing it, and can also demonstrate that understanding by applying the principles learned to an entirely new situation.'

The definition of deep learning is a generic one³⁰⁵ and 'the processes needed to develop deep learning necessarily vary between subject areas,' and that learners are not wholly in one or other category but rather reflect a tendency towards one or the other. There are degrees of deep learning and it is difficult to measure this qualitative learning approach. Students will adopt a particular approach depending on what the expectations of them are. Pask³⁰⁶ noted that learners may act in either way depending on subject matter demands and may master both.

Deep learners are holistic and / or serialist,³⁰⁷ and the distinction is a matter of degree. Holist learners deal with multiple topics and goals simultaneously, assimilate detail from these in order to focus on the main topic and usually ask

³⁰⁰ J Biggs. *Teaching for quality at university*. (1999) 14-16.

³⁰¹ LB Curzon. *Teaching in further education: an outline of principles and practice*. 6th ed. (2004) 232.

³⁰² LB Curzon. *Teaching in further education: an outline of principles and practice*. 6th ed. (2004); J Biggs. *Teaching for quality at university*. (1999) 16.

³⁰³ J Biggs. *Teaching for quality at university*. (1999) 17.

³⁰⁴ NJ Entwistle and P Ramsden. *Understanding student learning*. (1983) 25.

³⁰⁵ N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts: paper to be presented at the TLRP conference, Leicester, November, 2000*. (2000). www.tlrp.org/acadpub/Entwistle2000.pdf 4. Accessed: 6.3.2005

³⁰⁶ G Pask. "Styles and strategies of learning." (1976) 46 *British Journal of Educational Psychology* 133.

³⁰⁷ G Pask. "Styles and strategies of learning." (1976) 46 *British Journal of Educational Psychology* 130-133.

questions in connection with broad relations and a more global approach. This strategy embodies an active involvement in the learning process. The serialist on the other hand works with one topic and one goal at a time and questions tend to be more narrowly focused. The holistic learner's strategy involves building descriptions and seeing relationships between topics. A serialist learning strategy on the other hand needs to be provided with a specific description in order to assimilate procedures and build concepts. Both description building and procedures building are necessary for understanding any topic.

Research has shown³⁰⁸ that it is explanation, enthusiasm and empathy on the part of the teacher which are most likely to encourage deep learning. In terms of assessment, those activities that encourage students to think for themselves such as problem based assignments and essays tend to shift students towards a deep approach. Students need to show or demonstrate their understanding. Learning approaches are also influenced by application of prior learning and an alignment between teaching and learning. A module and a teacher may have a target understanding that is, the understanding in terms of the syllabus and its interpretation by the teacher. A learner constructs a personal understanding. This, coupled with classroom dynamics and environment affect how the learner reacts and understanding is said to happen depending on the degree to which target and personal understandings come together.

These approaches to learning describe the ways in which learners relate or respond to a particular teaching / learning environment and task, and are not to be confused with learning styles which indicate predispositions to learning in particular ways that are not necessarily fixed.³⁰⁹

³⁰⁸ N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts: paper to be presented at the TLRP conference, Leicester, November, 2000.* (2000). 8. www.tlrp.org/acadpub/Entwistle2000.pdf . Accessed: 6.3.2005.

³⁰⁹ N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts: paper to be presented at the TLRP conference, Leicester, November, 2000.* (2000). 8. www.tlrp.org/acadpub/Entwistle2000.pdf . Accessed: 6.3.2005.

2.3.3.6. Models of learning

Carnell and Lodge³¹⁰ have presented three simple models of learning (other writers have presented equivalent models) which they indicate explain how people learn. The first of these models is the 'reception model'. In this model the learner is passive, concerned with acquiring new knowledge, memorization and then reproducing that information. The quantity of information or how much one can learn is important. Personal, emotional or social aspects of learning do not feature. The learner is highly dependent on the teacher and does not think critically. The authors indicate that research has shown that this model of learning tends to lead to categorisation of learning in students as determined by what the teacher provides, whilst teachers view learners' abilities to learn as determined by motivation, personal attributes, intelligence and so on. Learning in the 'reception model' does not encourage deep learning, or transferability of learning to different situations or independent thinking but rather surface learning.

The 'constructivist model'³¹¹ actively involves learners to a great degree through activities such as discussion and open ended questioning usually related to their everyday experiences. Learners take responsibility for their learning. The emphasis is more on 'drawing out new knowledge' rather than 'putting in' information. Laurillard's³¹² work has confirmed this and has indicated that constructivism involves a problem-solving approach as its instructional model. The design of the problem in terms of activity is executed via a process of task analysis, generation of the problem from the syllabus content, collaborative and self-directed learning taking place in a learning sequence and where assessment is situated within the context of the problem and the teacher is a facilitator who challenges learners. The role of the learner needs to be defined. Emphasis is on quality rather than quantity of the learning experience.

In their examples of this model Carnell and Lodge listed 'research activities – students identify what they need to know and find sources of information to extend

³¹⁰ E Carnell and C Lodge. *Supporting effective learning*. (2002) 11-12.

³¹¹ E Carnell and C Lodge. *Supporting effective learning*. (2002) 13-17.

³¹² D Laurillard. *Rethinking university teaching: conversational frameworks for the effective use of learning technologies*. 2nd ed. (2002) 67.

their previous knowledge'.³¹³ The teacher is seen as a facilitator with the focus on developing cognitive abilities within the learner's social and emotional frameworks. Important teaching strategies include group and pair work and a range of active stimuli. Learners are encouraged to 'develop their judgement about what is important to know.'³¹⁴ Assessment includes not just knowledge recall exercises but portfolios, interviews and 'other less traditional forms'.³¹⁵ Feedback is critical in this model and encourages and is more 'descriptive' than 'judgemental', helping the learner to do better and add new knowledge.³¹⁶

In the 'co-constructivist model'³¹⁷ the above mentioned processes are taken to new levels. Responsibility for learning shifts from the individual to collaborative learning amongst learners in terms of investigation, analysis, interpretation and reorganisation of knowledge. Problem-solving dialogue between learners with a high level of reflection and group dynamics learning features prominently. Dialogue is less confrontational than debate and helps build a situation. It is particularly important as it enriches experiences through inclusion of numerous opinions. The group helps develop understanding and relationships and helps individuals develop more complex understanding of problems. In this model assessment and feedback often happens within and by the group. Carnell and Lodge stated that although this last model is what seems to be preferred by young people, the dominant mode of instruction is still the reception model.³¹⁸ Laurillard³¹⁹ claimed that the constructivist approach encourages mediated learning where the teacher facilitates, directs and helps change learning over time.

From a different perspective Laurillard notes the phenomenographic methodology,³²⁰ 'in being descriptive of how students experience learning...provides an empirical base that can inform our approach to teaching.' This model emphasises iteration between teacher, learner and content to a greater

³¹³ E Carnell and C Lodge. *Supporting effective learning*. (2002) 13.

³¹⁴ E Carnell and C Lodge. *Supporting effective learning*. (2002) 13.

³¹⁵ E Carnell and C Lodge. *Supporting effective learning*. (2002) 13.

³¹⁶ E Carnell and C Lodge. *Supporting effective learning*. (2002) 13.

³¹⁷ E Carnell and C Lodge. *Supporting effective learning*. (2002) 13-14.

³¹⁸ E Carnell and C Lodge. *Supporting effective learning*. (2002) 17.

³¹⁹ D Laurillard. *Rethinking university teaching: conversational frameworks for the effective use of learning technologies*. 2nd ed. (2002) 74.

³²⁰ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002) 69.

degree than the other models and focuses less on a cause-effect learning process. The problem with university teaching and the lecture method is that it does not enable academics to ascertain how learners learn and handle knowledge. The aim of university teaching is to enable learners to learn and learning must be situated in everyday activities.³²¹ It also involves learning descriptions of the world. Academic learning requires the learner to ‘take a different perspective on those activities, to generalise from them to obtain an abstraction, a description of the world that does not consist in doing the activity alone.’³²²

Learners need to engage in authentic activities that require them to not only engage with their own experiences but those of others as well. The conception learners have of their own learning must be taken cognisance of as much academic learning is about relationships – between theoretical and practical; the way a discipline represents itself in terms of its way of viewing the world; descriptions of the world; and feedback in terms of task goals.³²³ Biggs³²⁴ maintained that in terms of improving teaching, the constructivist model best fits. This will be discussed in the section on teaching theory and practice.

2.3.4. ACTIVE LEARNING

Active learning is not a new concept; Socrates is considered to be the father of active learning.³²⁵ With the literature increasingly referring to the need to incorporate active learning techniques into teaching,³²⁶ it is necessary to define this concept and

³²¹ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002) 13-14.

³²² D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002) 18.

³²³ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002) *ibid* ch 3.

³²⁴ J Biggs. *Teaching for quality at university*. (1999) 12 – 13.

³²⁵ EE Allen. “Active learning and teaching: improving postsecondary library instruction.” (1995) 51/52 *Reference Librarian* 89-103. Kolb’s work on experiential learning reflects active learning: D Kolb. *Experiential learning: experience as the source of learning and development*. (1984). The Socratic method has its critics however as reported in section 2.2.

³²⁶ M Fosmire and A Macklin. “Riding the active learning wave: problem-based learning as a catalyst for creating faculty-librarian instructional partnerships.” (2002) *Issues in science and Technology Librarianship* 10p. <http://www.istl.org/02-spring/articlw2.html>. Accessed: 10.12.2004; AF Ashman and RNF Conway. *An introduction to cognitive education: theory and applications* (1997); DW Tileston. *10 best teaching practices*. (2000); JC Bean. *Engaging ideas: the professor’s guide to integrating writing, critical thinking and active learning in the classroom* (1996); EE Allen. “Active learning and teaching: improving postsecondary library instruction.” (1995) 51/52 *Reference Librarian* 89-103; J Drueke. “Active learning in the university library instruction classroom.” (1992) 10(2) *Research Strategies* 77-83.

understand what it means for teaching IL and legal research in particular. Of the numerous definitions that exist, Silberman³²⁷ has provided a succinct one with explanation that encompasses the complex nature of this seemingly often over simplified concept: 'Active learning is a multi-directional experience in which learning occurs teacher-to-student, student-to-teacher and student-to-student.' Activity based experiences involve input, process and output. Input comes from multiple sources via many senses for example, hearing, seeing; process involves interacting with other people and materials and output involves production of a response, solution or answer or evidence. These multiple experiences take many *shapes* such as working in pairs, groups, individually and so on; and many *forms* such as talking, writing, debating, reading and the like. 'When learning is active students do most of the work.'³²⁸ A holistic approach to active learning³²⁹ includes getting ideas and information (access), experiences (doing and observing) and reflection (on what and how).

Bonwell and Eison³³⁰ have provided some often quoted characteristics of active learning. These include involvement of students beyond simple listening; focus on higher order thinking skills of analysis, synthesis, reflection and evaluation; students engaged in activities, and the self examination process of critical thinking and values clarification. Other characteristics include the student taking more responsibility for learning; the teacher being more of a facilitator; and the employment of a variety of activities that enhance the learning experience rather than just providing variety and stimulation of cognitive processes.

Active learning comprises three interrelated factors: these are skills or activities of reading, writing, listening, talking, reflecting; use of a variety of teaching resources and employment of a range of learning strategies such as group work, games, practical exercises and so on.³³¹ Cognitive and affective domains are given equal emphasis in active learning situations such as thinking activities being taught along

³²⁷ M Silberman. *What is active learning?* <http://www.acu.edu/cte/activelearning/focus.htm>. 2000. Accessed: 3.10.2004.

³²⁸ M Silberman. *Active learning: 101 strategies to teach any subject*. (1996) 1x.

³²⁹ LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses* (2003) 106-110.

³³⁰ C Bomwell and J Eison. *Active learning: creating excitement beyond the classroom*. (1991) 2.

³³¹ C Meyers and T Jones. *Promoting active learning: Strategies for the college classroom*. (1993) 19-21.

with beliefs and values. With IL and legal research, physical skills in the psychomotor domain also needs to be accommodated. Focus is on the quality of the experiences if all aspects of the learning process are to be accommodated.

The formalisation and institutionalisation of education has to some degree led to more passive methods of educational delivery but over time active learning and the growing interest in active learning has resurfaced. Librarians have realised the scope for adopting the active learning approach despite problems of limited teaching time; the one-off nature of many library instruction sessions; the large amount of information needing to be imparted and often having programme requirements dictated by academic staff. As indicated earlier, the various standards that exist for IL evoke an active learning approach.

Gedeon³³² has pointed out the problems of using the active learning approach with large groups. In higher education it is generally acknowledged that useful participation is difficult with large groups because large groups as they are difficult to control and feedback is limited with some students feeling intimidated by the large numbers and therefore unwilling to speak out. One piece of research has revealed that active learning may be counterproductive where students do not understand what active learning is and what the expectations of the lecturer are as regards student learning.³³³

In the field of legal education it is often assumed that because law is a problem-solving profession and a home to the Socratic method (see 2.2.) that active learning is inherent to the study of law, when in fact the passive lecture method still dominates. Active learning is gaining attention in legal education. The work of Boyle is probably most well known in terms of his support of and research into active learning and learning styles in legal education.³³⁴

³³² R Gedeon. "Enhancing a large lecture with active learning." (1997) *Research Strategies* 15 (4) 301-309.
Tyler looks at active learning and learning styles with respect to teaching law students: B Tyler. "Active learning benefits all learning styles: 10 easy ways to improve your teaching today." (2003) 11(3) *Perspectives: Teaching Legal research and Writing*. 106-111.

³³³ M Tait, S van Eeden and M Tait. "An exploratory study of the perceptions of previously disadvantaged first year learners of law regarding university education". (2002) 16(2) *South African Journal of Higher Education* 177-182.

³³⁴ For example: RA Boyle. "Employing active learning techniques and metacognition in law school: shifting energy from professor to student." (2003) 81 *University of Detroit Mercy Law Review* 1-36 reviews the

There is a growing body of literature on cooperative learning although it does not suit all learning styles. Keyser³³⁵ has maintained that cooperative learning is always a form of active learning but that active learning is not always cooperative.

Cooperative learning involves the use of groups whereas groups are only one of the many forms of active learning. Cooperative learning from simple group work should result in consensus from the group.³³⁶ Collaborative learning tasks should not have a single or single right answer but require the group to engage in critical thinking. Collaborative learning works best for learning higher order cognitive skills. Keyser stressed the importance of first determining realistic goals and objectives of lessons and modules as these will inform decisions about the suitability of active learning techniques. She and other authors do not dismiss the lecture method but see it as limiting and suggest short periods of lecture input. Planning is crucial to effective outcomes when applying active learning methods.

Numerous techniques have been suggested as appropriate for encouraging active learning. Silberman³³⁷ for example has published 101 different ways and the above mentioned sources advocate many of them. Popular in the American literature are adaptations of the game show *Jeopardy*,³³⁸ along with card games, quizzes, crosswords and the like. The sources above indicate that the effectiveness of active learning techniques is difficult to measure and some attempts at evaluation have indicated little change in approach by students. What has been indicated however is a positive reaction by students to this approach.

Reflection is critically important in active learning in two respects, firstly in order to make meaning of the experiences, observations and information acquired, and secondly on the actual process of learning.³³⁹ Reflection may be in the form of discussion, written work, and specific reflection assignments. Reading, writing,

problems of teaching in law school, the need for active learning and practical ways of incorporating active learning into the classroom.

³³⁵ MW Keyser. "Active learning and cooperative learning: understanding the differences and using both styles effectively." (2000) 17 *Research Strategies* 36.

³³⁶ D Prorack, T Gottschalk and M Pollastro. "Teaching method and psychological type in bibliographic instruction: effect on student learning and confidence." (1994) 33(4) *RQ* 486. quoting Kenneth Bruffee.

³³⁷ M Silberman. *101 ways to make training active*. (1995).

³³⁸ PR Krajewski and VB Piroli. "Something old, something new, something borrowed, something blue: active learning in the classroom." (2002) 36(1/2) *Journal of Library Administration* 177-194.

³³⁹ LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses*. (2003) 110.

listening, talking, reflecting are the classroom components of active learning.³⁴⁰

Reflection or reflecting is a process of thinking about or thinking through something, a form of mental processing. 'It is often a process of re-organising knowledge and emotional reorientations in order to achieve further insights'³⁴¹ and necessary in problem-solving where answers are not obvious. In the academic environment there is often a conscious outcome or focus or purpose to reflection such as writing or problem-solving which is often assessed.³⁴²

Schon³⁴³ has referred to the need for reflection-in-action and reflection-on-action. In the process of learning, as both 'doing' and 'knowing', often the unknown or surprising occurs in terms of responding to a situation or problem. Responses to this surprise may be to ignore what has happened or reflect on it in order to make sense of the 'why' and 'what' of the occurrence. Reflection-in-action occurs in the middle of the action, whereas reflection-on-action occurs after the event. Reflection-in-action says Schon serves to help question assumptions and strategies and restructure these if necessary in the midst of an activity. Reflection-on-action serves to assess and overview and restructure overall knowing and doing in order to review and if necessary reconstruct knowledge after the activity.

Reflection forms part of some types of learning in the formal education environment. Reflection is more likely with deep than surface processing and is part of the process of making meaning, and richness of learning. Here, reflection allows for assimilation of new material through the reconsideration and reconceptualisation of ideas and prior learning, alters frames of reference and allows for the generation of new ideas. Reflection may occur within an individual or collectively and may occur with varying degrees of intensity and depth.³⁴⁴

³⁴⁰ C Meyers and T Jones. *Promoting active learning : strategies for the college classroom*. (1993) 19-21.

³⁴¹ JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 82.

³⁴² JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 83; 133-149.

³⁴³ DA Schon. *Educating the reflective practitioner*. (1987) 22-36.

³⁴⁴ JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 84-94.

2.3.5. LEARNING STYLES

2.3.5.1. Introduction

Gerdy³⁴⁵ indicated that the phrase ‘learning styles’ was first used in the 1950’s but the idea that people learn in different ways is ages old. Learning styles are considered to be predispositions to learning in particular ways rather than ways in which learners respond to a particular task or teaching method, but the distinctions are often blurred. Those who advocate active learning do so, for amongst other reasons, on the grounds that it accommodates a range of learning styles. Increasingly the literature acknowledges that students learn in a variety of ways and that the passive lecture method suits only a small number of students.³⁴⁶ Attention has and is being paid to learning styles and literally thousands of articles and more than 78 learning styles inventories exist.³⁴⁷ There are numerous definitions of learning styles, many saying similar things. Entwistle and Ramsden, indicated that ‘the general tendency to adopt a particular [learning] strategy is referred to as a learning style’.³⁴⁸ (their underlining).

Vermunt³⁴⁹ defined learning styles as a ‘coherent whole of learning activities that students usually employ, their learning orientation and their mental mode of learning.’ Carnell and Lodge’s definition³⁵⁰ is similar: ‘the way in which the learner prefers to learn, the techniques, strategies and preferred activities.’ Cilliers and Sternberg³⁵¹ (quoting Sternberg) have defined a learning style as ‘the process of obtaining knowledge or skills by means of studying, instruction or experience.’

³⁴⁵ K B Gerdy. “Making the connection: learning style theory and the legal research curriculum.” (2001) 19 (3/4) *Legal Reference Services Quarterly* 71-93.

³⁴⁶ J Bean. *Engaging ideas: the Professor’s guide to integrating writing, critical thinking, and active learning in the classroom.* (1996) 169; E Carnell and C Lodge. *Supporting effective learning* (2002); LB Curzon. *Teaching in further education: an outline of principles and practice* 6th ed. (2004); KB Gerdy. “Teacher, coach, cheerleader and judge: promoting learning through learner-centered assessment.” (2002) 94 (1) *Law Library Journal* 59 -88; DW Tileston. *10 best teaching practices: how brain research, learning styles and standards define teaching competencies.* (2000).

³⁴⁷ F Coffield ...et al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review.* (2004). 12.12.2004.

³⁴⁸ N Entwistle and P Ramsden. *Understanding student learning.* (1983) 26.

³⁴⁹ J Vermunt. “Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis.” (1996) 31 *Higher Education* 25-50.

³⁵⁰ E Carnell and C Lodge. *Supporting effective learning.* (2002) 22.

³⁵¹ CD Cilliers and RJ Sternberg. “Thinking styles: implications for optimizing learning and teaching in university education.” (2001) 15 (1) *South African Journal of Higher Education* 14.

Cronbach and Snow³⁵² argued that style suggests some ‘degree of stability’ midway between ability and strategy.’

A more complex³⁵³ detailed definition of learning styles has been drawn up by the National Association of Secondary School Principals (United States):

the composite of characteristic cognitive affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with and responds to the learning environment. It is demonstrated in that pattern of behaviour and performance by which an individual approaches educational experiences. Its basis lies in the structure of neural organization and personality which both molds and is molded by human development and the learning experiences of home, school, and society.

Learning styles have been described in many ways. Most authors appear to acknowledge the following four broad learning styles or approaches to learning. These are visual, auditory and kinaesthetic and tactile styles.³⁵⁴ The visual learner prefers the written work, the verbal learner prefers lecturing and discussion, the kinaesthetic learner is an active learner who likes to ‘do’ and the tactile learner likes to experience physically where possible, materials, objects and so on. Most authors acknowledge that many learners do not sit firmly in one or other style and may well change styles as circumstances dictate. Learners respond in different ways in different contexts. Learning styles may change over time.

2.3.5.2. Characteristics of learners that affect their learning styles

Dunn and Dunn³⁵⁵ produced a well known model of learning style that took cognisance of a range of stimuli, notably environmental, emotional, sociological, physiological and psychological stimuli. Their research also indicates that factors such as age, gender, academic achievement, culture and processing styles affect learning styles. Other models have considered other factors. Dunn and Dunn³⁵⁶

³⁵² LJ Cronbach and RE Snow. *Aptitudes and instructional methods: a handbook for research on interactions.* (1977) 385.

³⁵³ JW Keefe and BG Ferrell. “Developing a defensible learning styles paradigm.” (1990) 48(2) *Educational Leadership* p. 4. Online. EBSCOHost. Accessed: 3.7.2004.

³⁵⁴ E Carnell and C Lodge. *Supporting effective learning.* (2002) 22; DW Tileston. *10 best teaching practices: how brain research, learning styles, and standards define teaching competencies.* (2000) 13-20; GH Gregory and C Chapman. *Differentiated instructional strategies: one size doesn’t fit all.* (2002) 20-28.

³⁵⁵ R Dunn and SA Griggs. *Practical approaches to using learning styles in higher education.* 14-18.

³⁵⁶ K Dunn and R Dunn. Dispelling outmoded beliefs about student learning.” (1987) 44(6) *Educational*

outline the fallacies usually associated with teaching and learning and indicated that where instruction and the right environmental conditions match learners' learning styles, their ability to learn and performance is enhanced. The Dunns have worked with Robert Boyle (mentioned in 2.3.4) in the law school context where learning style inventories have been applied in classes.³⁵⁷ Kolb and Vermunt³⁵⁸ indicate that learners may have to be encouraged out of unsuitable learning styles.³⁵⁹

In a thought provoking article Kate Manual³⁶⁰ overviewed research undertaken in the United States on key demographics, characteristics and learning style preferences, of what she referred to as the Generation Y group; those born after 1981, into which university students fall. These characteristics need to be taken into account in terms of teaching methods and Manual has undertaken studies of a range of IL classes to assess their responses to traditional and new methods of teaching. Her research focused on the presentation of materials in classes rather than content which is this author's focus with the consideration of which presentation form best suits different situations and learning styles.

The following broad characteristics of Generation Y affect their learning styles. Manual noted that there are obviously exceptions to these generalisations and many are perhaps disputable. University student populations are increasingly ethnically and racially diverse and comprise sophisticated consumers, many of whom work as well as study. Generation Y'ers generally have a positive outlook on life and technology and are increasingly technologically sophisticated. One of their problems is that they often overestimate their technological prowess which can hinder their ability to master IL skills as they equate the two. As a generally positive

Leadership 55-61.

³⁵⁷ RA Boyle. Bringing learning-style instructional strategies to law schools: you be the judge! In: Dunn, R and Griggs, SA. (eds). *Practical approaches to using learning styles in higher education*. Westport, Conn.: Bergin and Garvey (2000) 155-160; RA Boyle. "Employing active-learning techniques and metacognition in law school: shifting energy from professor to student." (2003) 81 *University of Detroit Mercy Law Review* 1-36. Online. Westlaw. Accessed: 6.7.2005.

³⁵⁸ DA Kolb. *Experiential learning: experience as the source of learning and development*. (1984) 30-31; J Vermunt. "The regulation of constructive learning processes." (1998) 68 *British Journal of Educational Psychology* 168.

³⁵⁹ These two reasons for understanding learning styles are supported by Beck who looked particularly at how to match teaching strategies with learning styles: CR Beck. "Matching teaching strategies to learning style preferences." (2001) *The Teacher Educator* 6.

³⁶⁰ K Manuel. "Teaching information literacy to Generation Y." (2002) 36 (1/2) *Journal of Library Administration* 195-217.

group, they are unresponsive to being lectured to and being lectured to on the evils of the Internet in particular. Manual's research showed that students needed to actually do exercises to see the problems associated with Internet use. Generation Y is generally more oriented towards images rather than text as they have grown up with television, video, computers and the like and now mobile phones. Manual found that a significant number of students would not process extensive written instructions and diagrammatic and pictorial presentation was often more effective.

Generation Y'ers need to see the big picture when being introduced to new concepts. They are used to making choices for themselves and thus understandably resent compulsory courses particularly ones that are skills based. They have a low threshold for boredom and short attention spans. They are unwilling to memorise information and prefer education in entertaining packages, showing a preference for being entertained. They are used to multitasking so single task activities like reading and writing an essay are often seen as boring and lacking stimuli that are normally present. Thus there is a need for teachers to vary the tempo and pace of instruction and instruction strategies. They prefer repeated exposure rather than memorisation for learning.

More than anything, they need to 'do'. With this generation opportunities for peer learning are important. In these times when many students come from single parent families, they lack significant regular contact with older persons; their peers being highly influential. This is probably the case with residential students at university. This generation also have got used to getting by with little work on the whole so might well militate against active learning. It would be interesting to establish how true these broad characteristics are for South African students and the reasons for the characteristics along with differences along racial and gender lines, if any. McCrindle³⁶¹ undertook a similar study in Australia and drew similar comparisons.

Everyone has a preferred learning style or styles and there are various categories of learning styles. Some people are comfortable operating within more than one style whilst others do not necessarily show a marked preference for a particular style.

³⁶¹ M McCrindle. *Understanding generation Y*. (2002).
<http://www.learningtolearn.sa.edu.au/Colleagues/files/links/UnderstandingGenY.pdf>. Accessed:10.2.2005.

Gerdy reviewed four levels or layers of learning style theory. The first level is the deepest and reflects personality and is the most stable layer. The second layer assesses how students process information while learning. The third layer is behavioural and focuses on how students interact in learning settings. The fourth layer focuses on instructional preferences and the way students like to be taught. It is with this last layer that learning style theories have been mainly concerned. Not only does understanding of learning styles have implications for learners, but obviously for teachers as well. Whilst there is a need to take cognisance of learning styles it is important to indicate to students that whilst they might operate best in one layer, they are likely to encounter other layers and may have to learn in all layers.

As Generation Y'ers are adults, it is also necessary to note some characteristics of adult learners although it is debatable if these characteristics are present in second year undergraduate students. Adult learners are characterised by being experiential learners; self directed; ready to learn; and operating within a framework of past experience. They also tend to learn best in the context of real world problems. Gerdy claimed 'the key to applying instructional preference learning styles in the classroom is variety.'³⁶² Learning styles have been described in a variety of ways and Gerdy considered the most meaningful categories of instructional preference learning styles as being described as visual, verbal and kinesthetic.³⁶³

Writing in the law school context, Gerdy said that most legal instruction is geared towards the verbal group. Most simply put, in the verbal learning style, learners have a preference for verbally presented information, oral and written work. Aural/verbal learners perform best when information is presented as a lecture or discussion. These students are often the 'talkers' and questioners in the class because they need to 'hear' the material through. These learners often prefer group work as it provides them with the chance to discuss and interact. The visual/verbal learners learn best when information is presented in the form of readings, manuals, lecture notes and the like. Some of these learners learn best by writing about new information. The visual learners are effective learners via flow charts,

³⁶² KB Gerdy. "Making the connection: learning style theory and the legal research curriculum." (2001) 19 (3/4) *Legal Reference Services Quarterly* 77.

³⁶³ KB Gerdy. "Making the connection: learning style theory and the legal research curriculum." (2001) 19 (3/4) *Legal Reference Services Quarterly* 73-93.

transparencies, blackboard use, outlines, notes and so on. Such learners are often frustrated by the lecture method.

The kinesthetic learners prefer learning by activities and hands on work. Such learners often remember what they write down and often need to be on the move, so library practical exercises may appeal. Said Gerdy, legal research instruction is well suited to the kinaesthetic method. Merely passing around books in a class, offering electronic tutorials and using source material can appeal to kinaesthetic learners. Unfortunately, much lecture input caters predominantly for verbal learners who may not however form the majority of a class.

Cohen³⁶⁴ also considered the nature of learning styles and how learning styles might be considered in the teaching of legal research. Research has shown³⁶⁵ that as much as 80% of a class may comprise students who don't learn auditorily but rather visually and kinaesthetically which was borne out by Gerdy's work.

Gerdy had great admiration for the work of David Kolb. Kolb is a well known a psychologist whose famous learning style inventory was developed to test his theory of experiential learning. Over one thousand articles have emanated from researchers who have reviewed and adopted his work.³⁶⁶ Kolb has published widely and his learning styles inventory has been widely used and used as a basis for many other learning style inventories. Gerdy is one of the hundreds of researchers who have reviewed Kolb's work, but her application of it is in the legal instruction setting.³⁶⁷

Kolb's focus³⁶⁸ is on the importance of experience in the learning process. He is concerned with learning as a process where learners work through a cycle of learning, probably several times, for true learning to take place. Effective learners

³⁶⁴ EB Cohen. "Teaching legal research to a diverse student body." (1993) 85 *Law Library Journal* 583-589.

³⁶⁵ Tileston, DW. *10 best teaching practices: how brain research, learning style and standards define teaching competencies*. (2000) 13.

³⁶⁶ KB Gerdy " Making the connection: learning style theory and the legal research curriculum." (2001) 19 (3/4) *Legal Reference Services Quarterly* 60.

³⁶⁷ S Jacobson. "A primer on learning styles: reaching every student." (2001) 25 *Seattle University Law Review* 139-178 is supportive of Kolb's model and his article discusses learning styles and law students; characteristics that affect learning styles and how law teachers may accommodate learning styles.

³⁶⁸ DA Kolb. *Experiential learning: experience as the source of learning and development*. (1984) 25-60.

move around the cycle. True learning combines experience, perception, cognition and behaviour and learners should be encouraged to experience all. The base of Kolb's learning styles is modes of learning. He identifies four learning modes comprising two aspects each namely; perception and processing. Perception comprises feeling (concrete experience) on one side and thinking (abstract conceptualisation) on the other. Processing comprises watching or reflecting (reflective observation) on the one side and doing (active experimentation) on the other. Each learner has preferred modes of perception and processing a particular combination of which, reflects a learning style.

The four major learning styles which Kolb proposed each involve perception and processing. They are:

- the divergent learner who emphasises feeling over thinking. These learners are social and excel in interpersonal relations. They function well with little structure and like to apply skills and receive feedback. Their learning is hindered by reading. Their strength is in their ability to perceive situations from a variety of perspectives and draw appropriate conclusions
- the convergent learner excels in the practical application of ideas and prefers a single correct answer. These learners are task rather than people oriented and perceive information through abstract conceptualisation and process information through reflective observation
- the assimilative learner assimilates multiple observations into an integrated theory or principle. These learners are more concerned with abstract ideas than with people
- the accommodative learner perceives information through concrete experience and processes information through active experimentation. These learners approach problems intuitively through trial and error. However, where theory does not fit the facts, the theory tends to get discounted.

In moving round the cycle of learning learners should pass through all modes, and several times. In the cycle, concrete experience concerns the 'why' of a learning situation. Reflective observation involves the 'what' of a learning situation. Abstract

conceptualisation concerns the 'how' and active experience involves the 'what if' or application to other learning situations.³⁶⁹

The 'why' aspect of learning gives the big picture and how new knowledge will be important to the learner's life. The 'what' aspect of learning involves provision of information, showing how it fits into the big picture. Information dissemination should be provided via a variety of methods. Learners need to think and reflect. The 'how' aspect is where learners apply new knowledge. Learners need a safe environment in which to experiment. According to Gerdy, legal research process and strategy fit nicely into this aspect. Learners need exercises with correct answers. The 'what if' aspect is where learners apply new knowledge to their own lives by solving real life problems. They use new skills to apply to a new problem.

Entwistle³⁷⁰ noted that 'we teach as we prefer to learn' and learning must not be a passive activity but involve a range of activities. Teachers often teach as they prefer to learn and need to be aware of their own learning styles as well as those of their students. Entwistle, like Kolb, also produced a learning styles inventory which has been widely used and his work with learning styles has been widely quoted. For him the challenge is for teachers and learners to re-examine the accepted ways of thinking about the education process. He is one of many who discuss deep versus surface learning. The aim of education should be to encourage deep learning – learning that is 'experienced' by the learner and adopted and adapted into the learner's knowledge and experiences as opposed to surface or superficial and rote learning from which no lasting learning takes place.

The Learning and Skills Research Centre in the United Kingdom, researches and produces reports on a range of educational issues. In 2004 the Centre produced a report on learning styles.³⁷¹ The aim of the report was to critically review the literature on learning styles as well as some of the leading learning style model

³⁶⁹ DA Kolb. *Experiential learning: experience as the source of learning and development*. (1984) 67-69.

³⁷⁰ N Entwistle. *Styles of learning and teaching: an integrated outline of educational psychology for students, teachers and lecturers*. (1981) 4.

³⁷¹ F Coffield ... et al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review*. (2004). <https://www.lseducation.org.uk/user/order.aspx?code=041543&src=xoweb>. Accessed: 12.12.2004.

instruments. They noted some 4000 articles written in the last 30 years on three models alone, and pragmatically acknowledge that:³⁷²

The enormous size of the research literature .. presents very particular problems for practitioners, policy-makers and researchers who are not specialists in the field. It is extremely unlikely that any of these groups will ever read the original papers and so they are dependent on reviews like this one...

The Centre found that much of the current interest in learning styles stems from a desire to help learners and improve teaching interventions. There are also governmental concerns as regards the best policies for developing life long learning in the post 16 group. They noted that attention to learning styles needed to be tempered by a number of factors namely conflicting assumptions about learning, the use of models for different purposes (increasingly for commercial gain), contradictory findings of research, lack of large scale studies, a proliferation of terminology with no standardisation of meaning and use, problems of effectiveness of measurement, problems of reliability and validity, the field of learning styles research is not unified, lack of large scale testing to be able to make valid generalised conclusions, differing interpretations of evidence and the 'prevailing audit culture' which requires targets to be set for performance.

The Centre reviewed thirteen prominent learning style models. Most importantly the Centre noted that :

In sum, all teacher-student interactions in post 16 learning are embedded in structures of power, regulation or control. These mean for instance, that neither teachers or students have the total freedom to choose the teaching or learning strategies which they may wish to adopt. There are also so many constraints on teachers and so many variables affecting learning outcomes that the differences produced through approaches based on learning styles are likely to be rather small.³⁷³

³⁷² F Coffield ...et al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review.* (2004) 2. <https://www.lseducation.org.uk/user/order.aspx?code=041543&src=xoweb>. Accessed: 12.12.2004.

³⁷³ F Coffield...et al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review.* (2004) 14. <https://www.lseducation.org.uk/user/order.aspx?code=041543&src=xoweb>. Accessed: 12.12.2004.

The Centre pointed out in their report that some authors of learning style instruments make glamorous unsubstantiated claims about the effectiveness of their instruments. Throughout the report the Centre indicated the interrelationship of learning styles with motivation, thinking and so on and indicating a lack of research into this interrelationship.

The Centre credits Kolb with leading the modern learning styles movement. Overall, the Centre indicated the usefulness of having a knowledge of learning styles which can:

- increase self-awareness and enables learners and teachers to see and question their long held behaviours
- allow learners to take more control for their learning and increase their self confidence
- consider the whole teaching and learning environment
- allow for a better understanding of learning behaviour
- heighten awareness for teaching styles and possible understanding of student attitudes in the classroom.

Objections to or caution about learning styles centres around:

- stereotyping learners as a result of the use of learning style instruments
- the reliability of results given the often subjective manner in which learners view their abilities and behaviours
- objectivity of test scores
- increasing commercial use of instruments with accompanying broad and unsubstantiated claims about what identification of learning styles achieves
- the danger of learning styles promoting process to the exclusion of content in learning and teaching
- unjustified prominence of learning styles in educational performance given that learning styles are only one of a wide assortment of influences on learning and “in general it can be said that no powerful predictors of learning in higher education have been identified.”³⁷⁴

³⁷⁴ F Coffield...et al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review.*(2004)

2.3.5.3. Learning styles of Vermunt

The Centre has credited Jan Vermunt with a learning styles instrument developed for university students. Vermunt developed his learning styles inventory whilst at the Graduate School of Education at Leiden University. He has focused his research on higher education and trainee teachers with a focus on process-oriented instruction. Vermunt has also produced a learning styles instrument. Vermunt sees the concept 'approach to learning' and learning styles as being synonymous. He defined learning styles as 'a coherent whole of learning activities that students usually employ, their learning orientation and their mental mode of learning.'³⁷⁵ Like Kolb, Vermunt does not see learning styles as fixed. He also believes that the whole learning and teaching environment needs to be considered, learning styles in themselves are inadequate for explaining the differing nature of learning. His definition also takes into consideration motivation, effort and feelings as well as self regulation of learning. Vermunt has established four learning styles which are not mutually exclusive. These are:

- Undirected learning style:

This kind of learner has problems with almost all kinds of learning functions. They cannot distinguish between what is important and what is not; see little relationship between what is being learnt and everyday life; want very specific instructions and constant guidance; have not changed study habits over time; lack self confidence; want the teacher to take responsibility for what, how and when of their learning; cooperation with other students is important.

- Reproduction directed learning style:

This kind of learner spends a lot of time selecting what they think is important to study and use techniques such as underlining and highlighting.

Memorizing is important to such learners and often use quantitative criteria such as how many pages are devoted to a topic to determine its importance. They restrict themselves to indicators from teachers about what is important when learning; external regulation is important; such learners spend a lot of

119-127. <https://www.lsneducation.org.uk/user/order.aspx?code=041543&src=xoweb>. Accessed: 12.12.2004.

³⁷⁵ J Vermunt "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 25-50.

time learning and studying; the most important goal is to pass exams; learning to reproduce and rote learning are key characteristics.

- Meaning directed learning style:

For these learners intrinsic interest plays a large part and they look for meaning; understanding concepts and central ideas are important for learning; finding relationships between between topics and subjects and building on existing knowledge is important. Internal regulation is a feature of such learners and they adapt learning strategies as necessary; they often use an analytic approach to learning; ask questions as they read and feel the teacher should focus on what is not in the book; and see it as their own responsibility to perform.

- Application directed learning style:

These learners are practical by nature and see the point of learning as being able to apply what has been learnt in a future job and realising personal goals; internal and external regulation are both important; they adjust study activities as necessary; like to draw on their own experiences and think about their learning in the context of everyday experiences.

Each style is distinguished by what students do; why they do it; how they feel about it; how they see learning and how they plan and monitor their learning.

Vermunt³⁷⁶ indicates that the application directed learning style probably develops last and that 'many students do not realise constructive self-regulated high quality learning processes.' He also says³⁷⁷ that students need to be encouraged out of undirected and reproduction learning styles and into meaning and application directed styles. There is also a need to move from external regulation to internal regulation as learners realise and take responsibility for constructing their own knowledge.

The reproduction directed learner exhibits characteristics of wanting to reproduce or rote learn what has been learned, (memorisation has a place provided it is not used

³⁷⁶ J Vermunt. "The regulation of constructive learning processes." (1998) 68 *British Journal of Educational Psychology* 166-167.

³⁷⁷ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 47-48.

to replace understanding)³⁷⁸ focusing on tasks at hand in terms of what is important to learn and external cues from instructors are important. Study of material proceeds in a stepwise manner, critical processing is not considered a relevant activity as it is presumed that the instructor knows best. Vermunt claimed that such learners generally consider discussion with others about study material a waste of time. In the reproduction style in particular, the studying approach of learners often does not differ markedly from that of their schooling experience. It is contended that this happens because of the predominantly transmission nature of learning at university, a pattern not dissimilar to that at school so teaching and learning activities are perpetuated at tertiary level. Learners may also be unaware of the expectations of university learning and the different ways of studying different disciplines, thus are not aware of new approaches for learning. Maintaining a particular style may also be a 'safe' option for some learners in terms of feeling secure about what is known.

Vermunt³⁷⁹ indicates that the application directed learning style probably develops last and that 'many students do not realize constructive self-regulated high quality learning processes.' He also says³⁸⁰ that students need to be encouraged out of undirected and reproduction learning styles and into meaning and application directed styles. There is also a need to move from external regulation to internal regulation as learners realize and take responsibility for constructing their own knowledge.

Vermunt³⁸¹ referred to the partitioning of learning by learners so that they develop a sense of 'learning in an educational environment'. Learning and teaching in the formal academic environment has a flavour all of its own. The irony is that one of the purposes of higher education is to develop generic higher order cognitive skills and ways of thinking about the world, competencies needed in the workplace, and a university education is partly seen as preparing one for the workplace. Yet an 'academic education' with context specific knowledge, to the workplace is often

³⁷⁸ J Biggs. *Teaching for quality at university*. (1999) 14.

³⁷⁹ J Vermunt. "The regulation of constructive learning processes." (1998) 68 *British Journal of Educational Psychology* 166-167.

³⁸⁰ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 47-48.

³⁸¹ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 46-47.

seen as less important than these higher order cognitive skills that transcend specific domains which implies that there is a disconnection between university learning and workplace expectations.³⁸²

Although some weaknesses have been identified in the instrument it is in the process of being refined and is considered very favourably by the Centre and recommended for use with university students.³⁸³

2.3.6. SUMMARY

This section has presented a brief overview of the nature and purpose of higher education particularly at undergraduate level, as well as the challenges faced in these formal education settings for the learner and teacher. The ultimate purpose of this education is to help learners how to learn and this requires attention to understanding how learners learn, factors affecting learning and how this knowledge impacts on teaching activities. Definitions of learning have been provided and it is acknowledged that learning is a difficult concept to define. Factors affecting learning as well as some models of learning have been presented as well as a brief overview of research into student learning. One of the challenges facing educators and learners are approaches to learning, namely deep and surface learning. Deep learning is preferable but often the assessment demands in particular of formal education support surface learning. Deep learning is enhanced by active learning activities which presuppose behaviourist and cognitive processes being actively promoted through interaction between learners and 'doing' activities. The constructivist model that advocates active learning was presented. Alongside approaches to learning there is great interest in learning styles. It has been mooted that where teaching and learning activities match learning styles, improved learning happens. Learners may however need to be encouraged to explore different learning styles. Learning theory is of concern to educators because of the need to align teaching and learning activities in order for real learning to take place.

³⁸² J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 27-28.

³⁸³ F Coffield ...et al.. *Learning styles and pedagogy in post-16 learning: a systematic and critical review.* (2004). <https://www.lseducation.org.uk/user/order.aspx?code=041543&src=xoweb>. Accessed: 12.12.2004.

The next section presented below, considers the nature of teaching and the interrelationship between teaching and learning.

2.3.7. TEACHING AND LEARNING

This section serves to review the wide ranging approaches to teaching and the alignment between learning and teaching activities in order to facilitate learning. Modern thinking is being redirected towards learner-centred teaching. Programmes or modules need to be designed to provide a framework of learning objectives and outcomes and appropriate assessment. Much attention has been given to teaching processes that keep learners actively engaged and able to demonstrate understanding.

2.3.7.1. Definitions and characteristics of the teaching-learning process

The goal of teaching can probably be described as facilitating and promoting learning at best and mere imparting of knowledge at worst. Curzon³⁸⁴ provides a quite traditional working definition of teaching :

A system of activities intended to induce learning, comprising the deliberate and methodical creation and control of those conditions in which learning does occur.³⁸⁵

This definition is on the surface quite rigid and teacher-centred, but in an era of standardisation and throughput orientation in formal education, perhaps a reflection of reality. Whilst the goal of teaching is to promote learning, moving from what we know about learning to implications for teaching is not necessarily a logical one.³⁸⁶ This is because 'the character of student learning is elusive, dependent on former experiences of the world and of education, and on the nature of the current teaching situation'.³⁸⁷ This relationship 'will not transfer exactly to the different context of a new teaching strategy.'³⁸⁸ Whilst the elements of teacher, learner, teaching context, prior knowledge and learning outcomes form the basis of any teaching-learning model, the nature of each of these elements differs from one situation to another.³⁸⁹

³⁸⁴ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004).

³⁸⁵ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 22.

³⁸⁶ D Laurillard . *Rethinking university teaching*. 2nd ed. (2002) 62.

³⁸⁷ D Laurillard . *Rethinking university teaching*. 2nd ed. (2002) 62.

³⁸⁸ D Laurillard . *Rethinking university teaching*. 2nd ed. (2002) 62.

³⁸⁹ J Biggs. *Teaching for quality at university*. (1999) 18-19.

Curzon, in his definition emphasised the word 'system' as he believed that no single activity is sufficient for all situations or for all subjects. He also identified with those schools of thought that support formal education. He has supported the view that some sort of control is always necessary in teaching. He pointed out that control does not mean inducing passive learning or being authoritarian or negating active learning in the classroom. He defined control in the teaching context as meaning:

systematic efforts to set performance standards and deciding on methods of assessing the learners' performance with those predetermined standards.³⁹⁰

Control for him meant providing *direction* to reach a particular end or goal. Controls are measurements or the means to the end, whereas control itself is the direction to achieve the end. For control to be positive and productive there needs to be learning objectives. Learning objectives involve steps to be undertaken in achieving predetermined outcomes – outcomes in terms of student learning; structuring of tasks; and devising and implementing appropriate assessment methods in relation to outcomes. Outcomes can be both general and specific, need to describe what students will be *doing*, identify desired behaviours and under what conditions these behaviours will occur as well as criteria for acceptable behaviour.

Curzon identified four steps for effective control to take place:

- setting standards and deciding on methods of assessment
- measuring standards and assessing significance of results through a feedback process
- deciding on the acceptability of performances
- taking appropriate action to change behaviours when necessary.³⁹¹

Curzon warned that learning objectives must not only focus on inputs and outputs but the process that bridges the two. The challenge of designing learning experiences is the central substance of the study of teaching. Reigeluth³⁹² would argue that this definition and approach reflects the current trend in educational

³⁹⁰ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 144.

³⁹¹ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 144.

³⁹² C Reigeluth. What is instructional-design theory and how is it changing? In: C Reigeluth. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 5-30.

thinking towards standardisation³⁹³ when the need is for educational systems that focus on customisation or a learner- focused approach that takes cognisance of the fact that all learners learn at different paces and in different ways. Reigeluth argues that the focus on learning needs to be to develop creativity and initiative in learners via appropriate learning and teaching activities.

Four standard aspects to the teaching cum learning environment have been advocated by some: the learner, the teacher, the setting and the curriculum.³⁹⁴ For teaching and learning to be effective they indicate that there must be systematic identification of 'what is to be learned, how it will be taught, and how learning will be measured', and that these must be clear and understood by learners and teachers.³⁹⁵

The teaching / learning process involves a number of factors:

- there needs to be a learner
- there needs to be learning objectives which are related to desired behavioural changes
- there needs to be a teacher who selects and organizes instructional methods, plans lessons and sets objectives
- there needs to be a sequence of stimuli-response situations which are persistent and observable in order for changes in learners' behaviour to occur
- there needs to be reinforcement of behaviour
- there needs to be monitoring, assessment and evaluation of learners changes in behaviours.³⁹⁶

The above process suggests a quite regimented approach to the process. As important to effective teaching and learning as control or direction, is communication. Curzon reviewed models of communication and indicated that at its simplest, communication involves an information source, a message and a receiver.

³⁹³ C Reigeluth. What is instructional-design theory and how is it changing? In: C Reigeluth. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 17-18.

³⁹⁴ AF Ashman and RNF Conway. *An introduction to cognitive psychology: theory and applications*. (1997) 2-8.

³⁹⁵ AF Ashman and RNF Conway. *An introduction to cognitive psychology: theory and applications*. (1997) 8.

³⁹⁶ LB Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 10-11.

The message is encoded, there are different transmission channels for the message; the message is received and decoded. Gagne³⁹⁷ favours the information processing model as reflecting learning where the process involves commitment to short term and long term memory; constant retrieval from long term memory and re-encoding and so on. Effective communication is distorted by noise or interferences and environment.³⁹⁸

Curzon also noted Vygotsky's notion that language on its own is insufficient as a means of communication and non-verbal signals, particularly in the classroom, are very important.³⁹⁹ Vygotsky indicated that the primary function of speech is to communicate and that it is impossible for there to be understanding between minds unless there is some form of expressing thought, hence language, gesture and so on. Real communication requires real meaning and generalisation of meaning if that meaning is to be understood between persons. Generalisation of meaning does not always equate with full understanding. Thus language is a necessary, but not necessarily a sufficient tool for communication.⁴⁰⁰

Three 'levels' of thinking about teaching have been highlighted:⁴⁰¹

- in the first level the teacher provides information and it is up to the learners to internalise it and be motivated etc. Teaching is largely of the transmission mode. If the students have problems it is their fault, a deficit model of teaching.
- in the second level the teacher's role is to move beyond presentation of information to include concepts and principles. Here the focus is on what the teacher is doing rather than what the student is. To do this the teacher needs certain competencies and skills and variety of teaching techniques are employed. If the students have problems it is the teacher's fault, again a deficit model.

³⁹⁷ RM Gagne. *The conditions of learning*. 4th ed. (1985) Chapter 4.

³⁹⁸ LB Curzon. *Teaching in further education: an outline of principles and practice*. 6th ed. (2004) 125-139.

³⁹⁹ LB Curzon. *Teaching in further education: an outline of principles and practice*. 6th ed. (2004) 126; LS Vygotsky. *Thought and language*. (1962) 6-7.

⁴⁰⁰ LS Vygotsky. *Thought and language*. (1962) 6-7.

⁴⁰¹ J Biggs. *Teaching for quality at university*. (1999) 20-25; Fry, H., Ketteridge, S and Marshall, S. A *handbook for teaching and learning in higher education: enhancing academic practice*. (1999) 210-211.

- in level three, what the learner does is the focus and the teacher's role is to encourage appropriate learning activities. In this level teachers are concerned with what is meant by understanding and how to enable students to understand. What the student does is what is important.

Fink's equivalent of the third level is one where the teacher provides foundational knowledge but also develops its application and integration with other subject matter, helps learners how to learn and supports a human dimension to the process in terms of motivation, working with others and so on.⁴⁰²

2.3.7.2. Models of teaching

Although the term 'models' appears to be used rather loosely, there are many formalised models. This author is more concerned with the components that need to be considered in order to design programmes, but it is useful to understand the range of thinking behind formalised models. Joyce, Calhoun and Hopkins⁴⁰³ in a survey of schools in the United States, and a survey of research, found an abundance of models of teaching. They have grouped these models into four 'families.'

- The first is the information processing family of models. These models they claim, focus on intellectual capability and the construction of knowledge. These models help students with learning strategies to use in 'gathering, organising, summarising, and applying this information, forming and testing hypotheses, making generalisations, and developing concepts that define the content of disciplines'.⁴⁰⁴
- The second family of models, the social family of models, focuses on interactions with others and how to use the perspectives of others to develop their own understanding. Students practice the complex processes of gathering and using information and these models make use of intensive listening skills, and problem-solving technique is influential.
- The personal family of models pays close attention to the individual and encourages independence and self awareness. Focus is on individuality.

⁴⁰² LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses*. (2003) 36-59.

⁴⁰³ B Joyce, E Calhoun and D Hopkins. *Models of learning – tools for teaching*. 2nd ed. (2002).

⁴⁰⁴ B Joyce, E Calhoun and D Hopkins. *Models of learning – tools for teaching*. 2nd ed. (2002). 30-35.

- The fourth family of models is called the behavioural systems family of models. This family has as its base social learning theory. They claim that the range of models used to design learning experiences are based on certain theses:
- there is in existence a extensive range of alternative approaches to teaching (different models produce different outcomes)
- methods do make a difference as regards what is learned as well as how something is learned (different methods support or negate particular outcomes)
- students are a significant part of the learning experience and each student reacts differently to any particular teaching method (it is thus important to be aware of the different learning styles, individual aptitudes and skills within a class).⁴⁰⁵

As indicated earlier, the model of the process by Ashman and Conway⁴⁰⁶ reflects a different approach to, and a different way of describing teaching models. Their model, called the Assessment, Preparation, Instruction and Evaluation model comprises four components they claim should be present in any teaching context. Entwistle and Smith⁴⁰⁷ have devised a conceptual model of the teaching learning process. From the learning point of view, student characteristics that influence approaches to learning include personality, learning styles, prior knowledge and intellectual capacities. Students' approaches to studying are affected by motivation, attitudes, work habits and study skills. From the teaching side, aspects of the teaching / learning environment that affect learning outcomes include delivery method, pace, structure, clarity, enthusiasm, empathy, content, assessment procedures, feedback, workload, library provision, study skills support and departmental ethos and characteristics. Perceptions of meaning, relevance and tasks depend on environment as well as student characteristics and students respond differentially to the same context.

⁴⁰⁵ B Joyce, E Calhoun and D Hopkins. *Models of learning – tools for teaching*. 2nd ed. (2002) 11-12.

⁴⁰⁶ AF Ashman and RNF Conway. *An introduction to cognitive psychology: theory and applications*. (1997).

⁴⁰⁷ N Entwistle and C Smith. "Personal understanding and target understanding: mapping influences on the outcomes of learning." (2002) 72 *British Journal of Educational Psychology* 327-328; see also LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses*. (2003) 60-74.

Gagne⁴⁰⁸ supports the information processing model and says that learners are placed in learning situations in order to change performance. Performance does not necessarily signal a change in learning. A change in performance needs to be demonstrated.⁴⁰⁹ According to Gagne internal and external conditions are necessary for learning. Internal conditions are those previously learned capabilities and external conditions are the 'stimulus situation' outside the learner.⁴¹⁰ Gagne believes his model reflects how learning takes place and subsequently how teaching should be designed. Gagne indicates that instructional design must concern itself firstly with learning outcomes or capabilities or performances. There are five of these performances according to Gagne:⁴¹¹

- intellectual skills – procedural knowledge or 'knowing how'
- verbal information – declarative knowledge
- cognitive strategies – thinking, analysing, problem -solving
- motor skills – doing acts
- attitudes – choices rather than specific performances.

Different learning outcomes require differential instruction. Instructional events with particular activities are used to support learning. Instructional events that accommodate the internal and external processes associated with learning need to then be designed. The instructional events include gaining attention; clarifying objectives; provoking recall or prior learning; providing content; structure of content; eliciting performance; feedback; assessment and reinforcement and generalisation or transfer. Gagne's approach does not reflect relationships or interactions between these events or activities related with making these events happen.

2.3.7.3. Teaching strategies

A teaching strategy is designed to form 'the bridge between what we know about student learning and what we should therefore do as teachers.'⁴¹² Teaching strategies have to address a number of things:

- 'three aspects of the content of student's learning experience:

⁴⁰⁸ R Gagne. *The conditions of learning*. 4th ed. (1985) Chapter 4.

⁴⁰⁹ J Biggs supports this: J Biggs. *Teaching for quality at university*. (1999) 35-42.

⁴¹⁰ R Gagne. *The conditions of learning*. 4th ed. (1985) 16-17.

⁴¹¹ R Gagne. *The conditions of learning*. 4th ed. (1985) 47-48.

⁴¹² D Laurillard. *Rethinking university teaching*. 2nd ed. (2002) 62.

- conceptions of the topic
- representational skills
- epistemological development.⁴¹³
- subject matter content
- assisting students in the process of learning:
 - finding meaning in the structure of academic discourse
 - interpreting forms of representation such as language of the discipline
 - usage of the knowledge gained
 - feedback and reflection.⁴¹⁴

Biggs's⁴¹⁵ approach is not dissimilar to the above. For him the context that is established is at the core of teaching. This context comprises the curriculum, teaching methods, assessment procedures and feedback, nature of the interactions between learners and teachers and the institutional factors such as rules. His model of teaching and learning takes cognisance of three sets of factors, namely the factors that present themselves at the outset, the process and the product. Factors at the outset include the teaching context as regards objectives, assessment, institutional procedures and so on and the learner's prior knowledge, motivation and capabilities (including learning styles and individual characteristics). The process concerns itself with 'learning focused activities'⁴¹⁶ which encourage/discourage deep and surface learning. Learning outcomes are the product. These three aspects are interactive.

Biggs quoted Shuell as saying that the crux of the matter is that:

If students are to learn *desired outcomes*; in a *reasonably effective manner*, then the teacher's fundamental task is to get students to *engage in learning activities* that are likely to result in their achieving these outcomes.⁴¹⁷

⁴¹³ D Laurillard. *Rethinking university teaching*. 2nd ed. (2002) 62.

⁴¹⁴ D Laurillard. *Rethinking university teaching*. 2nd ed. (2002) chapters 2, 3, 4.; Best, Abbot and Taylor. *Teaching skills for learning*. (1990).

⁴¹⁵ J Biggs. *Teaching for quality at university*. (1999) 25- 26.

⁴¹⁶ J Biggs. *Teaching for quality at university*. (1999) 18.

⁴¹⁷ J Biggs. *Teaching for quality at university*. (1999) 25.

According to Biggs, the desired outcomes clarify objectives. Assessment needs to be aligned to the objectives in order for them to be learned in a reasonably effective manner, and if students are engaged in the activities, teaching is effective. All of these aspects are intertwined. All components need to be aligned for effective learning to take place. Alignment is the key.

Biggs indicated that curriculum objectives are central to a teaching / learning strategy. Objectives are expressed 'in terms of what constructive activities are most likely to achieve the desired outcomes for the topic or unit in question...activities are verbs.'⁴¹⁸ These verbs relate to the content. Then levels of understanding for each objective need to be determined. These levels must correspond with the grading system used. Once objectives are established, teaching / learning activities or teaching methods must be designed that encourage the students to act upon the objectives. Assessment tasks must indicate whether students have met the criteria laid out in the objectives.

Hardman and Ng'ambi reported on the abundance of literature that deals with scaffolding as a teaching intervention to help learners access learning.⁴¹⁹ The 'father' of the constructivist approach and scaffolding, Vygotsky, advocated scaffolding in terms of assisting learners to move from the point of what they know to where they are expected to be.⁴²⁰ One scaffolding' website provides some useful articles on scaffolding as a teaching strategy in terms of theory including Vygotsky's contribution; how it works and why it is a useful strategy.⁴²¹

Little appears to have been published in the library literature on scaffolding within IL specifically although it is perhaps implicit in terms of the development of standards,

⁴¹⁸ J Biggs. *Teaching for quality at university*. (1999) 28.

⁴¹⁹ J Hardman and D Ng'ambi. "A questioning environment for scaffolding learners' questioning engagement with academic text: a university case study." (2003) 17(2) *South African Journal of Higher Education* 139-145; T Greening considers scaffolding in terms of problem based learning: *Scaffolding for success in problem-based learning*. (1998). ¾ Med Educ Online 1-15. www.med-ed-online.org/f0000012.htm. Accessed: 8.5.2005; JGJ van Merriënboer and F Paas. Powerful learning and the many faces of instructional design: toward a framework for the design of powerful learning environments. In: De Corte, E ... et al. *Powerful learning environments: unravelling basic components and dimensions* . (2003) 14-15.

⁴²⁰ L Dixon-Krauss. *Vygotsky in the classroom: mediated literacy instruction and assessment*. (1996).

⁴²¹ *Scaffolding website*. <http://condor.admin.cuny.cuny.edu/>, from this website: L Henry. *Educational concept of scaffolding: adolescent learning and development*. (2002) and RR Van Der Stuyf. *Scaffolding as a teaching strategy*. (2002). Accessed 25.7.2005.

outcomes and assessment. Bordonaro and Richardson⁴²² reviewed the success of a scaffolded approach in a case study. Work with the LRWR module in 2005 indicated that a major problem was a lack of scaffolding particularly in terms of implementation of knowledge gained. Whilst students could often ‘talk the talk’, practical work reflected inability to apply knowledge from class in a meaningful way in practice without a lot of extra help. A more scaffolded approach would have probably helped and this aspect has and is being developed.

From a practical point of view, there is an abundance of ‘how to’ literature on a range of aspects to do with actual nitty gritty classroom teaching. Whether these are appropriate will depend on objectives, assessments and constraints. Useful examples that have been selected relate to the theoretical and practical background.⁴²³ These show different methods such as using problems and case studies. A book by Gregory and Chapman⁴²⁴ usefully provides instructional strategies for diverse classrooms with particular reference to Kolb’s learning styles, as well as assessment.

2.3.7.4. Understanding and curriculum objectives in teaching strategy

Biggs noted that defining understanding is vital in the setting of objectives and alignment of teaching and learning. He explained that:

although students have excellent ideas about what understanding means in real life, in practice understanding becomes whatever they see will meet assessment requirements....learning tends to become institutionalised.⁴²⁵

⁴²² K Bordonaro and G Richardson. (2004) 30(5) *The Journal of Academic Librarianship* 391-401. See also LD Kamhi-Stein and AP Stein. “Teaching information competency as a third language.” (1998) 38(2) *Reference and User Services Quarterly* 173-178.

⁴²³ G Gibbs and A Jenkins. *Teaching large classes in higher education: how to maintain quality with reduced resources*. (1992); BPM Creemer. *The effective classroom*. (1994); P Gardener. *Strategies and resources for teaching and learning in inclusive classrooms*. (2002); C Kyriacou. *Essential teaching skills*. 2nd ed. (1998); G Gradowski...et al. *Designs for active learning: a sourcebook of classroom strategies for information education*. (1998); DW Tileston. *10 best teaching practices: how brain research, learning styles and standards define teaching competencies*..(2000); JC Bean. *Engaging ideas: the professor’s guide to integrating writing, critical thinking ,and active learning in the classroom* (1996); M Silberman. *101 ways to make training active* .(1995); R Johnstone and G Joughin. *Designing print materials for flexible learning and teaching in law*. (1997).

⁴²⁴ GH Gregory and C Chapman. *Differentiated instructional strategies: one size doesn’t fit all*. (2002).

⁴²⁵ J Biggs. *Teaching for quality at university*. (1999) 35.

Entwistle and Smith⁴²⁶ discussed a review of the literature that distinguishes between personal understanding and target understanding. Target understanding is that which the teacher requires in terms of the syllabus, interpreted from their perspective. Personal understanding is what the student thinks the teacher wants, influenced also by experiences and people outside the classroom and beliefs and attitudes. Thus there can well be a mismatch of expectations about what product of understanding is required. Real understanding is *performative* not declarative and often develops over time. Knowledge does not automatically lead to understanding.⁴²⁷ Perkins and Unger defined understanding as:

a matter of being able to think and act creatively and competently with what one knows about the topic....learning for understanding becomes a progressive process of attempting more and more challenging understanding performances, gradually expanding the flexible performance capability of the learner.⁴²⁸

Learning aims to expand knowledge quantitatively, but also deepen knowledge which is the qualitative dimension. The purpose of understanding is knowledge according to Biggs and there are various kinds of knowledge: declarative and functioning. Declarative knowledge is in the public domain. Functioning knowledge is putting declarative knowledge to work to solve problems which also involves knowing when to do things (procedural knowledge) and why and under what conditions (conditional knowledge). Declarative knowledge together with procedural knowledge leads to conditional and thus to functional knowledge. Implications for teaching are that learners need to be helped to link the different domains of knowledge and be able to show their understanding by engaging with new tasks; reflecting on the task, and receiving feedback to see how they can improve. They need to be able to apply these kinds of knowledge in real life situations. Problem - solving learning is suitable for this purpose. 'Graduates need to face new problems and interact with them, not only competently, but thoughtfully.'⁴²⁹

⁴²⁶ N Entwistle and C Smith. "Personal understanding and target understanding: mapping influences on the outcomes of learning." (2002) 72 *British Journal of Educational Psychology* 332-334.

⁴²⁷ DN Perkins and C Unger. Teaching and learning for understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) 96.

⁴²⁸ DN Perkins and C Unger. Teaching and learning for understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) 97.

⁴²⁹ DN Perkins and C Unger. Teaching and learning for understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory* (1999) 36.

De Corte⁴³⁰ briefly reviewed what he considered to be the contested nature of the understanding of the potential to transfer of skills and knowledge in research.

Opinions have ranged from:

- the non transferability of skills and knowledge because these are context bound
- the degree of transferability is dependent upon similarity of other situations
- those who advocate the direct transferability are ignoring the context and social nature of situations and the fact that knowledge and skills are constructed within particular frames of reference
- transferability depends upon general intellectual or metacognitive skills
- transfer depends on 'preparation for future learning' in the teaching cum learning situation.

Perkins and Unger⁴³¹ propose a four part framework for designing and implementing instruction re understanding which they say reflects a constructivist approach. The elements of the framework are the use of generative topics; understanding goals (what it is that needs to be understood); understanding performances (activities that will elicit and develop understanding in learners); and ongoing assessment which is formative as well as summative. Whilst authors like Entwistle and Smith concur with respect to a focus on understanding they are critical of constructivism as a theoretical framework saying it is 'too diffuse a set of ideas to provide a coherent, integrative framework' and also that it's focus is too much on constructing knowledge and not enough on methods.⁴³²

A 'teaching for understanding' approach has been evolving in recent times.⁴³³ This approach focuses explicitly on setting understanding goals and associated understanding performances. Students are involved in this. This approach stresses

⁴³⁰ E De Corte. Designing learning environments that foster the productive use of acquired knowledge and skills. In: De Corte, E . . . et al. *Powerful learning environments: unravelling basic components and dimensions*. (2003) 22-25.

⁴³¹ DN Perkins and C Unger. Teaching and learning for understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2,98.

⁴³² N Entwistle and C Smith. "Personal understanding and target understanding: mapping influences on the outcomes of learning." (2002) 72 *British Journal of Educational Psychology* 324.

⁴³³ HE Gardner. Multiple approaches to understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory* (1999) Vol 2, 76-77.

the use of 'generative topics.'⁴³⁴ Generative topics allow for depth rather than breadth of coverage and are topics that are central to the discipline they serve; are interesting and accessible so that students can adequately engage with the topic and are interesting to the teacher. Good generative topics connect 'diverse themes within and beyond the discipline in question'; are relevant to students' lives and have a 'bottomless' character so they can be explored endlessly in different ways.⁴³⁵ A generative topic can serve to indicate multiple layers to a seemingly simple and innocuous topic. Perkins and Unger⁴³⁶ point out that the use of generative topics can inhibit the understanding of goals so these need to be carefully thought through and be few in number. Understanding performances, they claim, often commence with fairly unsystematic work on a topic which gradually becomes more organised and systematic ending up as a project type of performance represented in various ways. Learners may work in groups, pairs or alone. Understanding performances must:

- relate directly to the understanding goals
- advance through a sequence or variety of activities reflecting a gradation of understanding
- allow for different learning styles and forms of expression
- should encourage thinking and doing and reflection
- learners need to be able to stand back and see what they have done in order to assess it.

Perkins and Unger⁴³⁷ stress the importance of continuous assessment. They view feedback as one of the most important aspects of learning.

2.3.7.5. Constructivist learning and its relationship to teaching

Mention has been made of constructivist approaches throughout this chapter. The literature on the constructivist theory of learning is large and there is no consensus about its definition or character. Windschitl⁴³⁸ maintains that one of its

⁴³⁴ HE Gardner. Multiple approaches to understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory* (1999) Vol 2,77.

⁴³⁵ DN Perkins and C Unger. Teaching and learning for understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory* (1999) Vol 2, 100-101.

⁴³⁶ DN Perkins and C Unger. Teaching and learning for understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory* (1999) Vol 2, 102.

⁴³⁷ DN Perkins and C Unger. Teaching and learning for understanding. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory* (1999) Vol 2, 106-108.

⁴³⁸ M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the

characteristics, student-centredness, is hardly a new concept but constructivist theory take a particular approach. He also claims that it is difficult to refer to constructivist teaching approaches as all pedagogy requires learners to construct knowledge in some manner.

It is perhaps simpler to indicate the commonly accepted characteristics of constructivist learning rather than negotiate the many forms and interpretations. The premise of constructivist learning is that individuals construct their own knowledge which may be mediated by their social environment. Learning and meaning is constructed in particular situations. The extent to which learners construct knowledge and indeed meaning, is affected by their personal characteristics, prior learning and experience, frames of reference and environment as well as instruction.

In terms of instruction, learning must be active, situated in authentic tasks, usually problem based, interactive and includes reflection. The teacher acts as facilitator or coach and takes cognisance of the multiple perspectives and ways of learning that students bring to any formal learning situation. Learners take at least some responsibility for their learning. Learning is scaffolded and focuses on helping learners understand. Teaching to accommodate learners in the constructivist paradigm assumes multiple teaching and learning activities and assessment and formative assessment is important. Assessment, learning and teaching activities are aligned.⁴³⁹

conceptual, pedagogical, cultural and political challenges facing teachers.” (2002) 72(2) *Review of Educational Research* 135-136.

⁴³⁹ JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 18-30; H Fry, S Ketteridge, and S Marshall, *A handbook for teaching and learning in higher education: enhancing academic practice*. (1999) 22-23; J Biggs. *Teaching for quality at university*. (1999) 13;24-31; D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 67-68; M Windschitl. “Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural and political challenges facing teachers.” (2002) 72(2) *Review of Educational Research* 131-175; L Magadla. “Constructivism: a practitioner’s perspective.” (1996) 10(1) *South African Journal of Higher Education* 83-88; DC Phillips. “The good, the bad, and the ugly: the many faces of constructivism.” (1995) 24(7) *Educational Researcher* 5-12; E Venter. “A constructivist approach to learning and teaching.” (2001) 15(2) *South African Journal on Higher Education* 86-92; SE Cooperstein. “Beyond active learning: a constructivist approach to learning.” (2004) 32(2) *Reference Services Review* 141-149.

Windschitl⁴⁴⁰ indicates that in the formal higher education setting constructivism needs to be played out pragmatically. Learners cannot entirely determine what they study and how; lecture input is likely to be necessary and partial construction of meaning may well have to do. Activities must be undertaken within an intellectual framework and rigorous assessment is needed. Teachers may need a broader subject understanding than usual to accommodate the various, often unexpected constructions of knowledge of learners. Learners need to be trained in how to manage group work. In the constructivist classroom the following are likely to be found:⁴⁴¹

- clear conceptual goals and an understanding of the activities needed to help learners progress towards these goals
- acknowledgement of prior learning and awareness of the diversity of learners
- teaching and learning activities that facilitate and challenge access to new ideas
- provision of situations for learners to apply knowledge to a range of new situations
- a cooperative and engaged classroom environment
- teachers draw ideas and information out of learners around particular topics and then provide learning scenarios for these ideas to be developed
- learners engage in problem-solving activities and are involved in constructing arguments based on evidence, as well as explaining, predicting and interpreting
- teachers make explicit their own thinking processes and learners are encouraged to do the same through various forms of representation, as well as reflect
- learners are provided with information resources and tools for learning
- teachers employ a variety of assessment activities.

⁴⁴⁰ M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural and political challenges facing teachers." (2002) 72(2) *Review of Educational Research* 137-148.

⁴⁴¹ M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural and political challenges facing teachers." (2002) 72(2) *Review of Educational Research* 137-140.

2.3.7.6. Instructional design

Reigeluth⁴⁴² and others consider instructional design theory to be a theory that 'offers explicit guidance on how to better help people learn and develop'.⁴⁴³

Instructional design theory is *design* oriented. It is concerned with the means to achieve given goals for learning; it identifies *methods* of instruction and the *situations* in which these methods should or should not be used. Each method can have more detailed components. He provided the example of the provision of clear information as comprising components such as identification of goals; giving examples; demonstration; linking new concepts to old and so on.⁴⁴⁴ Design theories differ from other theories in that rather than being descriptive, they are prescriptive in the sense that guidelines are offered about what methods are best for given situations. Design theories cater for the practitioner. Said Reigeluth,⁴⁴⁵ what is important is establishing which method is preferable.

Any instructional situation ('those aspects of the context that influence selection of methods'⁴⁴⁶) has two aspects:

- the first is instructional conditions – the conditions under which instruction takes place and desired outcomes – which comprise the character of what needs to be learned; the character of the learner; the character of the learning environment and constraints
- the second aspect is desired instructional outcomes. These are not the same as learning goals but refer to levels of efficiency and effectiveness and enjoyment of the learners. There may have to be trade-offs between these three levels as well as the outcomes. Methods may be made up of components, executable in different ways and may stipulate criteria to be met. Methods 'do not guarantee the desired instructional and learning

⁴⁴² CM Reigeluth. *Instructional-design theories and models: a new paradigm of instructional theory* (1999). Vol 2.

⁴⁴³ CM Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol. 2, 5; R Donnelly and M Fitzmaurice. Designing modules for learning. In: O'Neill, G, Moore, S and McMullin, B. *Emerging issues in the practice of university learning and teaching*. (2005) 99-110.

⁴⁴⁴ CM Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol. 2, 6.

⁴⁴⁵ CM Reigeluth and TW Fick. Formative research: a methodology for creating and improving design theories. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol. 2, 634-636.

⁴⁴⁶ CM Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol. 2, 8.

outcomes. They only increase the probability that the desired results will occur.⁴⁴⁷

Van Merriënboer and Paas argued for specific considerations for the design of powerful learning environments.⁴⁴⁸ Such design needs to consider the fact that:

- all learners learn in different ways
- learning goals must be integrated – to allow for application to new situations
- instruction must be aligned with ‘human cognitive architecture’ – take cognisance of the capacity of working memory, when and how information is delivered and how much
- incorporate scaffolding and reinforcement.

This is very much a reflection of the constructivist and active learning approach to instructional situations.

Wiggins and McTighe⁴⁴⁹ proposed ‘backward’ design – starting with identifying what the desired outcomes or understandings and performances are; then establishing what constitutes acceptable evidence (assessment) of these outcomes and then finally planning the learning experiences and instruction. Appropriate instructional activities include identifying ‘enabling knowledge – facts, concepts, principles – and skills – processes, procedures, strategies’⁴⁵⁰ that students will need to perform effectively; what materials and resources are required and what kinds of activities are needed to equip students with the above and what form should teaching take such as coaching. The process of how the learning unfolds and develops is largely in the hands of the teacher. Wiggins and McTighe⁴⁵¹ have indicated that at all times learners need to be able to identify why they are being asked to do something, what

⁴⁴⁷ CM Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM.

Instructional-design theories and models: a new paradigm of instructional theory. (1999) Vol. 2, 11.

⁴⁴⁸ Van Merriënboer, JGJ and F Paas. Powerful learning and the many faces of instructional design: toward a framework for the design of powerful learning environments. In: De Corte, E ...et al. *Powerful learning environments: unravelling basic components and dimensions.* (2003) 3-17.

⁴⁴⁹ G Wiggins and J McTighe. *Understanding by design.* 2nd ed. (1998) 7-29.

⁴⁵⁰ G Wiggins and J McTighe. *Understanding by design.* 2nd ed. (1998) 18-19.

⁴⁵¹ G Wiggins and J McTighe. *Understanding by design.* 2nd ed. (1998) 16-17. Some practical examples of instructional design have been presented by Fry and Fink: H Fry, S Ketteridge and S Marshall. *A handbook for teaching and learning in higher education: enhancing academic practice.* (1999) 43-57; LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses.* (2003) Chapters 3-5.

it will help them to accomplish, how what they are doing fits in with what they previously did and how they are able to show what they have learned.

The instructional design model of Jonassen was adopted for the Legal Research Writing and Reasoning module.⁴⁵² Jonassen's model for a constructivist learning environment proposes:

- an ill-structured problem where the problem drives the learning and learners learn domain knowledge in order to resolve the problem
- problems must be relevant, authentic, engaging and such that there are multiple possible solutions, uncertainty about which rules, principles and concepts are relevant for the solution; offer no general rules for predicting the outcome
- learners need to build, argue and defend an answer to the problem
- sufficient background information needs to be made available so the problem can be understood and then appropriate materials provided at relevant intervals
- learners need to learn how to develop argument
- learners need to be perturbed
- there needs to be a high level of scaffolding
- there needs to be reflection
- collaboration amongst learners is encouraged
- the teacher acts as coach and the idea is to perturb the learner largely through provocative questions
- alternative assessment, varied assessment and appropriate assessment needs to be implemented.

This author could only find one instance in the literature of the application of Jonassen's model to IL.⁴⁵³

⁴⁵² D Jonassen. Designing constructivist learning environments. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 215-240.

⁴⁵³ AS Macklin. "Theory into practice: applying David Jonassen's work in instructional design to instruction programs in academic libraries." (2003) 64(6) *College and Research Libraries* 494-500.

2.3.8. LEARNING, TEACHING AND LAW STUDENTS

The core principles for teaching are applicable in teaching the discipline of law. Law librarians have acknowledged the need to take cognisance of learning styles, prior learning and active learning, problem-solving activities and make teaching learner-centred.

Law schools and law teachers and indeed law librarians have for some time acknowledged the fact that cognisance needs to be taken of learning processes in the law school environment just as with other disciplines. Lustbader⁴⁵⁴ overviewed a growing body of literature that examined factors affecting the learning of law students both extrinsic and intrinsic; learning styles and teaching methods, mainly in the context of trying to improve teaching methods and hopefully the quality of the learning experience. She looked particularly at the need for a scaffolded approach via the Learning Progression model to learning in order for law student learning to be evolutionary and progressive in nature. The Learning Progression describes a progression through four sites in learning legal analysis. Students gain sophistication as they move through the sites and constantly build on and refer back to earlier sites. This approach acknowledges the need for creating context, provision of specific information, building confidence and sophistication progressively. She claims that this Learning Progression serves as a framework for progression in learning; serves as a diagnostic instrument in terms of what problems students are experiencing; shows why students have problems and provides ways to solve these problems.

Law school teaching is still dominated by lecturing and the delivery of the 'one size fits all' lecture which caters for only one learning style.⁴⁵⁵ According to Tileston⁴⁵⁶ reporting on research, only 20% of learners are auditory learners. As the study of law includes a number of facets, various teaching methods are needed to

⁴⁵⁴ P Lustbader. "Construction sites, building types, and bridging gaps: cognitive theory of the learning progression of law students." (1997) *Willamette Law Review* 315-365. Online: Westlaw. Accessed: 17.11.2004.

⁴⁵⁵ RA Boyle. "Employing active-learning techniques and metacognition in law school: shifting energy from professor to student." (2003) 2 *University of Detroit Mercy Law Review* 1-36. Online. Westlaw. Accessed: 6.7.2005; KA . "Valuing and nurturing multiple intelligences in legal education: a paradigm shift." (2005) 11 *Washington and Lee Race and Ethnic Ancestry Law Journal* 1-18. Online. Westlaw. Accessed: 6.7.2005.

⁴⁵⁶ DW Tileston. *10 best teaching practices: how brain research, learning styles and standards define teaching competencies.* (2000) .

encourage real learning. Large classes in law involve a wide variety of students with different learning styles and different needs in order to get to grips with the discipline. Some authors have considered the work of Kolb's learning style theory.⁴⁵⁷ Gerdy⁴⁵⁸ provided a very practical view of accommodating learning styles in teaching methods with legal research courses:

- in the first mode of 'why', the big picture of the legal research course needs to be provided in terms of why such skills are and will be important. She optimistically claims that this will generate enthusiasm for the other modes. Experiences of senior students and guest speakers will help illustrate
- in the second phase, the 'what' phase, students need facts and information about the course components, seeing how they fit into the big picture as well as time to reflect. Research journals and reports provide opportunities for reflection
- in the third phase of 'how,' students need to apply their knowledge which for law students is done best in the form of problem solving. Here is where research strategy is best situated and applying the new knowledge in a 'safe' environment where the answer is straight forward such as finding a case or a simple answer. The focus of this phase is on "both application of knowledge and on the acquisition and application of problem solving skills"⁴⁵⁹
- in the fourth phase 'what if', the students need to be able to apply the first three phases to a new situation to reinforce what has been learnt. This last phase also requires that students receive feedback and assess their learning. Evaluation is important as an indicator of what students have learnt and how well they learnt it and whether goals and objectives have been met.

⁴⁵⁷ R Burrige. Learning law and legal expertise by experience In: Burrige, R ... et al. *Effective learning and teaching in law*. (2002) 25-37; KB Gerdy. "Making the connection: learning style theory and the legal research curriculum." (2001) 19(3/4) *Legal Reference Service Quarterly* 71-93; KB Gerdy. "Teacher, coach, cheerleader, and judge: promoting learning through learner-centered assessment." (2002) 94(1) *Law Library Journal*, 59-88; J Bell. Legal education In: Cane, P and Tushnet, M. *Oxford handbook of legal studies*. (2003) 901-919; P Callister. "Beyond training: law librarianship's quest for the pedagogy of legal research education." (2003) 94(1) *Law Library Journal* 21-22.

⁴⁵⁸ KB Gerdy. "Teacher, coach, cheerleader, and judge: promoting learning through learner-centered assessment." (2002) 94(1) *Law Library Journal* 59-88; others as well: RA Boyle. "Employing active-learning techniques and metacognition in law school: shifting energy from professor to student." (2003) 81 *University of Detroit Mercy Law Review* 1-36. Online. Westlaw. Accessed: 6.7.2005; S Jacobson. "A primer on learning styles: reaching every student." (2001) 25 *Seattle University Law Review* 139-178.

⁴⁵⁹ KB Gerdy. "Teacher, coach, cheerleader, and judge: promoting learning through learner-centered assessment." (2002) 94(1) *Law Library Journal* 64.

In a legal research course she teaches, Gerdy has met the requirements of the phases by introducing the course and legal system, giving the class a small problem to research, reflection on the problems associated with the research, teaching the research skills and sources necessary to solve a problem and then have students go back to the library with another research topic. Students write up search strategies which are discussed in class. Up to this point research is carefully guided. A third assignment then follows which now must reflect research, reading and writing components. In this last assignment the research is now unguided as in the previous two. Gerdy claimed that the fourth phase of 'what if' or active experimentation is where most courses fail. Students need to now go out and 'solve' a real life problem so synthesising their theoretical knowledge. According to Gerdy, students need both well defined and ill-defined problems to ensure that students are actually competent in all aspects. Some she said may be quick to identify the facts of a situation but cannot research; or might be good at the practical aspects of researching but cannot apply the research to a problem. Well defined problems are key to the third phase to build confidence. Ill-defined problems ensure students are stretched to deal with all aspects of the learning experience. Students need to be able to transfer skills and processes to a new context.

Clinch ...et al⁴⁶⁰ in a new edition of their guide, have usefully considered learning theory in legal research. The behaviourist approach may be suitable for activities such as learning to use databases from a navigational point of view. The downside is the lack of integration with other activities and minimal development of intellectual processes. The social cognition school of learning would reflect in the conveying of the bigger picture and how components fit together as well as actively solving problems. This would be appropriate in terms of appreciating the integration of the information resources and how they can be used in problem-solving. This approach would include scaffolding, interaction and reflection. A third learning approach, that of experiential learning akin to Kolb's cycle of learning would, in terms of legal research represent actively participating in resolving a problem, identifying and carrying through a search strategy, application of knowledge and skills to situations and reflecting on activities.

⁴⁶⁰ P Clinch ...et al. *Teaching legal research*. 2nd ed. (2006) Ch 2: www.ukcle.ac.uk/resources/tlr/theory.html. Accessed: 18.7.2006.

In terms of teaching and learning in the study of law, as seen in sections 2.2.2 – 2.2.5., a range of problem-solving methods have been adopted. The literature reflects adoption of active techniques by librarians in legal research such as games, treasure hunts, use of quizzes and so on, as with other IL programmes. The bibliographic and process models have also been highlighted. Much of the attention given to the changing nature of teaching legal research has come about as a result of the changing technological environment (2.2.). This thesis has not investigated the nature of electronic learning but acknowledged the changing technological environment, the integral nature of electronic resources in teaching and learning legal research and the effects of this change. Potter⁴⁶¹ has pointed out the changing assumptions in terms of both teaching and learning with respect to legal research in the face of technological changes and has argued that whilst the form of materials is changing, legal research as a strategy is not and teachers need to remain mindful of this. He has claimed that the need to stay focused on research as a strategy is because law students 'don't have a context for research because they don't know enough about the law to conduct research.'⁴⁶² Teaching methods need to be flexible and mindful of the changing information environment.

Field⁴⁶³ has considered various teaching and learning paradigms within the South African context. She has argued that the new educational directions inherent in the SAQA standards and outcomes suggest a shift from the behaviourist approach of 'pre-SAQA' times which was characterised by the transmission form of teaching and rote learning to a constructivist one where learners are more actively involved in their learning. She has asserted that this new policy direction assumes that a shift in paradigm is necessary, that the old policy was behaviourist and that a behaviourist paradigm is non beneficial. Specifying outcomes and standards are behaviourist according to her although it is the content of said outcomes that will reflect a particular paradigmatic approach. Some imparting of knowledge may best fit in a behaviourist approach because of the 'exactness'⁴⁶⁴ of aspects of legal practice and the study and learning of law in South Africa does includes constructivist type

⁴⁶¹ TA Potter. "A new twist on an old plot: legal research is a strategy, not a format." (2000) 287-297.

⁴⁶² TA Potter. "A new twist on an old plot: legal research is a strategy, not a format." (2000) 291.

⁴⁶³ T Field. "Demystifying and problematising the paradigm shift affecting legal education." (2005) 16(2) *Stellenbosch Law Review* 324-348.

⁴⁶⁴ T Field. "Demystifying and problematising the paradigm shift affecting legal education." (2005) 16(2) *Stellenbosch Law Review* 346.

activities. The specificity of outcomes, proof of their being met and appropriate assessment for higher order thinking skills and knowledge is extremely difficult to do. 'One of the problems that the shift may raise is the difficulty inherent to articulating and qualitatively distinguishing between different levels of attainment in constructivist-type outcomes.'⁴⁶⁵

2.3.9. SUMMARY

This section has provided an overview of definitions and characteristics of the teaching situation with acknowledgement that the core function of the teaching process is helping learners to learn and involves learners, teachers, content, process and assessment. The challenge for teachers is creating appropriate and authentic learning situations which require alignment of teaching, learning and assessment activities. Teaching approaches range from mere transmission where the teacher is in complete control, to actively engaging learners in a variety of ways. A wide range of teaching models exist as well as paradigms, namely the behaviourist and constructivist paradigms. Characteristics of the constructivist approach to teaching have been outlined. Teaching strategies include activities such as scaffolding, appropriate and timely resource and information provision. Opportunities for reinforcement and application and building a shared understanding between learner and teacher is important. Instructional design is a critical aspect of teaching as this provides the framework and approach for the content, processes, assessment, objectives and outcomes of a module. Legal research and legal education have a particular flavour but the same facets of teaching and learning theory apply equally.

The next section, the last section of Chapter two, deals with assessment, considering the purpose and nature of assessment, types of assessment and assessment within academic library programmes.

⁴⁶⁵ T Field. "Demystifying and problematising the paradigm shift affecting legal education." (2005) 16(2) *Stellenbosch Law Review* 346.

2.3.10. ASSESSMENT

This section outlines the changing attitudes towards assessment, reasons for assessment, cultures of assessment, types and their advantages and disadvantages, principles that should form the base of all assessment and the nature of assessment within the IL context. Assessment needs to be authentic and be aligned with teaching and learning activities. One of the challenges for librarians is the opportunity for assessment.

2.3.10.1. Introduction

There have been gradual changes in approaches to assessment in higher education in recent times. According to various writers and researchers,⁴⁶⁶ despite the pervasiveness of assessment in HE it is still in some instances treated relatively uncritically. There has been a recognition of the need to view assessment as a means of support for learning and assessing how students learn rather than merely testing what they have learned.

As indicated earlier, changing demands of the workplace for employees who can think critically and problem-solve, developments in technology, the emphasis on process as well as product, and the changing view of education for life long learning have influenced changes in assessment approaches. The dichotomy of end product standardised assessment versus assessment that is aligned with teaching and learning objectives and supports learning exists because of the pressure on HE institutions to produce and adhere to standards for purposes of accountability to stakeholders and learner throughputs. At the same time there are calls for alternative assessment methods and approaches that are more creative and accommodate different learning styles, diversity in student populations, measure performance rather than the individual and encourage deep learning. Dierick and

⁴⁶⁶ P Broadfoot. *An introduction to assessment*. (2007) 110-128; G Stobart. *Testing times: the uses and abuses of assessment*. (2008) 145; C Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory* (1999) Vol. 2, 5-30; D Lambert and D Lines. *Understanding assessment: purposes, perceptions, practice*. (2000) 5-6; E Kifer. *Large-scale assessment: dimensions, dilemmas and policy* (2001); J Biggs. *Teaching for quality at university*. (1999) 13-20; RB Barr and J Tagg. "From teaching to learning: a new paradigm for undergraduate education." (1995) 1(6) *Change* 13-25. Leathwood critiques the social construction of assessment and its continued reinforcement of inequities in power, race and gender relations and its ability to categorise and rank learners against each other: C Leathwood. "Assessment policy and practice in higher education: purpose, standards and equity." (2005) 30(3) *Assessment & Evaluation in Higher Education* 307-324.

Dochy⁴⁶⁷ note that the new 'assessment culture' focuses on producing reflective practitioners, anchoring learning in real life situations, focuses on problem-solving skills, supports formative assessment and adopts alternative methods to tests such as portfolios and problem scenarios.

Fink refers to forward-looking assessment.⁴⁶⁸ This is assessment that would be an ongoing process that builds competencies by degree and in terms of what the product of the assessment should look like not one that only reflects, at discrete intervals and at the end of the module, what had been learned – backward-looking assessment. The problem-solving approach lends itself to forward-looking assessment. Forward-looking assessment also lends itself to feedback collectively and individually.

'Ultimately, the idea behind assessment is to discover something about the person being tested.'⁴⁶⁹ Assessment is an integral part of the teaching and learning processes. Assessment forms a critical part of the formal education process because it ultimately gives learners some formal or informal sense of achievement or mastery of content and skills, and teachers guidelines for development and refinement of teaching methods and course material. 'Assessment often appears to be taken as an issue separate from the creative process of teaching and learning.'⁴⁷⁰ The American Association of Higher Education⁴⁷¹ has pointed out that 'Assessment is not an end in itself but a vehicle for educational improvement.'

One of the main challenges with library instruction and IL as was noted in section 2.1.4., is assessment. Assessment of IL programmes has taken a variety of forms.⁴⁷² Assessment is an integral component of IL and an ongoing issue for

⁴⁶⁷ S Dierich and F Dochy. "New lines in edometrics: new forms of assessment lead to new assessment criteria." (2001) 27 *Studies in Educational Evaluation* 307-329.

⁴⁶⁸ DL Fink. *Creating significant learning experiences: an integrated approach to designing college courses.* (2003) 85-89.

⁴⁶⁹ D Lambert and D Lines. *Understanding assessment: purposes, perceptions, practice.* (2000) 7.

⁴⁷⁰ D Lambert and D Lines. *Understanding assessment: purposes, perceptions, practice.* (2000) 2.

⁴⁷¹ AAHE. *Nine principles of good practice for assessing student learning.* (2003). www.aahe.org/princip1.htm. Accessed: 13.7.2004.

⁴⁷² AF Roberts and SG Blandy. *Library instruction for librarians.* 2nd ed. (1989) 145-147; J Freedman and HA Bantly. Techniques of program evaluation. In: Clark, AS and Jones, AF. *Teaching librarians to teach: On-the-job training for bibliographic instruction librarians.* (1986) 188-204; L Cameron. Assessing information literacy. In: IF Rockman. *Integrating information literacy into higher education curriculum: practical models for transformation.* (2004) 207-236; BG Lindauer. Selecting and developing

librarians in terms of the 'what' and 'how' and 'when' of assessment activities.⁴⁷³ As noted earlier, the ACRL standards include both summative and formative assessment and the standards have prompted particular interest in assessment.⁴⁷⁴ Little appears to be known about the measurability of IL standards. The nature of assessment and its situation within courses can affect learning and teaching strategies so needs careful planning and implementation. IL involves cognitive and mechanistic skills development so a variety of, and appropriate assessment methods are required.

There are various useful overviews⁴⁷⁵ of the history of assessment in library instruction; kinds of assessment tools; new approaches required by the paradigm shift from library skills to information literacy; authentic assessment and outcomes. Evaluation appears to be sometimes equated with assessment. It is apparent from a scan of the literature and noted by Lindauer⁴⁷⁶ that there exists a large number of locally developed assessment tools, no standardised test for IL and much assessment activity is context specific – in terms of institutions or subject specific courses. Assessment is of learners' work, whilst evaluation is of the module or course.

2.3.10.2. Definition, purpose and characteristics of assessment.

Assessment has been defined as 'collecting, measuring and interpreting information relating to students' responses to the process of instruction', which seems a fairly

assessment tools. In: Avery, EF. *Assessing student outcomes for information literacy instruction in academic institutions*. (2003) 22-39.

⁴⁷³ BG Lindauer. Selecting and developing assessment tools. In: Avery, EF. *Assessing student outcomes for information literacy instruction in academic institutions*. (2003) 22-39; R Catts. Some issues in assessing information literacy In: Bruce, C and Candy, P. (eds). *Information literacy around the world: Advances in programs and research*. (2000) 271-283.

⁴⁷⁴ PD Maughan. "Assessing information literacy among undergraduates: a discussion of the literature and the university of California-Berkeley assessment experience." (2001) 62(1) *College and Research Libraries* 71-78.

⁴⁷⁵ CC Kuhlthau. *Assessment and the school library media center* (1994); EF Avery's compilation provides a range of case studies but also useful information about methods of assessment, data collection and issues: Avery, EF. *Assessing student outcomes for information literacy instruction in academic institutions*. (2003); RE Dugan and P Herrnon. "Outcomes assessment : not synonymous with inputs and outputs." (2002) 28(1/2) *Journal of Academic Librarianship* 376-380.

⁴⁷⁶ BG Lindauer. Selecting and developing assessment tools. In: Avery, EF. *Assessing student outcomes for information literacy instruction in academic institutions*. (2003) 28-29.

uniform description.⁴⁷⁷ Whilst one can discuss assessment generically, 'all practice, including assessment practice, is heavily contextualised by the subject discipline.'⁴⁷⁸

Although assessment is used to for a wide variety of purposes, the broad purpose of assessment is:

- to provide feedback to teachers and learners about progress so as to be able to support and sustain future learning (formative role)
- to provide information about the level of learning attained at particular points in time (summative role)
- to provide selection means in terms of qualifications (certification role)
- to add to the body of information concerning the effectiveness of learners and institutions (evaluation role).⁴⁷⁹

Laurillard⁴⁸⁰ has noted the ongoing debate as to whether teachers should assess what learners know or what they can do.

According to Curzon the characteristics of assessment are that:⁴⁸¹

- *assessment should occur at appropriate times.* Appropriate times are determined by factors such as the length of a course and the rate of progress of learners. Four types of assessment commonly used are the prerequisite test, pre and post-tests and retention tests in summative assessment.
- *assessment should be in a suitable form.* The assessor needs to ask what it is that must be assessed, for what precise purpose and how best can that which needs to be assessed be elicited. The assessment should reflect the subject matter and course purpose. Kifer⁴⁸² has indicated that assessments should be designed for very particular purposes and there is no 'one fits all.' Entwistle and Ramsden,⁴⁸³ who pioneered research into student learning, noted that the

⁴⁷⁷ LB Curzon. *Teaching in further education: an outline of principles and practice*. 6th ed. (2004) 383.

⁴⁷⁸ D Lambert and D Lines. *Understanding assessment: purposes, perceptions and practice*. (2000) 1; 7-9; supported by N Entwistle and P Ramsden. *Understanding student learning*. (1983) 209.

⁴⁷⁹ D Lambert and D Lines. *Understanding assessment: purposes, perceptions and practice*. (2000) 4.

⁴⁸⁰ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002) 205.

⁴⁸¹ LB Curzon. *Teaching in further education: an outline of principles and practice*. 6th ed. (2004) 388-389.

⁴⁸² E Kifer. *Large-scale assessment: dimensions, dilemmas, and policy*. (2001) 32-34.

⁴⁸³ N Entwistle and P Ramsden. *Understanding student learning*. (1983) 208.

quality of student learning is adversely affected by inappropriate assessment methods.

- *assessment should be in a form which is perceived as valid and which is as accurate as possible a measure of what it purports to measure. Assessment should be as comprehensive as possible across the course.*
- *assessment should show a high degree of reliability. Assessment should measure in a consistent fashion and demonstrate objective marking*
- *assessment should be presented as an integral part of the course not as an add on or an imposition for the sake of assessment.*

‘Assessment should be an active demonstration of student understanding and their ability to apply this understanding.’⁴⁸⁴ To this end assessment needs to be continuous, should be introduced simultaneously with course material and should require students to more than simply remember, for example include writing, discussion, debate, creating things and so on. Assessment should also be aligned to learning styles and outcomes.⁴⁸⁵ Students need to be given the tools to formulate understanding, structures for problem -solving and research retrieval skills and only then should they be assessed to see if they can use the tools.⁴⁸⁶ Threatening assessment tends to encourage surface rather than deep learning.⁴⁸⁷ Assessment should reflect what students need to be able to do with learning.⁴⁸⁸ Various authors discuss the need for authentic assessment, that which reflects ‘the complex performances that are central to a field of study.’⁴⁸⁹

It is important that a teacher determine whether it is product, process or both that need to be assessed. Two broad types of assessment are: external, for example, that driven by system needs to provide data for evaluation purposes. This often

⁴⁸⁴ DW Tileston, *10 best teaching practices: how brain research, learning style, ,and standards define teaching competencies*. (2000) 59.

⁴⁸⁵ N Entwistle and P Ramsden. *Understanding student learning*. (1983) 208-213; J Biggs. *Teaching for quality at university*. (1999); J Heywood. *Assessment in higher education: student learning, teaching, programmes and institutions*. (2000) 219-245.

⁴⁸⁶ DW Tileston. *10 best teaching practices: how brain research, learning styles, and standards define teaching competencies*. (2000) 59.

⁴⁸⁷ N Entwistle and P Ramsden. *Understanding student learning*. (1983) 209; J Biggs. *Teaching for quality at university*. (1999) 35.

⁴⁸⁸ N Entwistle and P Ramsden. *Understanding student learning*. (1983) 209.

⁴⁸⁹ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002) 204.

involves consideration of standards. Internal assessment, that which takes place in the classroom, is less formal, more qualitative – hence often less valued – and is contended to be a useful indicator of learning.⁴⁹⁰

What assessment is and should do has been reconceptualised in terms of the promotion of constructive alignment between learning, teaching and assessment as propounded by the likes of Biggs (see section 2.3.7.3) and the increasing focus on the learner. Types of learning require different assessment criteria. For example, learning types such as generic skills, deep learning and complex learning (construction of new knowledge) require particular learning activities and therefore assessment methods and criteria. Assessment criteria should become learning criteria thus reflecting process.⁴⁹¹

Research has also been undertaken into student information seeking behaviour as a way of developing pedagogy and ultimately assessment. Edwards and Bruce⁴⁹² undertook phenomenographic research with a group of students enrolled in an information resources module regarding how these students viewed and actually undertook Web based information searching. They referred to the 'space of variation'⁴⁹³ – the varying experiences students had with searching the Web. Being aware of this space and the students' experiences of searching the authors claimed, allowed for the development of appropriate teaching and learning activities to change experiences of information searching and that assessment could be a mechanism for changing this experience. The student research group had indicated that reflective assignments had helped them change their searching behaviours. Other research by Maybee, Limberg and Lupton⁴⁹⁴ supports that of Bruce. The

⁴⁹⁰ D Lambert and D Lines. *Understanding assessment: purposes, perceptions and practice*. (2000) 193-194

⁴⁹¹ J Elander ... et al. "Complex skills and academic writing: a review of evidence about core types of learning required to meet core assessment criteria." (2006) 31(1) *Assessment & Evaluation in Higher Education* 71-90.

⁴⁹² SL Edwards and C Bruce. "The assignment that triggered change: assessment and the relational learning model for generic capabilities." (2004) 29(2) *Assessment & Evaluation in Higher Education* 142-157.

⁴⁹³ SL Edwards and C Bruce. "The assignment that triggered change: assessment and the relational learning model for generic capabilities." (2004) 29(2) *Assessment & Evaluation in Higher Education* 142.

⁴⁹⁴ C Maybee. "Undergraduate perceptions of information use: the basis for creating user-centred student information literacy." (2006) 32(1) *Journal of Academic Librarianship* 79-85; L Limberg. Is there a relationship between information seeking and learning outcomes? In: Bruce, C and Candy, P. *Information literacy around the world*. (2000) 193-208; M Lupton. *Information literacy and learning*. Brisbane: Queensland University of Technology (2008). PhD thesis. <http://en.scientificcommons.org/41591984>. Accessed: 2.3.2009

understanding of student perceptions of information use has indicated this is critical for developing teaching, learning and assessment activities within the relational approach in particular, that helps learners to conceptualise and use information in different ways as generic and context specific skills and knowledge. The relational approach (section 2.1.7.3) supports a broader approach to IL as a relationship between learner and information environment where the learner experiences this environment in a variety of ways. This research provides a valuable dimension to approaching assessment holistically. Assessment can be developed not just from the point of view of the teacher and objectives and outcomes but in terms of providing authentic assessment criteria that support the gap between where learners think and demonstrate they are to a position of being able to appreciate multiple lenses for viewing the world.⁴⁹⁵

The 2002 January and March issues of the *Journal of Academic Librarianship* was devoted to outcomes assessment. The articles included visited the challenges and problems of assessment within the context of information literacy. Baker and Lindauer considered regional accreditation with a focus on quality assurance and standards.⁴⁹⁶ Maki and Carter considered assessment within the context of student learning, continuous assessment and outcome assessment methods such as pre- and post-tests and the lack of research in this field within librarianship.⁴⁹⁷ Dunn provides a useful case study of an attempt to evaluate the information literacy standards.⁴⁹⁸

2.3.10.3. Types of assessment: principles

Gipps⁴⁹⁹ has overviewed the traditional and alternative views about learning and assessment. Traditional assessment was more about performance and geared towards testing where it was assumed knowledge could be broken down into

⁴⁹⁵ SL Edwards and C Bruce. "The assignment that triggered change: assessment and the relational learning model for generic capabilities." (2004) 29(2) *Assessment & Evaluation in Higher Education* 142-157.

⁴⁹⁶ RL Baker. "Evaluating quality and effectiveness: regional accreditation principles and practices." (2002) 28 (1/2) *Journal of Academic Librarianship* 3-7; B Lindauer. "Comparing the regional accreditation standards: outcomes assessment and other trends." (2002) 28(1/2) *Journal of Academic Librarianship* 14-25.

⁴⁹⁷ PL Maki. "Developing an assessment plan to learn about student learning." (2002) 28(1/2) *Journal of Academic Librarianship* 8-13; EW Carter. "Doing the best you can with what you have.": lessons learned from outcomes assessment." (2002) 28(1/2) *Journal of Academic Librarianship* 36-41.

⁴⁹⁸ K Dunn. "Assessing information literacy skills in the California State University: a progress report." (2002) 28 (1/2) *Journal of Academic Librarianship* 26-35.

⁴⁹⁹ CV Gipps. *Beyond testing: towards a theory of educational assessment*. (1994) 21-29.

discrete skills that could be learnt separately having been 'transplanted' into the heads of learners and then tested separately. The alternative or constructivist approach suggests that learning happens by constructing knowledge and interpreting it. Instruction is thus seen not as a direct transfer of knowledge but an 'intervention, in an ongoing knowledge construction process.' Assessment here thus needs to take cognisance of levels and complexity of understanding rather than recognition or recalling of fact. Gipps believed that a more problem solving approach to learning and assessment is required and assessment should focus on higher order learning skills such as understanding of principles, application of knowledge and skills to new tasks; investigating, analysing and discussing complex issues. Gipps has promoted scaffolded assessment⁵⁰⁰ which denotes a more interactive mode of assessment.

There are many problems associated with testing. Testing tends to affect what is taught and affects behaviours of students and teachers alike. Often the test becomes the end rather than the means to an end. Abilities that are tested become the focus of teaching, often at the expense of non tested skills. Society tends to view the goal of schooling as being the test rather than as a useful measure of achievement.⁵⁰¹

Gipps (quoting Stiggins and Bridgeford) views performance assessment as being:

a systematic attempt to measure a learner's ability to use previously acquired knowledge in solving novel problems or completing specific tasks... real life or simulated assessment exercises are used to elicit original responses which are directly observed and rated.⁵⁰²

Loosely defined, performance testing is anything other than multiple-choice. She has distinguished between performance assessment and authentic assessment. The latter is performance assessment carried out in an authentic setting where the complex performances that are central to a field of study are reflected. Kifer⁵⁰³ has expressed a preference for performance assessments over multiple-choice testing

⁵⁰⁰ CV Gipps. *Beyond testing: towards a theory of educational assessment* (1994) 27.

⁵⁰¹ CV Gipps. *Beyond testing: towards a theory of educational assessment*. (1994) 36; J Biggs. *Teaching for quality at university*. (1999) 14-19, 35.

⁵⁰² CV Gipps. *Beyond testing: towards a theory of educational assessment*. (1994) 98-99.

⁵⁰³ E Kifer. *Large-scale assessment: dimensions, dilemmas, and policy*. (2001) 60.

because such require knowledge about something as well as reasoning and depth rather than breadth of knowledge.

A portfolio would be considered a type of authentic assessment. Indeed it would seem, that based on this exposition of performance testing, the study of law is ideally suited to performance testing and authentic assessment is a feature of many courses. As regards legal research instruction, the challenge is to present real life situations and their assessment thereof, in an integrated manner that shows the learner how law is studied and applied. Whilst many students can 'talk the talk; they are unable to apply the law which requires a deep approach to learning. Laurillard⁵⁰⁴ has indicated that there is still an ongoing debate around the ability of authentic assessment to measure a learner's ability to transfer their learning to new settings. She also noted that new technologies must be properly integrated into coursework if they are to be seen as an authentic and reliable part of the learning process and assessment.

The portfolio is a useful example of performance assessment as it 'contains examples of actual student performance: 'best' performance elicited under normal classroom conditions in the classroom context.'⁵⁰⁵ Portfolios are one way of gathering evidence that 'reflects the depth of understanding a student possesses...and demonstrates their abilities to delve in depth in a subject and also make connections between various content areas.'⁵⁰⁶ The portfolio is an instrument of assessment that can be used for a variety of purposes.⁵⁰⁷ A portfolio is 'a collection of work that can include a diverse record of an individual's achievements, such as results from authentic tasks, performance assessments, conventional tests or work samples. A portfolio documents achievements over time.'⁵⁰⁸ Performance assessment is part of a portfolio. The processes fostered by the portfolio approach which include learning processes such as self-evaluation; constructing, presenting

⁵⁰⁴ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. 2nd ed. (2002) 205-206.

⁵⁰⁵ CV Gipps. *Beyond testing: towards a theory of educational assessment* (1994) 98; the portfolio approach has been considered in library instruction: see LL Snively and CA Wright. "Research portfolio use in undergraduate honours education: assessment tool and model for future work." (2003) 29 *Journal of Academic Librarianship* 298-303.

⁵⁰⁶ E Kifer. *Large-scale assessment: dimensions, dilemmas, and policy* (2001) 74.

⁵⁰⁷ V Klenowski. *Developing portfolios for learning and research: processes and principles* (2002).

⁵⁰⁸ V Klenowski. *Developing portfolios for learning and research: processes and principles* (2002) 26.

and reflecting on content; as well as metacognitive development which involves thinking about learning. Conceptualisation of the nature and purpose of a portfolio is important as well as the design of portfolios and their grading and that there are different dimensions to assessment within a portfolio.⁵⁰⁹

Feedback is a critical component of portfolio assessment and should be more than just a grade providing students with constructive information that will help them understand and be able to improve their work.⁵¹⁰ Feedback needs to have a transformative function, enhancing learning and promoting achievement. The need for, and problems of, validity, reliability, summative and formative purposes and practical problems with assessment has been noted.⁵¹¹ Klenowski specifically has situated the use of portfolios within constructivist learning theory.⁵¹²

2.3.11. SUMMARY

This chapter has provided an overview of some of the key theories, research, ideas and practices with respect to information literacy, legal education and legal research, learning and teaching and assessment. This literature is vast and what has been apparent is the contested nature of this theory and research and the wide range of ideas and practices. Despite the acceptance of broad theories and much research, implementation of teaching and learning activities in practice are highly context specific particularly with regard to IL activities. There is still a lack of understanding about exactly how learners learn and the best ways of helping learners learn. It has been acknowledged that teaching needs to be learner-centred, active and there needs to be a range of authentic learning and teaching and assessment activities to cater for the diversity of learner characteristics. The chapter has shown that IL is still a developing field of research and practice and although played out in context specific situations, the broad characteristics of IL are applicable in any situation. Legal research bears many similarities in terms of the 'what' and 'how' of IL whilst having its own distinct flavour. Teaching and learning

⁵⁰⁹ V Klenowski. *Developing portfolios for learning and research: processes and principles* (2002) 26-28.

⁵¹⁰ V Klenowski. *Developing portfolios for learning and research: processes and principles* (2002) 58.

⁵¹¹ this aspect is usefully overviewed by Johnston: B Johnston. "Summative assessment of portfolios: an examination of different approaches to agreement over outcomes." (2004) 29(3) *Studies in Higher Education* 394-412.

⁵¹² V Klenowski. *Developing portfolios for learning and research: processes and principles* (2002).Chapter 7.

theory forms the backbone of IL programmes in terms of understanding learner characteristics, instructional design and teaching and assessment strategies.

The next chapter, chapter three, outlines the methodology used in this thesis.

CHAPTER 3

RESEARCH PROCESS

This chapter provides a description of the relevant facets of the methodology adopted for the current research. This chapter begins with a brief discussion of what research is and then considers the nature of methodology and design. The literature has indicated a wide variation in interpretation and use of terminology. The current study is a case study and situates itself within the qualitative paradigm and a constructivist framework. As the current study employs a combination of quantitative and qualitative methods, the differences between these two paradigms are discussed as well as the advantages and problems associated with each paradigm. Issues of validity, reliability, triangulation and objectivity are presented within the context of both the quantitative and qualitative paradigms. The second half of the chapter focuses on what constitutes data, the role of theory, the nature of case studies and justification for the current study being a case study. Finally the different data collection instruments used in the study are explored, namely the questionnaire, pre- and post-test, learning styles inventory, focus groups, observation, reflection exercise and focus groups. The chapter concludes with a brief evaluation of the use of the different methods in the current research.

3.1. WHAT IS RESEARCH?

According to Powell¹ a single definition of research is not possible because there are so many kinds of research. His overview of definitions within the literature indicates that the basic characteristics of research are the systematic nature of the inquiry with respect to a particular problem, thoroughness, application of particular methods to elicit data and the end result being the advancement of knowledge, or for application.

¹ RR Powell. *Basic research methods for librarians*. (1997) 2.

Other authors also discuss the problems associated with defining research, and in particular educational research.² This author prefers the broader definition of research of Bassey quoted by Wellington:³ 'systematic, critical and self-critical inquiry which aims to contribute to the advancement of knowledge' – as applied to educational phenomena in the case of educational research. Hernon, quoted by Gorman and Clayton⁴ provided a definition with respect to its purpose:

Research is an inquiry process that has clearly defined parameters and has as its aim the: discovery or creation of knowledge, or theory building; testing, confirmation, revision, refutation of knowledge and theory; and/or investigation of a problem for local decision making.

Smith and Hodkinson⁵ indicated that the purpose of research is discovery of truth. Truth they say is 'the accurate representation of an independently existing reality.' Neuman's⁶ description is that social research is a structured, systematic and organised process and collection of methods for producing knowledge about the social world. The purpose of research is the advancement of knowledge. This purpose is sufficiently broad to allow for research that promotes theoretical understandings of educational processes and informs practice. The research does not necessarily have to be hypothesis based, affirmative, nor geared towards policy goals.

Powell and de Vos ... et al and Neuman⁷ indicated that the various definitions reflected two broad types of research, namely basic and applied. Basic research refers to theoretical or scientific research whose primary purpose is to advance knowledge. Basic research does not necessarily focus on how this new knowledge will be acted upon even though it may be a forerunner to informing action. Applied research on the other hand attends to the solution of real problems in the first instance. For each type, particular techniques are employed. The two types are not

² RR Powell. *Basic research methods for librarians*. (1997) 10-14; GK Verma and K Mallick. *Researching education: perspectives and technique*. (1999) 31-33; L Cohen, L Manion and K Morrison. *Research methods in education* 5th ed. (2000) ch 1.

³ J Wellington . *Educational research: contemporary issues and practical approaches*. (2000) 13.

⁴ GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook*. (1997) 22.

⁵ JK Smith and P Hodkinson. Relativism, criteria and politics. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 916.

⁶ WL Neuman. *Social science research methods*. 4th ed. (2000) 1-2.

⁷ RR Powell. *Basic research methods for librarians*. (1997) 2; AS de Vos ...et al. *Research at grass roots for the social sciences and human service professions*. 2nd ed. (2002) 108; WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 23-25.

however always separate and one may inform the other. The current study is one of applied research as it has as its aim, the development of a specific kind of programme in order to attend to problems of the constraints of the lecture mode of instruction for the teaching of the Legal Research Writing and Reasoning module.

3.2. RESEARCH METHODOLOGY, RESEARCH DESIGN AND STRATEGIES AND RESEARCH METHODS

3.2.1. METHODOLOGY

Babbie and Mouton⁸ indicated that the methodology section of a study focuses on the process of research and tools or techniques to be used. Although sometimes terminology appears to be used interchangeably, methodology as opposed to methods, refers to the selection, description, critique, evaluation and justification of methods used in a piece of research.⁹ Wellington¹⁰ asserted that research cannot be assessed if there is no methodology. The research process itself involves an evaluation of methods as methods are used and tested. According to Wellington¹¹ methodology therefore involves asking questions of why particular methods are chosen and used; assessment of the quality of the data obtained via a particular method; what inferences including generalisations can be drawn from the data; what alternatives if any might have been more appropriate and did the researcher affect the data collected in any way. Brannen¹² reviewed descriptions and definitions of methodology and concludes that methodology is not a technical activity but aids the understanding of the process of inquiry.

3.2.2. DESIGN

Babbie and Mouton¹³ cautioned that methodology must not be confused with research design although the literature indeed reflects different interpretations of what constitutes research design. Again, different authors have used different

⁸ E Babbie and J Mouton. *The practice of social research*. (2001) 75.

⁹ J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 22-23; RR Powell. *Basic research methods for librarians*. (1997) 239.

¹⁰ J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 22-23; RR Powell. *Basic research methods for librarians*. (1997) 239.

¹¹ J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 22-23; RR Powell. *Basic research methods for librarians*. (1997) 239.

¹² J Brannen. Working qualitatively and quantitatively. In: Searle, C. (ed.) *Qualitative research practice*. (2004) 312-314.

¹³ E Babbie and J Mouton. *The practice of social research*. (2001) 75.

terminology and categorised research design from different perspectives and have different interpretations of what is meant by design. Research design considers the problem, what kind of evidence is required to deal with the problem and the type of results desired. It is the plan that indicates how the research is going to be conducted and the desired end result.¹⁴

A research design describes a flexible set of guidelines that connect theoretical paradigms first to strategies of inquiry and second to methods for collecting empirical materials. A research design situates the researcher in the empirical world and connects him or her to specific sites, persons, groups, institutions, and bodies of relevant interpretive material ...and connect the researcher to specific methods of collecting and analysing empirical materials.¹⁵

A strategy could be a case study and specific methods might be interviews and so on. Cohen, Manion and Morrison¹⁶ appear to view methodology as the overriding research style, such as action research, case study etc. De Vos¹⁷ indicated that authors have variously used the terms plan, strategy, methods and approach for design and they prefer the term strategy, For Cohen, Manion and Morrison research design refers to 'the act of designing the study in its broadest sense'.¹⁸ Gerring¹⁹ defined research design as 'any investigation of the empirical world that bears upon a proposition's truth-value – its degree of truth or probability of truth, which we call accuracy...'. Research strategy is expressed in terms of exploratory or confirmatory research. Often research is a matter of trade offs between the two and most social science research involves at least some exploratory research.

Creswell²⁰ claimed that the most common research designs have been classified in different ways, predominantly into broadly quantitative and qualitative designs. In quantitative research, research designs include experiments, exploratory designs, one-shot case studies, longitudinal cases studies, survey designs and pre-test post-test designs. In qualitative research, the five broad research designs that generally

¹⁴ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 25.

¹⁵ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 25.

¹⁶ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 75.

¹⁷ AS de Vos ...et al. *Research at grass roots for the social sciences and human service professions*. 2nd ed. (2002) 271.

¹⁸ AS de Vos ...et al. *Research at grass roots for the social sciences and human service professions*. 2nd ed. (2002) 138.

¹⁹ J Gerring. *Social science methodology: a critical framework*. (2001) 155.

²⁰ JW Creswell. *Qualitative inquiry and research design: choosing among five approaches*. (1998).

reflect qualitative research design are: biography, phenomenology, grounded theory, ethnography and case study. Brannen²¹ argued that a common distinction attempted in social research in terms of research strategies or paradigms²² is between qualitative and quantitative strategies. Rather the nature of the research questions should influence strategy within research design and qualitative and quantitative data should be seen as complementary. This is supported by others.²³ She believes that in practice it may be difficult and short sighted to attempt to distinguish any study as either qualitative or quantitative.

Babbie and Mouton²⁴ discussed the various types of research design as: experiments, survey research, qualitative research, participatory action research, evaluation research and unobtrusive research. They²⁵ reiterated that the research design and methods or techniques employed are ultimately determined by the nature of the research problem and the evidence needed to address the problem. Cohen, Manion and Morrison²⁶ referred to the research design as 'fitness of purpose'. Here the researcher moves from broad purpose and aims to more and more concrete research questions to selection of appropriate methodology and data gathering instruments. In social science research the research design often evolves as the research develops so all the steps and sources of data cannot necessarily be predetermined.²⁷

Research methods are then the specific means, procedures, specific tools or instruments used to collect data and information depending on whether quantitative or qualitative data is required.²⁸ The methods are also determined by the research questions and methodology and what information or data is needed. Methods include questionnaires, observation and the like. Gorard warned that choice of

²¹ J Brannen. Working qualitatively and quantitatively. In: Searle, C. (ed.) *Qualitative research practice*. (2004) 312-314.

²² 'Paradigms are systems of inquiry with particular underlying ontological, epistemological and axiological assumptions': LT Hoshmand and J Martin. *Research as praxis*. (1995) 12.

²³ GK Verma and K Mallick. *Researching education: perspectives and techniques*. (1999); E Babbie and J Mouton. *The practice of social research* (2001) 75.

²⁴ E Babbie and J Mouton. *The practice of social research*. (2001) 72.

²⁵ E Babbie and J Mouton. *The practice of social research*. (2001) 75.

²⁶ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 73.

²⁷ M Hammersley. Teaching qualitative method: craft, profession or bricolage? In: Searle, C...et al. *Qualitative research practice*. (2004) 550.

²⁸ RR Powell. *Basic research methods for librarians*. (1997) 239.

method must not precede choice of topic.²⁹ Often in the literature, the words method and methodology are used interchangeably.

In his discussion of social science research, Gerring³⁰ considered four research designs in terms of case studies. His ten criteria for 'goodness' in social science research design and selection of cases are: plenitude, boundedness, comparability, independence, representativeness, variation, analytic utility, replicability, mechanism and causal comparison. He indicated that tradeoffs need to be made between these criteria dependent on the particular situation.

In terms of the current study, the problem was the study of a particular module and the feasibility of developing and applying an active learning approach within an IL paradigm, to this module. Particular questions involved examining what the theoretical basis of teaching and learning and IL was; the characteristics of students and how these affected learning and teaching activities; what was active learning and how it could be applied in the module under study and what was the nature of legal research teaching in South African law schools. In terms of research design, the current module exists as a distinct entity with a particular population hence lent itself to a case study strategy for studying the module.

The nature of the problem requires an understanding of the theoretical basis of learning and teaching and IL in order to inform the redesign of the module. The design then needed to be applied to the module in question and evaluated on an ongoing basis as well as holistically. The kinds of evidence needed include characteristics of the student population in the module to establish a baseline of knowledge about this population. It was also necessary to establish how well the students managed aspects of the new approach and what their impressions of the module were as a means of informing future development of the module. The instructional design itself provided evidence of the specifics of the new approach which was applied to the module.

²⁹ S Gorard. *Quantitative methods in educational research: the role of numbers made easy*. (2001) 8.

³⁰ J Gerring. *Social science methodology: a critical framework*. (2001) 161ff..

This current case study firstly established the theoretical base for the research, followed by a study of the characteristics of students. Alongside the theoretical base was the nature of South African higher education and in particular legal education. It was envisaged that evidence would be obtained from a literature review which would inform actual design of the module. Pre-testing provided an indication of what the student's prior knowledge was ahead of the module. A learning styles inventory was administered, along with a questionnaire for background concerning demographic characteristics, work habits and knowledge of content and processes relevant to the module will support the pre-test. As it was not feasible to use a control group, a pre- and post-test was used as one measure of effectiveness of the module approach, alongside focus group reports and observation. It was anticipated that techniques such as observation of group work would add to the description of the nature of the process as the module unfolds. Thus a combination of qualitative and quantitative techniques were used. These different methods and data enabled the author to show the workings in terms of providing a rich description of the development of, application of and processes of the active learning approach to the Legal Research Writing and Reasoning module.

3.3. EDUCATIONAL RESEARCH : AN INTRODUCTION

Educational research involves the study of human beings in particular educational contexts hence ethical issues are particularly important. The purpose of education research that this author was concerned with was improvement in practice or system. Verma and Mallick³¹ considered the subject matter of education research as being the individual and his / her performance; the group performance; school (or university) performance; school management; interpersonal relationships; curriculum and teachers/teaching from a range of perspectives. Wellington³² noted that educational research encompassed many different approaches or paradigms and often a mixture of approaches is used. This is often necessary and a healthy way to approach research. These authors also considered how educational research has been classified – not without difficulty – by purpose, by discipline, according to method, qualitative versus quantitative, and approach or paradigm such as positivist, constructivist and so on, applied research, by level such as

³¹ GK Verma and K Mallick. *Researching education: perspectives and techniques*. (1999) 14-21.

descriptive, explanatory, generalisation and theoretical³³ and in terms of intended audience.

Verma and Mallick³⁴ indicated that the usefulness of classification of educational research is that 'the criteria for evaluating educational research become clearer when they are related to the specific methodological characteristics of each category.' They identified three broad categories of research, these being the historical method; the experimental method and the descriptive method. The descriptive method is particularly concerned with the portrayal of the present for a given situation even though background information to understand what gave rise to particular phenomena may be a critical aspect of the study. For Verma and Mallick,³⁵ descriptive research was concerned with collection and collation of factual data or information as well as consideration of relationships, the discovery of meaning and the interpretation of and significance of what has been described. As this approach has been criticised for a variety of reasons including researcher bias in terms of interpretation of data, they indicated that a particular plan needs to be followed in descriptive research.

The plan followed should encompass clarity of and definition of issues and problems; formulation of research questions and elucidation of the underlying assumptions; selection and description of the subject or sample and appropriate methods; selection of research techniques, tools and instruments; questions to be addressed on the basis of the data collected; results must be described, analysed and interpreted and reported. Descriptive studies they said, include surveys, case studies, action research, evaluation studies and comparative studies. Important to all research is that techniques and methods must match the nature of the problem.³⁶ Others have argued that case studies enable more than description. (see section 3.8.2). The current research is a case study and is concerned with improvement of practice.

³² J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) Ch2.

³³ GK Verma and K Mallick. *Researching education: perspectives and technique*. (1999) quoting Anderson 45.

³⁴ GK Verma and K Mallick. *Researching education: perspectives and technique*. (1999) 74.

³⁵ GK Verma and K Mallick. *Researching education: perspectives and technique*. (1999) 77-81.

³⁶ GK Verma and K Mallick. *Researching education: perspectives and technique*. (1999) 79; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 76-7; NK Denzin and YS Lincoln. *Handbook of qualitative research*. 2nd ed. (2000) 8 -10; E Babbie and J Mouton. *The practice of social research*. (2001) 270-274.

3.4. QUANTITATIVE AND QUALITATIVE RESEARCH

This section describes the characteristics and differences between quantitative and qualitative research and the roles these two paradigms play in social science research as well as documented issues and debates surrounding their use. The aspects of validity, reliability, triangulation and objectivity are presented, particularly with respect to the qualitative paradigm.

3.4.1. INTRODUCTION

The debate around whether social science and educational and librarianship research should reflect a qualitative or quantitative approach still appears to be alive and well. It is not the purpose of this study to enter this debate more than to understand where the current study is best situated. The different approaches have particular ontological and epistemological viewpoints that affect how the research is conceptualised, research design and methodology. It also affects how best data may be collected and interpreted in terms of answering the research questions. This author agrees with Verma and Mallick and others³⁷ that quantitative and qualitative labels are not mutually exclusive and often complement each other.³⁸ Schulze³⁹ noted that pragmatically, research may well require a combination of both approaches and she suggested different models for combining the two approaches. The quantitative research model supposes a positivist approach. The world is a 'collection of observable events and facts that can be measured.'⁴⁰ The qualitative or interpretivist model 'draws data from the context in which events occur, in an attempt to describe these occurrences.'⁴¹ Such constructs being more difficult to measure precisely.

In the current study the quantitative methods used were questionnaires for the module students and law schools; a pre and post-test and a learning styles inventory. The qualitative methods used were focus groups, a reflection exercise,

³⁷ GK Venna and K Mallick . GK Verma and K Mallick. *Researching education: perspectives and technique.* (1999) 26; L Cohen, L Manion and K Morrison. *Research methods in education.* 5th ed. (2000) 76; J Wellington. *Educational research: contemporary issues and practical approaches.* (2000) 49.

³⁸ J Wellington. *Educational research: contemporary issues and practical approaches.* (2000) 11.

³⁹ S Schulze. "Views on the combination of quantitative and qualitative research approaches." (2003) 25(2) *Progressio* 8-20.

⁴⁰ GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook.* (1997) 3.

⁴¹ GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook.*

observation and student assignments. These will be dealt with more fully in sections 3.8 and 3.9 of this chapter.

3.4.2. CHARACTERISTICS OF QUANTITATIVE AND QUALITATIVE ORIENTATIONS IN SOCIAL AND EDUCATIONAL RESEARCH

Denzin and Lincoln⁴² argued that the broad differences between quantitative and qualitative research styles are that qualitative researchers generally although not exclusively, emphasise the socially constructed nature of reality, the interrelationship between researcher and researched, place value on thick descriptions and acknowledge the value-laden nature of inquiry. Quantitative research claims to be value-free, focuses on measuring and analysing causal relationships usually quantitatively, the non participatory or objective role of the researcher and generalisation of findings. Researchers bring to research various beliefs and philosophical assumptions in terms of ontology, epistemology and methodology that in turn affect their choice of paradigm/s and how data collection and analysis and interpretation take place. Various paradigms and perspectives in qualitative research have been presented. Denzin and Lincoln⁴³ discussed what they consider to be four major paradigms. These are positivist and post-positivist, constructivist-interpretive, critical and feminist-poststructural. Again, they argue that research may not fit neatly into one or other paradigm. These philosophical underpinnings affect how the researcher views and conducts research.

This author argues that the current research reflected a more constructivist philosophical underpinning.⁴⁴ The author was an integral part of the world of the participants being the designer and teacher for the module, alongside some guest lecturers, so was a participant, observer, facilitator and inquirer. The author was thus not a detached observer. The research took place within a naturalistic setting, the classroom, an environment that itself reflects a particular reality. The research was value-laden in the sense that both researcher and participants had inherent

(1997) 3.

⁴² NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 1- 32.

⁴³ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *Sage handbook of qualitative research*. 3rd ed. (2005) 10-25.

⁴⁴ EG Guba and YS Lincoln. Paradigmatic controversies, contradictions, and emerging confluences. In: Denzin, NK and Lincoln, YS. *Sage handbook of qualitative research*. 3rd ed. (2005) 192-200; EG Guba and YS Lincoln. *Fourth generation evaluation*. (1989) 79-116.

value systems and theory itself reflects particular stances. It is still possible for objectivity to be adhered to in terms of the thick description and showing the workings of the research. Methodologically, the constructions or workings of the research are made clear.

The environment was highly subjective. The participants and author reflected individuals with different understandings of reality and the process of teaching and learning was one in which knowledge was constructed. The primary concern of the research was how knowledge was constructed individually and collectively for a given scenario within the context of this particular situation. It was acknowledged that the full intentions of the participants can never be known and that the research aimed to provide a description and interpretation of facets of the situation and participants, albeit from different directions. Clear cause and effect in terms of immutable laws is not the case as actions are constantly being reconstructed in the face of new information.

The nature of quantitative and qualitative research will be outlined next with a view to clarifying the approach of the current study.

3.4.3. QUANTITATIVE RESEARCH⁴⁵

Quantitative research:

- aims to measure the human world objectively, test hypotheses and predict and control human behaviour
- more highly formalised and controlled
- concerned more with cause and effect and quantifying and measuring phenomena
- the researcher's role is of objective observer from the outside
- studies are focussed on specific questions and questions and hypotheses stay relatively constant throughout the study
- data collection procedures and methods are established in advance of the study and applied in a standardised manner

⁴⁵ AS De Vos. ...et al. *Research at grass roots for the social sciences and human service professions*. 2nd ed. (2002) 79-84 and E Babbie and J Mouton . *The practice of social research*. (2001) 48-53; J Brannen. Working qualitatively and quantitatively. In: Searle, C. ...et al. *Qualitative research practice*. (2004) 312-314.

- data collectors attempt to remain as objective as possible, avoiding adding their own interpretations
- statistical methods are used to indicate associations and relationships
- emphasis is on quantification and objectiveness
- literature review required specifically to have a clearer understanding of the problem and ensure not 'reinventing the wheel'
- quantitative researchers tend to choose a research design from what is available in advance
- pre-selection of data collection and analysis methods
- select a sampling plan
- pilot the study followed by the undertaking of the main research
- processing and analysis of data
- quantitative research operates within the positivist paradigm assuming the world to be 'a collection of observable events and facts that can be measured.'⁴⁶

Positivism and post-positivism effect a scientific and naturalist approach to research. Post-positivists though accept a reality that cannot be truly attained only approximated. Emphasis is on internal and external validity and often multiple methods to capture reality. They may use both quantitative and qualitative methods.⁴⁷ Dick⁴⁸ indicated that the library profession has indulged a largely positivist approach to research.

3.4.4. QUALITATIVE RESEARCH⁴⁹

Qualitative research:

- predominantly aims to study human behaviour and meaning associated with such behaviour in everyday life
- concerned with understanding rather than explanation; natural setting observation than controlled situations

⁴⁶ GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook*. (1997) 23.

⁴⁷ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *Sage handbook of qualitative research*. 3rd ed. (2005) 11.

⁴⁸ AL Dick. "Three paths to inquiry in library and information science: positivist, constructivist and critical theory approaches." (1993) 61(2) *South African Journal of Library and Information Science* 54-56.

⁴⁹ L Cohen, L Manion and K Morrison. *Research methods in education* 5th ed. (2000) 137-138; WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 145-146; J Brannen. Working qualitatively and quantitatively. In: Searle, C...et al. *Qualitative research practice*. (2004) 312-314.

- subjective investigation by the researcher as an insider
- attempt to gain first hand information and a holistic understanding of research subjects and phenomena
- adoption of a flexible strategy of problem formulation and data collection which evolves as the research proceeds
- research design develops as the research proceeds and the research design does not usually comprise a fixed plan or sequence of steps
- appropriate research design created to suit the research rather than adoption of a particular design
- qualitative methods such as participant observation and interviews often adopted
- instrumentation and measurement are used to reinforce or expand kinds of data; they are not the primary focus in themselves
- the qualitative researcher often starts with a research question and little else. Theory develops during the data collection process⁵⁰
- the first step is usually to select a paradigm which is the researcher's point of view or assumptions and beliefs that guide the research
- literature review is considered important for locating the problem in a body of theory, identifying intellectual bases for the research, identifies gaps in research and helps refine the research question
- qualitative research lies within the interpretive paradigm which has as its focus social constructs that are not static and thus difficult to measure precisely.

Gorman and Clayton⁵¹ defined qualitative research as follows:

Qualitative research is a process of enquiry that draws data from the context in which events occur, in an attempt to describe these occurrences, as a means of determining the process in which events are embedded and the perspectives of those participating in the events, using induction to derive possible explanations based on observed phenomena.

They noted that a key assumption of qualitative researchers was that researchers needed to get inside the world of participants in order to understand how participants viewed their world, and, the reliance on inductive reasoning rather than

⁵⁰ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 145-146.

⁵¹ GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook*. (1997) 23.

deductive.⁵² Denzin and Lincoln⁵³ indicated that qualitative research was difficult to define and employed no distinctive methods, theory or paradigm. They supported the characteristics indicated above, emphasising that qualitative research is multi-method; focuses on the natural setting of phenomena; uses a wide range of interpretive practices to understand; objective reality can never be captured and knowledge of phenomena is achieved through representations, and the qualitative researcher cannot be separated from his or her past, experiences and so on. In such research many different things are happening simultaneously. The researcher is highly reflective and introspective.

They identified three generic activities in the qualitative research process. These are a gendered, multi-culturally situated researcher, who approaches the world with a set of ideas, theory and ontology which in turn generates specific questions which are then examined in a particular way. The researcher adopts an interpretive stance.⁵⁴ Richardson⁵⁵ added an interesting insight to the methods of qualitative research in that she claims that the actual writing of qualitative research is a method of inquiry. Whereas the quantitative researcher's findings are clarified through tables and charts, in qualitative research the writing is a method of discovery and analysis and thinking. These ameliorate the artificial distinction between qualitative and quantitative data and analysis. Writing also aids the understanding of relationships between things and reflects the researcher's role as an insider: 'when the researcher and the data meet, discursive practices of the discipline are activated in the researcher's interpretive process.'⁵⁶

Denzin and Lincoln⁵⁷ have succinctly outlined the criticisms of the quantitative and the qualitative paradigms. What is truth and whose truth is acceptable is basically

⁵² GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook*. (1997) 29; WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 158.

⁵³ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 6-7.

⁵⁴ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 3-24.

⁵⁵ L Richardson. Writing: a method of inquiry. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 923-925.

⁵⁶ S Talja, H Keso and T Pietilainen. "The production of 'context' in information seeking research: a metatheoretical view." (1999) 35 *Information Processing and Management* 755.

⁵⁷ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *Sage handbook of qualitative research*. 3rd ed. (2005) 7-10.

the core of the debate. Qualitative research acknowledges the political terrains and traditions within which it operates. Rapid social change means that traditional deductive methodologies are inadequate and are insufficient as a source of understanding. What is clear is that among qualitative researchers there is no unified approach or acceptance of what constitutes acceptable qualitative research.

Denzin and Lincoln⁵⁸ saw the qualitative research process as containing a number of elements. The researcher identifies the political and ethical dimensions of his or her work and operates within a particular paradigm whose concomitant beliefs affect the way the researcher asks questions and interprets data, and acts. The research design guides what and how information will be collected depending on the research questions and strategies to be employed. Methods for collecting empirical material and data are then determined. Collected material is then analysed and interpreted and written up. Objectivity and integrity are critical in all research. The constructivist orientation to research which sits firmly in the qualitative domain, assumes realities to be constructed or co-constructed by individuals.

Truths or realities are created and the objective is to understand social relationships not just describe and explain. Objectivity as defined by the scientific method is not attainable: the research environment is value-laden. The researcher is an integral part of the research and attempts to understand and create meaning of the research situation.⁵⁹

In the current research, the author was an integral part of the research, not a detached observer. The active learning approach within a constructivist framework, required the author as teacher to be a facilitator and a coach, The unfolding of the module required the author to be an integral part of the process of learning that the students undertook, working with them not simply observing from a distance in a detached manner. The nature of the instructional design model adopted, which incorporated the use of an ill-structured problem, required the students to take some

⁵⁸ NK Denzin and YS Lincoln. Introduction: the discipline and practice of qualitative research. In: Denzin, NK and Lincoln, YS. *Sage handbook of qualitative research*. 3rd ed. (2005) 18-23.

⁵⁹ EG Guba and YS Lincoln. Paradigmatic controversies, contradictions, and emerging confluences. In: Denzin, NK and Lincoln, YS. *Sage handbook of qualitative research*. 3rd ed. (2005) 192-200; EG Guba and YS Lincoln. *Fourth generation evaluation*. (1989) 79-116.

responsibility for finding solutions and the author acted as a coach and was part of the resource bank provided during the module.

The immersion in the research adds to the value-laden nature of the research, a situation which has been criticised in the literature. Constructivists would argue that this immersion is necessary to understand the individual constructions of knowledge of the participants and the shared and consensual meaning constructed within the module. Objectivity and validity can still be maintained in terms of a thick description and use of different methods of data collection.

3.4.5. FORMATIVE RESEARCH METHODOLOGY

As regards instructional design in the learning situation, Reigeluth⁶⁰ referred to 'formative research' as a methodology as a kind of developmental research to improve design theory to inform practice. He indicated that traditional research methodologies are not particularly useful in terms of improving instructional design. With instructional design, he argued that the major concern is preferability: the extent to which one method better serves the attainment of particular outcomes. Thus the criteria are not those of validity and the like but rather for effectiveness: the extent to which the application of theory achieved its goal in a given situation; efficiency: time, resources and so on as well as appeal: how enjoyable the design was for both teachers and students. This methodology is very similar to an action research approach. The current study reflected a formative approach to the development of the Legal research module and was particularly concerned with the design of the programme. The current research grew out of several years of a process of experimentation and reflection in order to improve design and thus practice.

3.5. QUALITATIVE AND QUANTITATIVE MEASUREMENT: Validity, reliability of data and triangulation

This section considers the nature of validity, reliability and triangulation, the contested debates around them and how they are achieved in different paradigms.

3.5.1. INTRODUCTION

Measurement is undertaken in order to have a baseline from which to operate; as an indicator of the extent of something; to observe what is invisible and to provide information about reality. Before measurement can take place a construct, idea or concept must exist and be understood and distinguished from others; definable, as clearly as possible, in order to determine if measurement is possible; what features are to be measured and how that measurement can take place.⁶¹ The unit of analysis must also be determined. Measurement is more difficult in the qualitative arena because people's responses can be ambiguous, self conscious, and accuracy and honesty may be affected by a variety of factors.

As there are often multiple ways to measure a construct, it is imperative to determine the best fit between the measure and the conceptual definition and constraints facing the measure. The conceptual definition must exist in the first place. Conceptualisation is an integral part of how a qualitative researcher organises and interprets data and often arises from data. Ideas and evidence are mutually interdependent.⁶² Operationalisation is the process of how a researcher collects and views and interprets the data that becomes the basis for concepts.⁶³

Reliability and validity are deemed central to both qualitative and quantitative research but are interpreted differently in each approach. There are many types of both. 'Reliability is a necessary but insufficient condition for validity in research; reliability is a necessary precondition of validity.'⁶⁴ Validity in qualitative research may be reflected through rich description and scope of data and triangulation. Reliability is often associated with quantitative measurement in terms of replication of testing of measures. In qualitative research reliability is more difficult considering

⁶⁰ CM Reigeluth. *Instructional design theories and models: a new paradigm of instructional theory* . (2000) Vol 2, 633 – 637.

⁶¹ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 157-164; A Dick. "Three paths to inquiry in library and information science: positivist, constructivist and critical theory approaches." (1993) 61(2) *South African Journal of Library and Information Science* 56.

⁶² WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 157-164.

⁶³ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 157-164; E Babbie and J Mouton. *The practice of social research*. (2001) 128-134.

⁶⁴ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 105.

the naturalistic settings in which research occurs. It is seen as being accessible through accuracy and comprehensiveness of coverage.⁶⁵

Quantitative measurement is usually planned well in advance of the actual measurement and precision is important. Data is usually transformed into a numerical representation. Measurement techniques usually reflect the defining of a concept first and direct the gathering of the data. Qualitative researchers use a wider variety of techniques and create new measures whilst collecting data and do not necessarily convert data into numbers but data is measured in a variety of ways. Quantitative researchers follow a deductive route whilst qualitative researchers largely follow an inductive route. The current research used a variety of data collection instruments, some of which lent themselves to quantitative measurement, namely the pre- and post-test and the questionnaire, and to a lesser extent the learning styles inventory. The focus groups and observation provided qualitative data, not reducible to quantitative measurement.

3.5.2. VALIDITY

Validity can be defined as the extent to which a test, tool or technique measures adequately what it is supposed to measure.⁶⁶ No technique has universal validity and there are different kinds of validity for different tests.⁶⁷ The instrument must measure the concept in question and the concept must be measured accurately. Validity is dependent in the first instance on how the characteristic being measured is defined. In order to establish validity, there are various kinds of validities to be considered:⁶⁸

- content validity refers to adequacy of the content of the instrument, that is, the topics on a questionnaire. The sample of items must be adequate for the concept and the instrument must actually measure the concept. Content validation is a judgmental process.

⁶⁵ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 117-120.

⁶⁶ E Babbie and J Mouton. *The practice of social research*. (2001) 122; WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 167.

⁶⁷ GK Verma and K Mallick. *Researching education: perspectives and technique* (1999) 205; J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 30; AS deVos ...et. al. *Research at grass roots for the social sciences and human services professions*. 2nd ed. (2002) 166-168 8; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 105 -112; WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 167-171.

⁶⁸ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 105-112; MS Lewis-Beck. *Basic measurement*. (1994) 3-19; 122-124.

- face validity refers to the instrument appearing to be a relevant measure; respondents may resist an instrument which could affect results if it does not appear to measure that which it is supposed to.
- criterion validity involves multiple measurement where scores are compared with external criterion that measure the concept or behaviour being studied.
- construct validity refers to the extent to which an instrument successfully measures what it is supposed to measure – how and why does the instrument measure. Many constructs are not measurable so results are an interpretation.

Cohen, Manion and Morrison⁶⁹ indicated that validity is more a matter of degree than absolute certainty and that validity is as important in qualitative as in quantitative research. In qualitative research, validity may be expressed through the depth and richness of data, objectivity of the researcher and triangulation. Validity must be faithful to the traditions in which it operates. In positivist research, validity is dependent upon controllability, replicability, predictability, context neutral and so on. Naturalist or qualitative researchers see validity as born from the natural setting as the principal source of data, context specificity, data is socially situated, the researcher is involved and the key instrument of research, data are descriptive, process is the main concern, meaning and intention are critical and the data derives from the respondents. They noted various authors as preferring the concept of understanding or authenticity instead of validity.

Neuman⁷⁰ wrote that authenticity reflects the attempt to provide an honest and balanced account of the social situation and providing the inside view. Babbie and Mouton⁷¹ noted the ‘Munchausen objectivity’ or ‘doing justice to the study’ which requires critical evaluation of all the elements of the instrument and data collection. The intense involvement of the researcher and participants is sufficient for validation. They quoted Maxwell’s five kinds of validity in qualitative methods. These include:

- descriptive validity – the factual accuracy of the account

⁶⁹ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 105-108.

⁷⁰ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 171.

⁷¹ E Babbie and J Mouton. *The practice of social research*. (2001) 274-274.

- interpretive validity – the ability to net the meanings, suggestions and interpretations that situations have for participants. For this there is no equivalent in the positivist methodologies
- theoretical validity – the extent to which the researcher explains or provides theory (construct validity)
- generalisability – internal in particular, and external validity
- evaluative validity – the judgmental framework.

Gergen and Gergen⁷² discussed qualitative researchers' critique of positivist validity indicating that positivist validity does not accommodate the complexities of human action and experience. Their argument that there is no accurate way of representing the world does not help their support of alternative methods. Some have argued⁷³ that validity is supported and maintained by choosing an appropriate research design – appropriate time scale, selection of appropriate methodology for answering research questions and using appropriate instrumentation, tailoring where necessary to the situation, using an appropriate sample, using appropriate statistical treatments, accommodating construct, content and other validities, being alert to factors that cause invalidities.

Guba and Lincoln⁷⁴ described the basic differences between the traditional positivist and constructivist (or naturalistic, hermeneutical or interpretive) paradigms. In the positivist paradigm the 'ultimate test of the validity of any inquiry findings is that they should describe reality exactly.' The constructivist view is that truth rather than validity is the most 'informed and sophisticated construction on which there is consensus.' Constructions may not be able to be divided into measurable quantities. As reality is constructed it is impossible to describe reality exactly or as a single state of being. It is important to show the workings of the research.

Guba and Lincoln⁷⁵ noted that constructivist criteria for validity are concerned with authenticity, the elements for which are fairness, ontological authenticity,

⁷² MM Gergen and KJ Gergen. Qualitative inquiry: tensions and transformations. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 1025-1026.

⁷³ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 115-117.

⁷⁴ EG Guba and YS Lincoln. Paradigmatic controversies, contradictions, and emerging confluences. In: Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 191-215.

⁷⁵ EG Guba and YS Lincoln. Paradigmatic controversies, contradictions, and emerging confluences. In:

educational and catalytic authenticity and tactical authenticity. Fairness involves quality of balance in terms of all stakeholders' voices being included in the text. Ontological and educative authenticity reflect the raised awareness of participants and those they come into contact with as a result of the inquiry. Catalytic and tactical authenticity reflects the ability of inquiry to provoke participants to be involved in action and the researcher's capacity to train participants to become involved in action.

Validity is also concerned with credibility in terms of prolonged engagement with participants, persistent observation, researcher reflection, ongoing verification and cross checking.⁷⁶ Validity also involves reflexivity. Triangulation according to constructivists, is considered to be cross checking of data items and studying facets of the same problem rather than studying the phenomena from different angles as it is impossible to equate different methods.⁷⁷ Mouton⁷⁸ identified four criteria for validity. These are the validity of the underlying theory; measurement validity; reliability as being the 'authenticity and representativeness of sources used in the inquiry'; and inferential inquiry which concerns whether inferences drawn from data are justified.

The current research applied acknowledged theory that had received widespread consensus, investigation and had sound philosophical and practical underpinnings. The author was fully immersed in the research and the participants were also an integral part of the research. The voices of participants and researcher were both heard. Various methods appropriate to the collection of different kinds of data were used to reflect different facets of the problem and provide a rich description of the case. The data was drawn from the particular setting in which the participants and the module were situated as well as from the participants themselves thus providing authenticity in terms of situation, participant activities and allowing for a balanced account of the situation of the case.

Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 205-207.

⁷⁶ EG Guba and YS Lincoln. *Fourth generation evaluation*. (1989) 233-243.

⁷⁷ EG Guba and YS Lincoln. *Fourth generation evaluation*. (1989) 241.

⁷⁸ J Mouton. *Understanding social research*. (1996) 109-113.

Some authors argue for triangulation as a means of ensuring validity. Cohen, Manion and Morrison and others⁷⁹ have noted that triangulation permits the broader and deeper examination and understanding of the complexity of human behaviour yet is not such a commonly used method as one would suppose. Triangulation they said, between methods, aids validity whilst triangulation within methods assists reliability.⁸⁰

The current research adopted a range of data collection methods allowing for triangulation which supported validity in terms of a rich description of the case and the ability to view the case from multiple perspectives. The data arising from the different data collection methods complemented and supported each other.

Internal and external validity are dominant in experimental research and refer primarily to the extent of errors internal to the project design and the generalisation of findings from the specific study respectively.

3.5.3. RELIABILITY

Neuman⁸¹ stated that reliability is a necessary although not sufficient condition for validity. Validity and reliability complement each other but on occasions may conflict. Reliability can be more easily achieved the more precise and observable the measure. Reliability refers to the extent to which an instrument produces the same results irrespective of how and when it is used; dependency and the consistency or replicability of results over time.⁸² Wellington noted that reliability is contentious as it is a judgement call and in reality exact replicability is impossible.⁸³ Cohen, Manion and Morrison⁸⁴ referred to three types of reliability:

- the first is stability. This they said is the consistency over time and over similar samples. Determining the time frame is the issue

⁷⁹ EG Guba and YS Lincoln. Paradigmatic controversies, contradictions, and emerging confluences. In: Denzin, NK and Lincoln, YS. *The Sage handbook of qualitative research*. 3rd ed. (2005) 208, 112-115; D Hopkins. *A teacher's guide to classroom research*. 3rd ed. (2002) 133-134; E Babbie and J Mouton. *The practice of social research*. (2001) 275 -276.

⁸⁰ L Cohen, D Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 114-115.

⁸¹ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 171-172.

⁸² GE Gormon and P Clayton. *Qualitative research for the information professional: a practical handbook*. (1997) 57; J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 31; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 117-120.

⁸³ J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 31.

⁸⁴ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 117-119.

- reliability as equivalence refers to achieving reliability through the use of alternative or equivalent forms of a test or data gathering instrument or, several researchers entering data in the same way. Reliability as consistency refers to the use of an instrument twice through the split-half method. This type of reliability is consistent with the positivist paradigm. They also refer to debates in the literature as to whether reliability is achievable in qualitative research
- replication is more easily achievable with quantitative research based on the ability to control situations and phenomena. They say that reliability can be seen as a 'fit between what researchers record as data and what actually occurs in the natural setting that is being researched'⁸⁵ thus taking cognisance of accuracy and comprehensiveness, honesty and allowing for confirmation of results.

In the current research reliability was seen to be achieved through the comprehensiveness of data collection and range of data collection methods. The findings from the various data collection instruments supported each other, suggesting the accuracy and thus reliability of the instruments used to gather data.

3.5.4. TRIANGULATION

The multimethod approach or triangulation is characteristic of qualitative research.⁸⁶ This is because objective reality can never be captured and knowledge is obtained via representation. Triangulation is not a method of validation but an alternative to it. Richardson⁸⁷ criticised the emphasis on triangulation as it presumes that there is a fixed point or object that can be triangulated. Postmodernists she argued, assume there to be more than three sides from which to view the world and one crystallizes rather than triangulates. This would appear to suggest that triangulation is very reductionist and does not accommodate the fact that the object of research is multifaceted, non static and reflects the researcher's 'angle of repose'. Triangulation

⁸⁵ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 119.

⁸⁶ NK Denzin and YS Lincoln. *Handbook of qualitative research*. 2nd ed. (2000) 5; GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook*. (1997) 32; J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 23-24; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 112-115.

⁸⁷ L Richardson. Writing: a method of inquiry. In: NK Denzin and YS Lincoln. *Handbook of qualitative research*. 2nd ed. (2000) 934.

means looking at something from different angles. Bloor ...et al and others⁸⁸ saw the use of multiple methods as good research practice rather than triangulation and that scientific replication is not possible via an array of methods. They noted that no two methods can be equated with each other and data from different methods are not directly comparable. Multiple methods rather serve to deepen and enrich understanding about a topic or situation.

The types of triangulation have been well elucidated in the literature ⁸⁹ as being triangulation of measures; triangulation of observers is the use of multiple observers to obtain a more complete picture of a setting in terms of observers' characteristics; triangulation of theory is when a researcher uses multiple theoretical perspectives at the planning stage and triangulation of method, possibly the most common, is the employment of multiple methods either simultaneously or sequentially, to gather information. Other kinds of triangulation are feasible with regard to data collection over time; space; investigator triangulation and within and between methods.

Silverman⁹⁰ indicated that an aggregation of data, often used to support triangulation, does not necessarily produce a more complete picture as different methods of data collection are not necessarily comparable. Stake⁹¹ noted that in case studies, triangulation 'helps to identify different realities.' The various methods to be employed in the current research supported convergence or crystallisation or triangulation.

Triangulation is viewed by some then as improving validity of research. As mentioned earlier, constructivists view triangulation as a cross check and a way of examining facets of a problem rather than examining a problem from different angles. The current research employed a variety of methods that collectively provided a thick description of the case and provided a range of perspectives of the

⁸⁸ M Bloor ... et al. *Focus groups in social research*. (2001) 12-15; D Silverman. *Doing qualitative research*. 2nd ed. (2005) 121.

⁸⁹ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 124-125; L Cohen, D Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 113-114.

⁹⁰ D Silverman. *Doing qualitative research*. 2nd ed. (2005) 121; R Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 454.

⁹¹ R Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 454.

realities. As some of the types of data collected were interconnected, they lent themselves to triangulation in the positivist sense.⁹²

3.6. DATA COLLECTION AND ANALYSIS

Holliday⁹³ described data in qualitative research as a 'body of experience' which includes not just statistical information but descriptions as well. Data is that provided by participants as well as that seen, heard and described by the researcher. The nature of qualitative data collection cannot always be pre-determined but may present itself as the research unfolds. In social settings different types of data may be interconnected thus lending themselves to triangulation Problems arise in terms of what data to collect and how much and then how to present and interpret the data. Which data is important should emerge during the course of the research. Quantity and coverage do not automatically equate with validity. The right data must be collected and must cover the facets of the research and allow good analysis and a bridge between theory and fieldwork. The data when put together must make meaning. It is important to select appropriate instruments or methods for collecting data.

The nature of the data collection method affects how data is presented and processed. Questionnaires for example lend themselves to computation whilst focus groups require a more textual analysis of comments. Data has to be analysed and interpreted.

In the current research data was collected via a range of methods. A survey of websites of law faculties revealed the extent to which skills based modules exist. A follow up questionnaire was designed to obtain information about content, process and methods in these modules. A questionnaire was administered to the students enrolled in the LRWR module to collect basic knowledge about the demographics and work habits of the students as well as their knowledge of information sources and processes. This was supported by a learning styles inventory which is administered as a set of statements or questions to which students apportion a response from a selection offered. Knowledge derived from the examination of the

⁹² A Holliday. *Doing and writing qualitative research*. (2002) 75.

⁹³ A Holliday. *Doing and writing qualitative research*. (2002) 69-70.

literature and published research provided guidelines and information for the development of the module. Focus groups were chosen to elicit detailed attitudes and responses towards the module. As it was not feasible to use a control group, a pre and post-test provided some quantitative measure of learning and understanding before and after the module.

Observation in the classroom situation was used as a practical way to construct a sense of the extent to which students participated in the active learning process. The quantitative data was subject to computer analysis using Excel and SPSS. The qualitative data from focus groups and the reflection exercise was analysed using conceptual content analysis and like responses grouped together.

Writing about data involves the articulation of the results of data analysis, what it means in terms of the research questions and how the data acts as evidence to support argument.⁹⁴ It has been noted that in terms of an interpretative rather than objectivist approach to the context within which research takes place, data is viewed as *representing* social reality rather than merely describing it. Thus data is not seen as merely providing objective facts but facts and information reflecting meaning and values, idealistic as well as realistic of participants and researcher.⁹⁵ Chapters six and seven present the data and its analysis.

3.7. THEORETICAL APPROACH

Silverman⁹⁶ expressed the opinion that in critiquing social science and qualitative research the 'discovery of new facts is often secondary to the assessment of findings in relation to theoretical perspectives from which the research derives and to which may contribute.' He further claimed that theories provide an impetus for research and research questions are theoretically informed.⁹⁷ 'Theories are used to explain *why* specific events and patterns of events occur as they do,'⁹⁸ hence may change over time as research reflects new evidence to the contrary. Many theories

⁹⁴ A Holliday. *Doing and writing qualitative research*. (2002) 98-100.

⁹⁵ S Talja, H Keso and T Pietilainen. "The production of 'context' in information seeking research: a metatheoretical view." (1999) 35 *Information Processing and Management* 755.

⁹⁶ D Silverman. *Doing qualitative research*. 2nd ed. (2005) 96.

⁹⁷ D Silverman. *Doing qualitative research*. 2nd ed. (2005) 99.

⁹⁸ J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 25-29; D Silverman. *Doing qualitative research*. 2nd ed. (2005) 99.

are thus descriptive and quite abstract in nature. Descriptive theories do not provide means to achieve goals.⁹⁹ They are also a way of seeing things so often involve models or frameworks to help visualise events or patterns simplistically. Theory may help explain and predict phenomena. Existence of theory shapes the way things are perceived. Theory may well determine observation and data collection or emerge from data collection – grounded theory. The nature of the research and area being investigated may well indicate which way theory is employed in a study. One of the advantages of grounding a study in theory is to provide an informed framework and build on earlier research to add credence to or validate a theory. How theory is used is the issue for Neuman¹⁰⁰ and he indicated that a theory's primary function is to explain; indicate how concepts are related to each other and any causal mechanisms that explain relationships between variables. Theory situates a single study, provides direction and basic assumptions.

Constructivist approaches in particular¹⁰¹ support the views that all theory and methodologies are value-laden, there is no such thing as theory-free observation, theories are guidelines and they do not address everything one wants to know. Where theory underpins research then, the research assumes some of the values embedded within the theory. Snelbecker¹⁰² concluded that theories are important for the 'added value' they provide for research and for providing useful representations of phenomena.

In the current study, problems and ensuing questions indicated that a new approach to the module needed to be considered in the light of not just information about teaching, but the underlying theories as regards teaching and learning and IL. Once an initial literature review had been undertaken and theoretical considerations reflected upon, the research questions could be refined. It was considered by the author that a theoretical framework would be necessary for the study. 'A theoretical

⁹⁹ CM Reigeluth . What is instructional design theory and how is it changing? In: Reigeluth, CM.

Instructional-design theories and models: a new paradigm of instructional theory. (1999) Vol. 2, 5.

¹⁰⁰ WL Neuman. *Social research methods: qualitative and quantitative approaches.* 4th ed. (2000) 40; 46-59.

¹⁰¹ EG Guba and YS Lincoln. *Fourth generation evaluation.* (1989) 63-66; JK Smith and P Hodkinson.

Relativism, criteria and politics. In: Denzin, NK and Lincoln, YS. (eds.). *The Sage handbook of qualitative research.* 3rd ed. (2005) 919; GE Snelbecker. Some thoughts about theories, perfection and instruction. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory.* (1999) Vol. 2, 31-45.

¹⁰² GE Snelbecker. Some thoughts about theories, perfection and instruction. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory.* (1999) Vol. 2, 43-46.

framework is a structure of concepts which exists in the literature, a ready made map for the study.’¹⁰³ Adoption of a theoretical framework consolidated the many strands relevant to teaching IL namely aspects of learning, teaching, methods, process and approaches to delivery from various schools of thought. Within this broader theoretical framework, the author broadly ascribed to the active learning approach in terms of teaching and learning. A constructivist instructional design theory was adopted. Instructional design theories differ from descriptive theories in that they are design oriented providing guidance on how to achieve goals and identify methods of instruction, rather than deeper understandings about effects that are a result of phenomena. Descriptive theories may well help explain why a particular design theory may work.

3.8. CASE STUDY

This section considers the definition and characteristics of the case study, problems and debates associated with generalisation from a case study, types of cases study, their design and why the current research was undertaken as a case study.

3.8.1. DEFINITIONS, CHARACTERISTICS AND USES

Stake¹⁰⁴ provides one of the best overviews of case study research and variations of his book have appeared in a number of other publications. Stake¹⁰⁵ indicated that case studies have become one of the commonest ways of undertaking qualitative research. The study of a particular situation may require a range of data collection that is not necessarily disposed towards quantitative analysis and process may be as important as outcome. In a collection of essays, Ragin¹⁰⁶ drew attention to the fact that the word ‘case’ has been interpreted in many ways and there is no universally accepted definition. His view is that what is important is asking the question ‘what is this a case of?’ This may only become apparent towards the end of the research.¹⁰⁷ Stake disagreed and said that ‘a case study is both a process of

¹⁰³ P Liehr and MJ Smith. *Frameworks for research*. (2000). 13.

<http://homepage.psy.utexas.edu/HomePage/Class/Psy394V/Pennebaker/Reprints/Liehr%20Class.doc>.
Accessed: 6.6.2005.

¹⁰⁴ RE Stake. *The art of case study research*. (1995).

¹⁰⁵ RE Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 435-454.

¹⁰⁶ CC Ragin and HS Becker. *What is a case? Exploring the foundations of social inquiry*. (1992) 3-9.

¹⁰⁷ CC Ragin and HS Becker. *What is a case? Exploring the foundations of social inquiry*. (1992) 6.

inquiry about the case and the product of the inquiry' and the interest may be in the case itself.¹⁰⁸ Ragin¹⁰⁹ argued that the:

primary goal is to link the empirical and the theoretical – to use theory to make sense of evidence and to use evidence to sharpen and refine theory....cases are invoked to make the linking of ideas and evidence possible.

The case study allows for observation over a period of time. Gorman and Clayton¹¹⁰ described the case study approach as 'the application of specific qualitative research methods in a specific setting.'

A case is characterised by the fact that, simple or complex, it is a 'bounded system'¹¹¹ with an identity, a geographic and temporal nature, working parts, characteristics and behaviour patterns and usually deals with a single unit. The case 'affords a complete and vivid picture of the interrelated factors constituting the situation,'¹¹² a thick description. Case studies are usually in-depth investigations which may involve the study of multiple variables that have a rich context. In qualitative research, cases are selected from naturally occurring social situations, allow for the identification and analysis of particular social practices and processes that initiate change, allow for the discovery rather than necessarily testing of causal relations, application of treatments as in the instance of some educational research, and may enable the means by which causal relations can be uncovered.¹¹³ Case studies often involve the collection of unstructured data and qualitative analysis but may include quantitative data collection where appropriate.¹¹⁴ They are particularly useful as an exploratory technique.¹¹⁵

¹⁰⁸ RE Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 444.

¹⁰⁹ CC Ragin and HS Becker. *What is a case? Exploring the foundations of social inquiry*. (1992) 225.

¹¹⁰ GE Gorman and P Clayton. *Qualitative research for the information professional: a practical handbook*. (1997) 47.

¹¹¹ RE Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 444; AS de Vos. .et. al. *Research at grass roots for the social sciences and human services professions*. 2nd ed. (2002) 275; L Cohen, L Manion and K Morrison. *Research methods in education* 5th ed. (2000) 181.

¹¹² R Shaw. Case study method. In: David, M (ed.) *Case study research*. (2006) vol 1, 3.

¹¹³ R Gomm, M Hammersley and P Foster. *Case study method: key issues, key texts*. (2000) 237.

¹¹⁴ H Simons. "The paradox of case study." (1996) 26(2) *Cambridge Journal of Education* 233.

¹¹⁵ RR Powell. *Basic research methods for librarians*. (1970) 49.

Holliday¹¹⁶ proposed that particularly in education research, the case study reflects ‘unfinished’ research, which is not problematic as it is impossible to study all features of a case and the improvement of educational practice does not require completeness in research. The current research reflects this recursive practice and represents a stage in ongoing research.

The characteristics of case study research and the criticisms of such research have been thoroughly explored in the literature.¹¹⁷

3.8.2. CASE STUDY GENERALISATION

It has been argued that a case study aims towards a different kind of general conclusion, designed to produce theories.¹¹⁸ One could also argue that as a case study is often situated within a theoretical framework, it is contextualised within the generalisation and the result of the case study will add to or negate the general body of knowledge. Simons¹¹⁹ referred to this as the paradox of the case study. Case studies are contextualised not context-bound.¹²⁰ The case study enables the detailed study of how a treatment works: case study research allows one to ‘see’ causal mechanisms at work. The case study will also however reveal the distinctive nature of the case. A case study can often be viewed as one in a continuum of studies as is the instance of the current case study of the LRWR module. Others¹²¹ argue that inferences of generalising are tentative at best, really offering confirming or non confirming evidence, never evidence that is conclusive and that generalising is a matter of degree. Kennedy¹²² argued that in educational studies, the feasibility of generalising from a single case is dependent on not only the relationship between the attributes of the case and the larger population, but also the treatment itself or the hypotheses or study questions.

¹¹⁶ A Holliday. *Doing and writing qualitative research*. ((2002)

¹¹⁷ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 182.

¹¹⁸ R Gomm, M Hammersley and P Foster. *Case study method: key issues, key texts*. (2000) 234.

¹¹⁹ H Simons. “The paradox of case study.” (1996) 26(2) *Cambridge Journal of Education* 227.

¹²⁰ MM Kennedy. “Generalizing from single case studies.” (1979) 3(4) *Education Quarterly* 671.

¹²¹ MM Kennedy. “Generalizing from single case studies.” (1979) 3(4) *Education Quarterly* 661-678.

¹²² MM Kennedy. “Generalizing from single case studies.” (1979) 3(4) *Education Quarterly* 664.

Flyvbjerg¹²³ claimed that it is only within a context that anomalies might be discovered but at the same time the case study may support general rules and propositions. He indicated that within learning itself the case study is important for understanding how general rules apply. He also claimed that case studies are as good for testing as generating hypotheses and as much may serve to elucidate falsifications in researcher preconceived notions as support bias towards verification.

Treatments are never developed in a vacuum. In terms of attributes, what contributes to generalisability is how similar the attributes of the case are to the general population; the range and number of relevant attributes that are similar within the overall population and the case and the number of unique attributes emerging from the case study – fewer unique attributes means less interference with generalisation. In terms of the treatment, Kennedy¹²⁴ claimed that when the case study incorporates attributes which the treatment is designed to influence such as aspects of undertaking legal research, as well as those attributes known from prior knowledge that affect the above such as reading and writing competence; as well as attributes considered to be relevant to the required outcome hypothesised by other research, the possibilities for generalisation are increased. The case study may be able to document not only the effects of a treatment but also the reasons for those effects.

The current research into the LRWR module served primarily to develop and investigate a treatment with consideration of a range of attributes. These were selected with regard to prior knowledge of research and application of that research and the research formed part of a continuum of studies into legal research and general teaching and learning practices.

Kennedy¹²⁵ drew an analogy between the generalisation of legal principles in case law and case studies. Just as in law, despite the fact that no two cases are ever exactly the same, principles from a single preceding case will be applied to a new

¹²³ B Flyvbjerg. . Five misunderstandings about case-study research. In: Seale, C...et al. (eds). *Qualitative research practice* (2004) 421-422.

¹²⁴ MM Kennedy. "Generalizing from single case studies." (1979) 3(4) *Education Quarterly* 661-678.

¹²⁵ MM Kennedy. "Generalizing from single case studies." (1979) 3(4) *Education Quarterly* 671-675.

case where there is a high degree of similarity. With case studies, inferences can be drawn from one case to others and ideas may become principles.

Flyvbjerg¹²⁶ critiqued some of the criticisms levelled at case study research. He argued that case studies allowed for the realisation of context-dependent knowledge that is as important as context-independent knowledge. It is only within a context that anomalies might be discovered. At the same time the case study may support general rules and propositions.

3.8.3. TYPES OF CASE STUDIES

Stake¹²⁷ identified three types of case study:

- the intrinsic case study is undertaken because the researcher wishes to have a better understanding of the particular case. The case itself is of interest not necessarily what it represents
- the instrumental case study is undertaken when the purpose is to provide insight into an issue and draw generalizations from it. The case itself is not the main interest. Silverman¹²⁸ referred to the instrumental case study in which 'a case is examined mainly to provide insight into an issue or revise a generalization' which best suits the current study of the Legal Research Writing and Reasoning module
- collective cases study considers a number of cases, instrumental in purpose.

Stake indicated that too much case study work is rejected because of the lack of generalisability. He claimed that often it is the particular that needs to be emphasised – the thick description of the situation and its applicability within that world. Wellington¹²⁹ quoted Wolcott and Mitchell respectively as saying that whilst each study is unique it is not so unique that its lessons cannot be applied more broadly. Even if a case study cannot be used to create generalisations, it can be

¹²⁶ B Flyvbjerg. Five misunderstandings about case-study research. In: Seale, C...et al (ed.). *Qualitative research practice*. (2004) 420-434; supported by PB Foreman. "The theory of case studies." (1948) 26 (4) *Social Forces* 410 -413.

¹²⁷ RE Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 445-446; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 182-183 review various ways in which types of case studies have been classified.

¹²⁸ D Silverman. *Doing qualitative research*. 2nd ed. (2005) 127; R Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 445.

¹²⁹ J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 99.

used to explore them. The author would argue that the current study is predominantly an instrumental study as the case provides the opportunity to examine the issue of an active learning approach to learning and teaching and the application of an information literacy paradigm to teaching a research module. The context of the current study that of the legal research module is however of initial interest and is of interest in itself because of the specific context of the module. The current study is contextualised within the generalisations of case study and IL research.

An important emphasis in case study research in particular is context. It has been argued that context is often viewed uncritically whilst presuming to be important. Context, when viewed objectively is generally presumed to be the backdrop or frame of reference against which an object is studied and is accompanied by assumptions such as:

- the context can be described as a number of entities
- knowledge is specific and temporary
- reality is discontinuous over time and space
- knower and known are interdependent
- context is an independent entity
- context involves process and product
- there are multiple interdependencies in any situation
- context is a source of meaning.

This objectivist view of context implies that language sufficiently describes the realities and facts objectively, the effects of context are unproblematic, the more variables within the context that can be taken into account, the greater the certainty about the research object, and data and information from within the context provide a description of reality.¹³⁰

When viewed from an interpretivist stance, the context is seen as: ' the crossroads where the researcher, as a carrier of a particular theory, and the data intersect. In the meeting the researcher's contemporary understandings and the multiple

¹³⁰ S Talja, H Keso and T Pietilainen. "The production of 'context' in information seeking research: a metatheoretical view." (1999) 35 *Information Processing and Management* 752-756.

potentialities of the data are intertwined.¹³¹ The context is inclusive of meanings and values that are constantly being constructed and reconstructed as are those of the researcher.

3.8.4. GENERAL DESIGN PRINCIPLES FOR A CASE STUDY

Stake¹³² stated that case studies have a conceptual framework organised around a small number of research questions; a purpose whose issues attend to the dominant theme, and how these issues affect the planning and execution of the inquiry. Consideration of what issues to attend to depend on the purpose of the case study and what can be learned from the opportunities presented by the study. Not everything can be considered and the researcher has to make choices. Following on from determining a topic to research, issues pertaining to the topic must be identified from which research questions will emanate. The framework for the case study is a result of a literature review and researcher experience. A case study is always located within a particular context and thus this context is described in detail in order to be able to understand and interpret the case.

The current research was based on a set of topical interrelated questions to do with the IL paradigm, the nature of teaching and learning, the current higher education scenario in South Africa and the contested terrain of legal skills in law schools. The issue questions that emerged and became more refined over time focused on content, process and feasibility of an active learning approach to teaching and learning legal research to a large class within an IL paradigm. It was acknowledged that it was impossible to study all characteristics of learners. Those characteristics pertaining to learning styles; basic demographic data, computer skills and some habits relating to academic studies and limited prior knowledge were the focus of the study of the learners. The effect of the range of characteristics such as gender and race were not considered specifically. In terms of teaching, the focus was on those factors relating to active learning. A particular instructional design was pursued.

¹³¹ S Talja, H Keso and T Pietilainen. "The production of 'context' in information seeking research: a metatheoretical view." (1999) 35 *Information Processing and Management* 756.

¹³² RE Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 448. See also E Babbie and J Mouton. *The practice of social research*. (2001) 282-283.

Multiple sources of data are often a feature of case studies, grounded in the ideas of convergence and replication or triangulation.¹³³ This may increase the study's reliability although different sources of data are not necessarily comparable. One of the challenges to case study research is the interpretation of findings. Usually large quantities of data are collected and need to be organised and communicated. Patterns emerge from data and explanations are generated. Findings are tested against previous knowledge. A case study will probably depict commonality with prior studies but also distinctiveness. Stake¹³⁴ noted that triangulation is important in case studies. Not only do data sources need to be identified, but a data gathering plan drawn up. Data gathering is largely dependent on the definition of the case, research questions, identification of helpers, data sources, allocation of time, expenses and intended reporting.¹³⁵

In the current research the research questions indicated that various data gathering methods needed to be used in order to accommodate the data required by the various research questions. Cohen, Manion and Morrison¹³⁶ acknowledged that the necessity for reliability and validity with case study research is not easily obtainable and provide a useful checklist of questions that assist in terms of assessment of the research to ascertain reliability and validity. Three characteristic phases of case study: starting with a wide field of focus, progressing to more refined and narrowed focus as key foci are identified and drafting an interpretation which may or may not have to be checked by participants.¹³⁷

The current study was undertaken as a case study because it focused on an issue within a particular module within a particular context with a distinct and fixed group of participants. The purpose of the study was to develop and evaluate an active learning approach for the teaching and learning of legal research skills. By way of information to situate the study and understand how the participants might respond to the module, a wide range of information was sought – about the demographics of the participants; their prior knowledge and understanding of the study of law and

¹³³ RE Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 453-454.

¹³⁴ RE Stake. Qualitative case studies. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 443-444.

¹³⁵ RE Stake. *The art of case study research*. (1995) 51-52.

¹³⁶ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 185.

their learning styles and strategies. In terms of the teaching and learning theory, this information was also required. Multiple methods were required to obtain the wide range of information required and were chosen in terms of appropriateness of method for knowledge sought. The broader context of the study required a survey, in postal format, of the position of legal research in law schools in the country. The questionnaire was informed by information available from institutional websites; this reduced the number of background questions.

- In terms of the first research question, there was a need to situate the current research within the South African higher education legal education environment. This required ascertaining the extent to which legal research or equivalent modules (or components of modules) existed as well as the characteristics of these modules. This information was best gleaned from a survey of law school websites at higher education institutions as well as a questionnaire to the law schools as websites often do not provide detail about the nature of teaching and assessment methods or content. Thus a survey of law schools websites was undertaken. A questionnaire was designed, piloted and emailed to appropriate persons at law schools. The broader national higher education policy imperatives and requirements underpinning law school curricula were ascertained through a literature review and discussions with the Dean of the UKZN Law Faculty who was a member of the South African Law Deans Association, SALDA.
- The development of the module itself was one of the purposes of the study. Design, implementation and evaluation of the module required an understanding of the theoretical basis of teaching, learning, legal research and information literacy. Thus in terms of research question two, the theoretical background was explored via a literature review which then informed the development of a conceptual and theoretical framework for the module. Experience as a result of an action based research approach over a number of years also informed the development of the module.
- Underpinning the approach to the module was the need to design it from an information literacy paradigm. This required an understanding of, and

¹³⁷ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 189.

assessment of, the history and current status of information literacy as a concept and a practice and the issues around design, implementation and assessment of IL programmes as outlined in research question three. This was best undertaken by a comparative literature review.

- Given the considerable cross-disciplinary attention given to learning styles and learner characteristics that affect teaching and learning approaches and activities, the nature of deep learning and active learning within the context of legal research and problem-solving and the large class situation needed to be investigated. These aspects formed the basis of research questions four and five.
 - These research questions were attended to in terms of a literature review in the first instance to establish the nature of learning styles, learner characteristics and active learning in general and then with particular reference to the legal education environment
 - To examine and apply this theoretical background and research in order to develop the module, a number of research activities were undertaken. A questionnaire was administered to the Legal Research Writing and Reasoning class to understand some of the characteristics of the class as learners and their skills and knowledge apropos the intended content and approach of the module. This was considered the most appropriate method as it allowed for anonymity and a range of open and closed questions
 - A learning styles inventory was also administered to understand the learner characteristics of those registered for the module and thus inform the focus of the module's teaching and learning activities with regard to learning styles. The reasons for the choice of the particular instrument are explained in section 2.3.5.3. The literature review revealed only one other reported case of the implementation of this instrument within the library environment
 - A reflection exercise and focus groups were deemed appropriate instruments for gathering data concerning the extent to which deep learning had occurred and been experienced by the participants, and their opinions concerning the active learning approach. These two

instruments were less structured than other instruments used and provided the participants the opportunity to express opinions and thoughts as freely as necessary.

- In order to ascertain appropriate and feasible assessment methods for the module in terms of content, learning styles and characteristics, and demands of legal research, as per research question five, a literature review was undertaken. This was considered in conjunction with the practical research into learning styles and characteristics, the nature of legal research and the reviewed literature as regards IL, learning and teaching. A range of assessment activities were designed, applied and evaluated.

3.9. DATA COLLECTION INSTRUMENTS AND METHODS

This section presents the specific data collection instruments applied in the research, the characteristics of each and the rationale for their use. The instruments used were:

- a questionnaire for conducting a survey of South African law schools
- a questionnaire administered to the LRWR class to ascertain demographic data and information concerning work habits
- a pre- and post-test which was used as one method of establishing the influence of the module on the acquisition of knowledge and skills of the class
- a learning styles inventory
- observation of group work in some of the classes
- a reflection exercise
- focus groups to investigate the response of students in the module to the active learning approach adopted in the module.

3.9.1. SURVEY OF SOUTH AFRICAN LAW SCHOOLS

This survey was undertaken in two parts. The author solicited information about the existence of and nature of skills modules at South African law schools, as far as was possible from their websites. This was followed up by a questionnaire to ascertain detail about legal method and in particular legal research modules or components. The questionnaire comprised a combination of closed and open questions. This questionnaire was piloted with two members of the local law school. The author

established appropriate contact persons from the websites as well as telephonically where possible, to e-mail the questionnaires to. The questionnaire was e-mailed with a covering letter which explained the research, assured anonymity of final results and provided the contact details of the author's supervisor. Follow up reminders to complete the questionnaires were undertaken on two occasions. No replies to the questionnaire were received.

3.9.2. QUESTIONNAIRES

Questionnaires are a useful instrument for collecting data under particular circumstances. These circumstances are described below as well as the nature of questionnaires, their design and types of questions that are used. Advantages and disadvantages that can occur with the use of a questionnaire are discussed. The rationale for the use of the questionnaire in the current research is provided.

3.9.2.1. Introduction

Questionnaires are a useful instrument for gathering information from a large number of subjects, about practices in particular, and attitudes.¹³⁸ 'A question communicates an inquiry ...and is a form of interpersonal communication'.¹³⁹ There are two fundamental kinds of questions in a questionnaire – those that describe the respondents in terms of their status with respect to a whole range of factors, and those questions that provide information about the topics under investigation, the substance of the questionnaire. Use of such an instrument requires careful planning. It must be an integrated whole and questions must be relevant to the topic at hand. The nature of the research questions and practicalities determine the selection of instrument for gathering data.¹⁴⁰ A questionnaire needs to be seen as one possible method of obtaining information in a qualitative study.¹⁴¹ Holliday¹⁴² has indicated that qualitative research involves discovering the differentiating characteristics and culture of the group under study and finding out

¹³⁸ ES Grassian and JR Kaplowitz. *Information literacy instruction: theory and practice*. (2001) 282; B Gillham. *Developing a questionnaire*. (2000) 2, 5; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) ch. 14.

¹³⁹ B Gillham. *Developing a questionnaire*. (2000) 49-50.

¹⁴⁰ RA Peterson. *Constructing effective questionnaires*. (2000) 1, 3.

¹⁴¹ B Gillham. *Developing a questionnaire*. (2000) 1-4; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 246; UKZN. School of Education, Training and Development. *Understanding research: an introduction to reading research*. 2nd ed. (2004) 85.

¹⁴² A Holliday. *Doing and writing qualitative research*. (2002) 12.

what participants have to say not just what the researcher sees and interprets. Qualitative research is about building a picture by exploring and catching glimpses of situations and interpreting them. The questionnaire is one means of exploring and collecting data to help build the picture. The nature of the social setting being investigated shows the interrelationship between researcher and participants. Thus a questionnaire can be a useful instrument in qualitative research in terms of helping establish the characteristics of the group.

A questionnaire was administered to the LRWR class as a means of obtaining background information about the characteristics of the class. Information about their attitudes towards and behaviours with respect to certain academic activities was also sought as this would influence the content and teaching and learning activities within the module. Given the size of the class and the need to obtain information quickly, a questionnaire administered during a class period was considered the most appropriate means of collecting this information. The questionnaire assured anonymity. Administering the questionnaire during a class period allowed for the researcher to answer questions relating to the questionnaire.

An e-mail questionnaire was sent to the law schools in South Africa as a means of establishing the broad nature of legal research and legal skills courses. The e-mail method of administering the questionnaire was considered the most appropriate as it would give the respondents the opportunity to answer in their own time, be less intrusive and would also be cheaper. The appropriate persons to answer the questionnaire was established as far as possible telephonically and then these persons were contacted directly where possible. This helped with knowing who to contact in terms of follow up on the return of the questionnaires. Anonymity of participants was assured in the covering letter to the questionnaire and in the presentation of data.

The advantages and disadvantages of questionnaires have been well documented in terms of cost, distribution and response rates, nature and honesty of responses, shortcomings of different types of questions and order of questions.¹⁴³

¹⁴³ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 4th ed. (2000) 251-273; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 245-266; J Wellington.

3.9.2.2. Types of questions

Two broad types of questions are open and closed. The advantages and disadvantages of these two types of questions in terms of design, administration, reception and interpretation by respondents, data collection and analysis are well documented.¹⁴⁴ The LRWR questionnaire used a combination of both closed and open questions. For the open ended questions, responses were collated and interpreted and then allocated to categories for data inputting.

The LRWR questionnaire was piloted with four students. This questionnaire was administered during the first lecture of the module so all those in attendance were able to complete a questionnaire. It was necessary to include as many students as possible for the data to be useful. The students had the research explained to them, the reason for the questionnaire and the voluntary nature of their participation, as well as assurance of anonymity.

The questionnaire destined for law schools was accompanied by a letter explaining the research, assuring anonymity, and provided the thesis supervisor's contact details. This questionnaire was piloted with members of the local law school academic staff. With both questionnaires, corrections and modifications were necessary after the piloting. In the case of closed questions, response options were coded ahead of administration of the questionnaire. Open-ended question responses were coded once the responses had been read and categorised. Data was input into the statistical SPSS package by the author and analyses undertaken based on the data presented.

3.9.3. PRE-TEST AND POST-TEST

The one group pre-test post-test is a common method used to indicate the effectiveness of an intervention.¹⁴⁵ T-tests are often used to examine if there is a significant difference between two sets of data.¹⁴⁶ The paired samples test is used

Educational research: contemporary issues and practical approaches. (2000) 101-107; RA Peterson. *Constructing effective questionnaires.* (2000); B Gillham. *Developing a questionnaire.* (2000).
¹⁴⁴ L Cohen, L Manion and K Morrison. *Research methods in education.* 5th ed. (2000) 247-251, 255-256; B Gillham. *Developing a questionnaire.* (2000) 25-37; RA Peterson. *Constructing effective questionnaires.* (2000) 29-45.
¹⁴⁵ WL Neuman. *Social research methods: qualitative and quantitative approaches.* 4th ed. (2000) 228; E Babbie and J Mouton. *The practice of social research.* (2001) 209-210; 215.
¹⁴⁶ RL Miller. *SPSS for social scientists.* (2002) 119.

where there needs to be repeated measurement of responses from the same respondents. Validity and reliability need to be considered in the development of any test.¹⁴⁷ The pre- and post-test needs to be reliable in terms of appropriate reflection of the content of the module. As the use of a control group in the LRWR module was not feasible, the pre- and post-test method provided one alternative method of assessing the effectiveness of an intervention. The role of the intervention in terms of the particular nature of the LRWR module was deduced from comparing results of pre- and post-test. The pre- and post-test with one group exploits temporal variation. Because it is impossible to establish an exact causal effect between the pre- and post-test of the intervention, other evidence needed to be considered as well.

In terms of the LRWR module, a pre- and post-test was considered appropriate as one means of examining the effect of the new approach to the module as well indicating problem areas that should be considered in module development. The pre-test provided some insights into those areas that might need particular attention in the module. The quantitative nature of responses gives an idea of the degree of improvement. The pre- and post test included questions pertaining to process and content to be covered in the module. Given that the role of intervening factors between pre- and post –test cannot be determined, the outcome of the post-test should be considered to be an indication of competencies gained during the module not absolute proof of the success or failure of the intervention. The pre- and post-test can however provide some idea as to whether elements of the intervention were successful and have use in triangulation. The questions needed to be carefully planned to attempt to focus on aspects of the intervention that are not generally replicated elsewhere

The hypothesis was that the intervention of the Legal Research Writing and Reasoning module, designed and presented from an active learning perspective, would make a positive impact on the skills and knowledge of students registered for the module. The null hypothesis was that the intervention of the module, designed and presented from an active learning perspective, would not have a positive impact on the knowledge and skills of students registered for the module.

¹⁴⁷ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 130-132.

The pre- and post-test questions were piloted with two student assistants and minor alterations made. Both the pre-test and the post-test were administered during class time. The post-test was one of the assessment activities for the module. Scores were allocated for each question. After the tests had been marked, the scores were entered into the SPSS package by the author and analysis undertaken with respect to the data.

3.9.4. LEARNING STYLES INVENTORY

A learning styles inventory was administered to discern the nature of and pattern of learning styles. It has been argued in the literature review that the ‘one size fits all’ lecture is in fact a myth.¹⁴⁸ Learners learn in different ways according to their prior learning, aptitudes, backgrounds and environments, demands of study and disposition to learning – referred to as a learning style.¹⁴⁹ Whilst it has been acknowledged that learning styles are not fixed, knowledge of them is useful in terms of designing appropriate learning and teaching activities. Catering for learning styles is purported to improve learning.¹⁵⁰ Some authors¹⁵¹ believe that certain learning styles are inappropriate for deep learning and students need to understand their learning style and the need to move into other styles. A wide variety of learning style instruments exist.¹⁵²

Vermunt’s Inventory of Learning Styles (see Appendix Four and section 2.3.5.3.) was applied to the students in the module. This ILS was chosen because of its design for university students. Although it has been used largely in Europe and purportedly not tested for cultural variations of students, it was considered an appropriate instrument. The students completed the ILS during class time recording answers on the standard University coding sheet. The answer sheets were computed by the University’s Quality Promotions Unit and supplied as spreadsheets

¹⁴⁸ GH Gregory and C Chapman. *Differentiated instructional strategies: one size doesn’t fit all*. (2002) ix, x, 19-21.

¹⁴⁹ GH Gregory and C Chapman. *Differentiated instructional strategies: one size doesn’t fit all*. (2002) 1-36; J Biggs. *Teaching for quality at university*. (1999) 10-18.

¹⁵⁰ J Biggs. *Teaching for quality at university*. (1999) 10-18.

¹⁵¹ D Kolb. *Experiential learning: experience as the source of learning and development*. (1984) 20-39; J Vermunt. “Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis.” (1996) 31 *Higher Education* 47-48.

¹⁵² F Coffield ...et al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review*. (2004). <https://www.lseducation.org.uk/user/order.aspx?code=041543&src=xoweb>. Accessed: 12.12.2004.

to the author who undertook further collation of data based on the collation of responses required by the ILS, and then analysis of the data..

3.9.5. OBSERVATION

Observation is a key data gathering technique in qualitative research. Observation has the advantage of seeing what is actually happening in a given situation rather than gaining information second hand.¹⁵³ It is a useful dimension in the quest to obtain the full picture of a situation; where verbal responses may be difficult to obtain and to understand interactions. Observation may happen in various ways in terms of the researcher. On one end of the spectrum the researcher may be a complete participant, to the other end where the researcher is only an observer. In-between, the observer may be a participant as well to varying degrees. Much depends on the nature of the situation. The manner in which observation is undertaken can be highly structured where what is to be observed is clearly determined in advance and an observation schedule drawn up in terms to be able to indicate observations. Advantages of observation are that it permits varying degrees of involvement by the researcher, recording of events happens as they occur and behaviours can be observed in their natural settings. Disadvantages include ethical considerations, the subjectivity of the researcher, and the likelihood of the behaviour of those being observed altering if they know they are being observed.¹⁵⁴ Types of observation such as structured and unstructured observation, rating observation and event sampling and their advantages and disadvantages have been well argued in the literature.¹⁵⁵

Neuman¹⁵⁶ saw observation as most useful when other methods are not practical and for learning about and describing group interaction. In the quantitative paradigm, the researcher's role is that of objective observer. In qualitative research, the researcher uses observation to gain first hand insights, often as a participant,

¹⁵³ L Cohen, L Manion and K Morrison. *Research methods in education. 5th ed.* (2000) 305.

¹⁵⁴ GE Gormon and P Clayton. *Qualitative research for the information professional.: a practical handbook.* (1997) 104-105.

¹⁵⁵ L Cohen, L Manion and K Morrison. *Research methods in education. 5th ed.* (2000) 313.

¹⁵⁶ WL Neuman. *Social research methods: qualitative and quantitative approaches.* 4th ed. (2000) 345.

and much observation may be unstructured.¹⁵⁷

During the classes of the LRWR module, conscious unstructured observation was undertaken to see how students dealt with the multi-method approach particularly that of group work.

3.9.6. REFLECTION EXERCISE

As part of the instructional design and an activity within the active learning approach, one formal reflection exercise on the process of the module was completed by the students approximately half way through the module. The exercise was presented in the form of a statement about the module thus far and then the students were asked to formulate a response based on their experiences to date (see Ch.6: 6.6.). The students were asked to complete this exercise over the short Easter vacation. As the exercise formed part of the module activities and assessment, it was compulsory. The responses were read, grouped under topical headings and then analysed to ascertain number and type of topical headings, distribution of responses and their characteristics.

3.9.7. FOCUS GROUPS

The focus group method is used in qualitative research and may be combined with other qualitative and quantitative methods of data collection. Focus groups are used for gaining information and listening to the views of participants.¹⁵⁸ The usefulness of focus groups depends on the circumstances and appropriateness of the method to the research. Statistical representation and representativeness are not the aims of focus groups. There appears to be some consensus about what a focus group is.¹⁵⁹ A focus group is described as a small structured group of selected individuals who meet for a particular period of time to discuss (focus on) a particular

¹⁵⁷ AS de Vos...et. al. *Research at grass roots for the social sciences and human services professions*. 2nd ed. (2002) 80.

¹⁵⁸ L Litosseliti. *Using focus groups in research*. (1989) 8-9, 16-18; Krueger, RA. *Focus groups: a practical guide for applied research*. 2nd ed. (1994).

¹⁵⁹ J Wellington. *Educational research: contemporary issues and practical approaches*. (2000) 124; AS de Vos...et. al. *Research at grass roots for the social sciences and human services professions*. 2nd ed. (2002) 305-320; J Kitzinger and RS Barbour. Introduction: the challenge and promise of focus groups. In: Barbour, RS and Kitzinger, J. *Developing focus group research: politics, theory and practice*. (1999) 4; G Kamberelis and G Dimitriadis. Focus groups: strategic articulations of pedagogy, politics and inquiry. In: Denzin, NK and Lincoln, YS. *Handbook of qualitative research*. 2nd ed. (2000) 887.

topic or set of issues.¹⁶⁰ Two core elements of focus groups have been identified, namely the presence of a trained moderator, who guides the group via prepared questions or interview guide, with the goal of obtaining the opinions, feelings and thoughts about a selected topic.¹⁶¹

The strengths and weaknesses of the focus group method as well as practical guidelines for organising, running, documenting and reporting on focus group research are amply presented in the literature.¹⁶² Focus group data can usefully be used in conjunction with other methods and for purposes of triangulation. Bloor ...et al¹⁶³ however indicate that whilst focus groups can complement other methods of data collection but cannot validate them.

Authors are generally in agreement¹⁶⁴ about the size, composition and nature of groups, venue preferences, data recording methods and requirements, managing groups, and ethical issues involved in focus group research.

Analysis and presentation of data from focus groups present particular challenges. Bloor ...et al.¹⁶⁵ have claimed that the focus group data is unique because it reflects discussion the nature of which can vary considerably in terms of depth, discord and character as a result of participants, topic and so on. There are various ways of recording, analysing and presenting data. Bloor ...et al¹⁶⁶ considered transcription of tape recordings whilst Krueger's 'how to' guide¹⁶⁷ considers transcripts, tape recordings, note taking and memory or a combination as methods of recording discussion. Analysis needs to consider the actual language and words used by participants, the context, internal consistency; frequency, intensity and

¹⁶⁰ L Litoselliti. *Using focus groups in research*. (1989) 1; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 288; C Puchta and J Potter. *Focus group practice*. (2004) 5; EF Fern. *Advanced focus group research*. (2001) 216.

¹⁶¹ C Puchta and J Potter. *Focus group practice*. (2004) 6.

¹⁶² EF Fern. *Advanced focus group research*. (2001) focuses on these aspects throughout his book; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 288-289; L Litoselliti. *Using focus groups in research*. (1989) 2-3; M Bloor ...et al. *Focus groups in research*. (2001) 13.

¹⁶³ M Bloor ...et al. *Focus groups in research*. (2001) 13.

¹⁶⁴ J Kitzinger and RS Barbour. Introduction: the challenge and promise of focus groups. In: Barbour, RS and Kitzinger, J. *Developing focus group research: politics, theory and practice*. (1999) 3-18; M Bloor ...et al. *Focus groups in research*. (2001); L Litoselliti. *Using focus groups in research*. (1989) 33 -40; EF Fern. *Advanced focus group research*. (2001).

¹⁶⁵ M Bloor ...et al. *Focus groups in social research*. (2001) 58.

¹⁶⁶ M Bloor ...et al. *Focus groups in social research*. (2001) 58-73.

¹⁶⁷ RA Krueger. *Analyzing and reporting focus group results: Focus group kit 6*. (1998).

extensiveness and specificity of comment; what was not said. He provides guidelines for analysis as well as reporting of findings. Bloor ...et al¹⁶⁸ overviewed two methods of analysis these being analytic induction and logical analyses. 'Content analysis involves identifying the key substantive points in the discussion and categorizing them. Categories need to be exhaustive in that all substantive statements should fit into a category.'¹⁶⁹

Whilst focus groups are not representative and hence have drawn criticism in terms of lack of generalisability, reliability and validity, they provide an important means for collecting qualitative data. Fern¹⁷⁰ particularly referred to the problems associated with using focus group data for purposes of triangulation but acknowledges its widespread use for this purpose.

The author considered that the use of focus groups would be appropriate in terms of discussing with some participants in the LRWR module their reactions to the experience of the active learning approach to the module. It was considered the most suitable method of obtaining detailed insights into this. The groups were pre-existing as the participants had been attending the module so had been subjected to the same experience and at least knew each other by sight and thus shared many similar characteristics. The author as facilitator was known to the participants and the research. The author used the note taking method with tape recordings to support the notes and provide verbatim quotes. The reporting of data was in the form of a narrative with a representative selection of quotations to support analysis. The focus groups took place at the end of the module during lecture periods so as to be convenient for the participants. The focus groups took place in the law school.

3.10. EVALUATION OF METHODOLOGY

Taking cognisance of the shortcomings of any research design, methodology and data collection instruments, and the difficulties facing researchers in terms of accurately measuring reality, this author believes that the current research adopted

¹⁶⁸ M Bloor ...et al. *Focus groups in social research*. (2001) 58-73.

¹⁶⁹ L Litosselli. *Using focus groups in research*. (1989) 90.

¹⁷⁰ EF Fern. *Advanced focus group research*. (2001) 176-179.

an appropriate methodology for the study and met the requirements of validity and reliability in particular.

The current research was undertaken as a case study. This was considered the most appropriate approach given that the author's interest was in the specific situation of the Legal Research Writing and reasoning module at the University of KwaZulu-Natal, Pietermaritzburg campus. This current research reflected a strong theoretical foundation and the module itself was studied in its natural setting, as a bounded system and over a period of time with a fixed group of participants. Analysis of both the process and the product over time was feasible. A case study allows for collection of data from multiple sources. The current investigation used six instruments to gather a wide range of different and complementary data which successfully served to provide a rich description of the case. These multiple data collection instruments allowed for the examination of a range of facets of the case from different perspectives. The use of multiple data collection instruments supported triangulation which is a requirement for validity. All these above mentioned factors, this author believes, supported the reliability and validity of the research in terms of triangulation, authenticity, comprehensiveness of investigation and the workings of the data were made apparent.

Data was sourced from both the participants and the researcher. Both the author and the participants were actively involved and the data collection formed part of the process of the implementation of the module. The author was a participant, teacher, mentor and observer. The data sources supported the means of triangulation and complemented each other. In terms of the questionnaires to the students and the law schools and the pre- and post-test, these were piloted before being administered. It is considered that the questionnaire and pre- and post-test questions accurately reflected their purpose. Whilst being used to collect very different data, the data from these two instruments complemented each other and supported each other. For example, the questionnaire responses indicated a high level of computer usage but primarily for emailing, word-processing and online searching for assignments. Few respondents had used academic databases. The poor responses to usage of academic databases on the questionnaire were mirrored in the poor responses on the pre-test to questions concerning academic

database usage. This range of data and data collection instruments and the complementarity and triangulation of data supported the validity and reliability of the research instruments.

There was an 83% response rate on the questionnaire and 78.7% of the student population enrolled for the module completed the pre-test thus being able to be used for the post-test. The fact that not all students completed the pre-test was due to a university staff strike at the time which disrupted registration and lectures, and many students were still trying to secure financial aid and accommodation by the time lectures commenced, hence their non-attendance at classes. This percentage response rate is high and supports validity and reliability of data collected. In terms of the inventory of learning styles, 79.5% of the students completed this successfully. These response rate percentages are high again adding to the reliability of the data.

The hypothesis for the development of the module, that the intervention of a legal research module from an active learning perspective, within an information literacy paradigm would contribute to the legal research knowledge, skills and learning of the students enrolled in the module, was supported by the data collected from the various instruments. The pre- and post-tests conducted with the 78.7% of participants indicated that the intervention of the module had positively contributed to their attainment of skills and knowledge. The large size of the pre- and post-test population supported the reliability and validity of the data collection instruments and data.

3.11. SUMMARY

The current research was underpinned by a literature review which informed the theoretical base of the study, the design, methodology, and methods alongside the nature of the actual research environment and research questions. The study resided within the qualitative domain using a combination of qualitative and quantitative methods to gather data as appropriate. The study was undertaken as an instrumental case study in order to investigate and understand the feasibility of designing a legal research module from an active learning perspective and within an information literacy paradigm. The case study allowed for a thick description of the

study: the module and its participants. The range of methods used to elicit data provided information about different facets of the case as well as different perspectives of these facets, thus enabling triangulation. Validity and reliability were accommodated in terms of the thick description and triangulation, the high response rates to the data gathering instruments used, the appropriate choice of design and instruments and their contents as well as the showing of the workings of the research, and the inclusion of the voices of participants and researchers.

A survey of law faculty websites and a questionnaire to law faculties were designed to obtain information about the nature of legal skills modules. A questionnaire was used to elicit demographic and work habit information relevant to the content and processes of the module from the students in the module. A pre and post-test indicated the extent to which the module intervention assisted module participants in gaining skills and knowledge about legal research as well as areas that needed development in the future. A learning styles inventory provided further indication of student learning characteristics which informed teaching and learning approaches. A reflection exercise and focus groups provided detailed insight into the teaching and learning experiences of the students within the module. Observation was used to ascertain how students managed group work and developed problem-solving skills. Data was computed where possible, otherwise collated manually, and all subjected to analysis within the context of the research questions.

CHAPTER FOUR

FRAMEWORK FOR THE LRWR MODULE; THEME; GOALS AND OBJECTIVES; ASSESSMENT; TEACHING METHODS; INTEGRATION INTO OTHER MODULES

Despite the UKZN Faculty of Law taking the decision to rename the Legal Method module in 2005 Legal Research, Writing and Reasoning, the Faculty has been unable to explain the exact rationale for the name change, or the purpose and character of the module. Presumably imperatives within the faculty's mission and vision underpinned by SAQA requirements (Ch. 2: 2.2.7) resulted in the new module name. Currently, the Durban and Pietermaritzburg campuses of the faculty have different approaches to the content and teaching of the module. The author's only involvement in the creation of the module has been in terms of developing the template; and particularly in a teleconference in 2006, which considered the nature of the two approaches and the possibilities for a single curriculum for the module in preparation for a faculty audit. It was agreed that the purpose and content of the module needed to be revisited but at this point in time there have been no developments. The author was permitted to develop the module as she saw fit in consultation with the module coordinator, a member of the academic law school staff. This chapter reflects the redesign of the module, the theoretical framework within which the module was situated, theme, goals and objectives and outcomes.

4.1. INTRODUCTION

As a product of the research process for this study, the LRWR module was thus redesigned in 2005 ready for implementation in 2006, by the author, with a view to experimenting more formally with a new approach. The new design intended that the module be situated within an information literacy paradigm, this being seen as the most appropriate way of introducing students to the dynamics of legal research within the context of the module title. Information literacy for a learner in LRWR, is a process and a spectrum of interrelated transferable practical and cognitive higher order thinking skills reflecting declarative, functional, procedural and conditional

knowledge and understandings.¹ It is inclusive of research, reading, writing and reasoning and takes cognisance of the generic and specific competencies, skills and knowledge endemic to the study of law in particular. The focus is on the learner, developing independence in the information environment in order to become a life-long learner. Theoretical legal reasoning was not deliberately included as a particular component of the module as this is outside the realm of the author at this particular stage of development of the module. Rather, reasoning in terms of practical critical thinking skills was considered. A constructivist theory of learning was adopted, and acknowledged as far as was possible, accepting this will have to develop over a period of time. The consequent instructional design of the module was in terms of developing a constructivist learning environment.² The author acknowledges that the module's development will be incremental and the basis of this thesis is the feasibility of such a paradigm and framework within a conventional higher education environment.

4.2. THEORETICAL FRAMEWORK FOR THE MODULE

Chapter two of this thesis covered the key literature appropriate to the study, and resulted in the formulation of a theoretical and practical framework upon which the module development was based. The theoretical and practical framework underpinning the module was a combination of the following aspects:

- macro and micro-environments, namely the prevailing socio-economic-political environment, higher education, technology, the conditions that exist at the time of learning – physical space, curriculum, time and other constraints
- rationale for the module including the national and professional qualifications framework and local faculty requirements

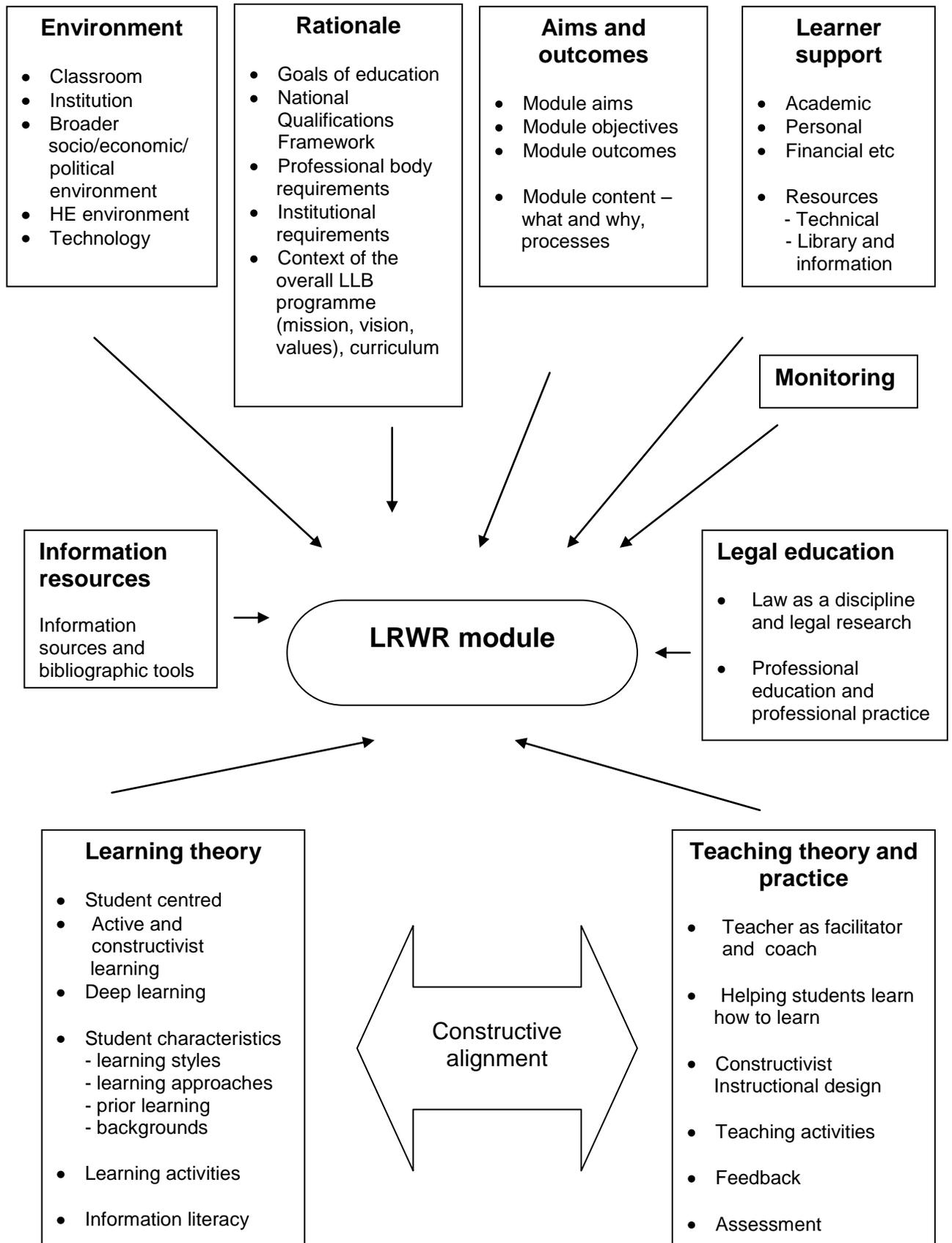
¹ J Biggs. *Teaching for quality at university*. (1999) 40; ACRL. *Information literacy competency standards for higher education*. (2000). <http://www.ala.org/ACRL/Printer.cfm?Section=acrstandards&Template=/C>. Accessed: 14.12.2004; American Library Association. *Definition of information literacy*. (1989), www.ala.org. Accessed: 13.7.2004.

² D Jonassen. Designing constructivist learning environments. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) 215-240; J Biggs. *Teaching for university*. (1999) 11- 32; M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural and political challenges facing teachers." (2002) 72 (2) *Review of Educational Research* 131-175.

- aims and outcomes for the module which involves consideration of objectives, content and process
- learner support in terms of the range of facilities needed to support learners while on campus both academic and non-academic
- legal education – law as a discipline, the nature of professional education and practice and resultant characteristics of legal research
- teaching theory and practice – the whole teaching environment inclusive of goals and objectives, outcomes, learning activities; instruction methods and instructional design, constructivist learning environment; assessment and feedback
- learning theory – characteristics, backgrounds; prior knowledge and learning styles
- information literacy and the information environment
- monitoring of the module for ongoing development.

The adequate alignment and incorporation of this combination of factors in terms of a module's development is not necessarily easy or achievable given a range of constraints but reflects a holistic approach to the development of a module within the formal learning and teaching environment . Whilst each aspect is considered separately below, all the abovementioned aspects are in reality, interrelated and interdependent. Figure two below provides a diagram of this framework. This is followed by a brief description of each of the factors.

Figure Two: Framework for design of the LRWR module



4.2.1. ENVIRONMENTAL FACTORS

Modules are not designed in isolation of the various contexts in which they are situated. The contexts are many, and tensions may exist between them. These contexts include the national socio/economic/political environment, higher education, institutional, technology and classroom environments. As the literature review has indicated, the formal higher education environment exhibits many distinctive characteristics (see Ch.2: 2.3.2.). Students often do not have choices about the courses they take, these often being dictated by requirements of institutions and other accreditation bodies as well as national imperatives. At least in theory, higher education aims for an education that is a mix of theory and practical, content and process and higher order thinking skills, much of which is context specific. Formal education usually results in specific qualifications, mostly attained through summative assessment.

The current South African LLB has experienced substantial changes since 1994. These include national imperatives in terms of the political, economic and social demands of a developing society, that have manifested themselves in the SAQA outcomes standards for legal education (see Ch. 2: 2.2.7.); the restructuring of the degree so that it is now a four year rather than five year undergraduate qualification (see Ch.2.2.7.); a new Constitution and major legislative changes in particular affecting all facets of South African life.³ Many students have experienced poor quality schooling, little or no exposure to school libraries or diversity in reading materials. The law degree in particular is reading and text dependent.

In South African higher education there have been concomitant far reaching changes (see Ch. 2: 2.3.2.1.). These have related to mergers between higher education institutions, other institutional changes, equal access to all higher educational institutions at least in terms of race so dramatically increased enrolment numbers, and a plethora of problems relating to differential preparedness of

³ PF Iya. "The legal system and legal education in Southern Africa: past influences and current challenges." (2001) 51(3) *Journal of Legal education* 355-361; JB Kaburise. "The structure of legal education in South Africa." (2001) 51(3) *Journal of Legal education* 363-371; K O'Regan. "Producing competent graduates: the primary social responsibility of law schools." (2002) 119(2) *South African Law Journal* 242-252 McQuoid-Mason. *Using your imagination to light up knowledge, skills and values for LLB students: lessons from South Africa.* (2006) 6p.

students for university because of poor schooling. University student populations are now diverse in terms of race, language, culture, socio-economic factors and preparedness for the rigours of university study.⁴

At a local level universities are facing major transformation in all spheres of activity, decreasing budgets and increasingly complex competing demands for resources and pressure for throughput of students. Physical classroom facilities are not always suitable for optimal learning and teaching and large classes and unfavourable teaching staff / student ratios negate attempts to move away from the lecture method of teaching.

Technology has brought about major changes in education in many instances offering students new ways of learning and teachers new methods of instruction, but also many challenges. Internet availability in particular has meant a vast supply of information outside the textbook and classroom and the library; education is moving from 'brick learning to click learning'.⁵ The classroom is now richly resourced (although not necessarily equally in different parts of the world).⁶ In a knowledge and information driven world, the ability to find and use information efficiently, particularly in electronic format is a major challenge. Library literature, including law libraries, have expounded on the impact of technology on information resources and teaching and learning.

All of these factors were taken into account in the development of the LRWR module by the University of KwaZulu-Natal Faculty of Law, namely the standards of SAQA for legal education in South Africa, embedded within the Faculty's mission

⁴ JD Jansen. Changes and continuities in South Africa's higher education system, 1994 to 2004. In: Chisholm, L. (ed.) *Changing class: education and social change in post-Apartheid South Africa*. (2004) Ch. 11; JD Jansen. "On the state of South African universities." (2003) 17(3) *South African Journal of Higher Education*. 9-12; A Mji. "What influences students to university education? Insights from the horse's mouth." (2002) 16(2) *South African Journal of Higher Education* 166-176; K Nyamapfene, & M Letseka. "Problems of learning among first year students in South African universities." (1995) 9(1) *South African Journal of Higher Education* 159-167.

⁵ T Park. "Rethinking and re-imagining higher education: why?" (2003) 17(3) *South African Journal of Higher Education* 6.

⁶ M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers." (2002) 72(2) *Review of Educational Research* 135.

and vision, which was produced following on from the merger of the University of KwaZulu-Natal and University of Durban-Westville. A stand-alone module, LRWR, is situated in the second year of the four year undergraduate LLB. Students registered for the module include LLB students as well as those from other degrees who intend majoring in Legal Studies, a major offered by the UKZN faculty. Apart from individual characteristics, students enrolled in the LRWR module at UKZN are typical of the national post 1994 trend of increased diversity in the student population attending university.

The next factors to be considered are the rationale for the module, aims and outcomes and learner support.

4.2.2. RATIONALE FOR THE LRWR MODULE

The LRWR module design was affected by the general goals of higher education. Chapter two, section 2.3.2.2. considered the goals of higher education particularly at undergraduate level. Content, process and learning how to learn are such goals. As mentioned above, these goals of HE in turn are affected by the SAQA standards as well as requirements of the legal profession (Ch.2: 2.2.7.). The LRWR module is situated within the LLB programme of the University of KwaZulu-Natal and thus needed to take cognizance of its place within the overall programme. The faculty is responsible for the existence of the range of modules that make up the LLB degree as well as resource allocation and timetabling. Institutional factors such as provision of infrastructure affect the final manifestation of the degree.

4.2.3. AIMS AND OUTCOMES

In terms of the LRWR module itself, the literature (see Ch 2.: 2.3.5.) review indicated that every module needs to have aims, objectives and outcomes. These determine processes, content: the kinds of knowledge and understanding that are required to be learned and learning and teaching activities. Several authors have indicated (see Ch.2: 2.3.5.3. – 2.3.5.4.) that the aims, objectives and outcomes must consider content, assessment, and associated learning and teaching activities. There needs to be constructive alignment between these elements.

The content or curriculum is largely dependent on the goals and objectives and outcomes of a module or programme. Content may comprise facts, ideas, and processes and is imparted in order for learners to gain information and knowledge. As indicated earlier, the goal of curriculum is to increase knowledge and deepen understanding – qualitative and quantitative aspects.⁷ Knowledge is of several types, knowing what, knowing how and knowing when: academic knowledge as well as skills, conceptual understanding and application of that understanding.⁸

In terms of rationale, aims and objectives, the LRWR module was influenced by the characteristics of information literacy and the need to assist in the achievement of the SAQA outcomes which include the law graduate being able to find information in various media, possessing good reading and writing skills, being able to problem-solve, conduct research and so on. The aims, objectives and outcomes of the module are presented later in this chapter, sections 4.3 and 4.4.

4.2.4. LEARNER SUPPORT

The academic wellbeing of learners is determined not just by their academic abilities but a whole range of factors that need to be in place for effective learning to happen. They need a range of support: administrative, financial, social, accommodation, recreational, as well as academic: computer and library facilities in particular.

The following aspects to be overviewed with respect to the framework are legal education, teaching theory with particular reference to instructional design, constructivist teaching and learning environments and assessment.

4.2.5. LEGAL EDUCATION

The LRWR module took cognizance of the typical problem-solving and precedent based approach to the study of law and the core problem-solving method of FIRAC as well as the need to expand these approaches. An attempt was made to accommodate the tensions between problem-solving as taught in professional education and problem-solving in practice (see Ch.2: 2.2.2.). Whilst the literature has argued as to whether skills needed for legal research are generic or specific to

⁷ J Biggs. *Teaching for quality at university*. (1999) 39-40.

⁸ J Biggs. *Teaching for quality at university*. (1999) 40-41.

legal research, the module was contextualized within a situation with a strong legal component. The LRWR module took cognizance of the particularities of the South African legal environment with respect to the topic and its context. The published legal materials are significant and the consideration of authority and the hierarchy with respect to primary and secondary literature as well as their now multimedia format influenced needed particular consideration.

4.2.6. TEACHING THEORY AND PRACTICE

The teaching environment is affected by qualities of the teacher, institutional demands and character, curriculum, module and lesson goals and objectives, outcomes and assessment, predispositions towards teaching methods and styles and learners. Teaching is a process of communicating a message through particular mediums and may be undertaken as passive transmission where the teacher is in control, to situations of interactive negotiated learning where learners take responsibility for learning and meaning is jointly or individually negotiated.

4.2.6.1. Instructional design

The purpose of instructional design is to develop appropriate curriculum, assessment and instruction in order to improve the understanding of learners (see Ch.2: 2.3.7.6.). This is accompanied by questions about what constitutes good design, what design best facilitates mastery of content and skills and how is appropriate evidence to be collected for purposes of assessment. One needs to ask first *why* do we want students to do or know particular things in order to decide *what* they should know or what are the desired results; *how* do we assess what they know, what evidence is needed and what learning activities (skills, facts, principles and so on) or experiences and instruction methods need to be employed to best accomplish the goals. The content largely covers the declarative, procedural and conditional knowledges discussed earlier and linkages to prior knowledge. In terms of methods of instruction to achieve goals, Reigeluth⁹ argued that there is 'almost always more than one best method that can be used to attain it'. Methods, he says, like information, are usually situational specific. Instructional outcomes must be authentic.

⁹ C Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 12.

As has already been indicated,¹⁰ there are many instructional design models and theories, and such theories are design oriented rather than descriptive as are many other kinds of theories. Design theories offer information on what instruction should look like rather than processes used to plan instruction; instruction with respect to goals, required knowledge and performances, instructional conditions, such as the nature of learners; learning activities; feedback and assessment; methods of instruction and intrinsic and extrinsic motivations. Methods of instruction are probabilistic rather than deterministic as they increase chances of goals being achieved. Reigeluth¹¹ noted that there has been and is a paradigm shift in instructional design given the systemic changes in the way the world operates with ever greater focus on problem-solving, diversity, customisation rather than standardisation, networking, the need for shared decision making and initiative.

Current thinking about learning activities includes the notion of scaffolding or providing the necessary aids to help students get to where they need to be. Originally introduced by Vygotsky¹², constructivist thinking is very strong on scaffolding as a learning intervention.

4.2.6.2. Constructivist learning and teaching environments

Guba and Lincoln,¹³ and Windschitl¹⁴ provided useful overviews of constructivism and constructivism as a learning theory (see Ch.2: 2.3.7.5.), indicating the vast array of interpretations of constructivism that can have quite different effects on goals, learning activities and classroom dynamics. Constructivism has proved difficult to define because it takes many forms but it reflects a learner-centred approach where learning and instructional activities are scaffolded, coached and modeled in order to enable learners to construct new knowledge, grounded in prior knowledge, in an active and collaborative way. Two broad conceptions are of cognitive and social constructivism.

¹⁰ Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2.

¹¹ C Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 16 -18.

¹² LS Vygotsky. *Thought and language*. (1962).

¹³ EG Guba and Y Lincoln. *Fourth generation evaluation*. (1989) ch 3.

¹⁴ M Windschitl . “Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers.” (2002) 72(2) *Review of Educational Research* 134-143.

Cognitive constructivism focuses more on how the individual learner constructs, adapts and refines knowledge, rooted in personal experiences. Often ideas and perceptions are inaccurate or at odds with validated knowledge within disciplines. The role of the teacher is to help learners develop their ideas and make new ideas accessible to them, with opportunities to utilise new ideas. Social constructivism views knowledge as ‘primarily a cultural product’¹⁵ evolving from interaction with and participation in communities. Vygotsky’s influence is felt here, and knowledge is built and fostered in learning activities that are interactive and social and assisted by those more knowledgeable– the zone of proximal development. Social and cultural contexts need to be provided for to enable the mastery of appropriate of higher order cognitive activities.¹⁶ Learning environments are viewed as communities of learning. Supporting student learning requires knowledge of where students are in the development process which is extremely difficult where classes are large. This calls for careful facilitation by the teacher in order to assist learners.

Rather than define constructivism, Windschitl¹⁷ identifies the characteristics of teacher and learner activity in a constructivist classroom. The constructivist learning environment model for instructional design emulated in the LRWR module is that of Jonassen, reflecting the goal of fostering learning via problem solving with ill defined problems.¹⁸ This was discussed in Chapter 2:2.3.7.6. Methods used include selecting an interesting, relevant, engaging and ill defined problem which is authentic; involves the use of related cases; a range of cognitive tools that scaffold required skills; and make use of coaching, modeling and scaffolding. Jonassen,¹⁹ quoting various authors, indicates that authentic refers not to real life situations necessarily, but rather ‘learners should engage in activities which present the same type of cognitive challenges as those in the real world.’

¹⁵ M Windschitl. “Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers.” (2002) 72(2) *Review of Educational Research* 141.

¹⁶ M Windschitl. “Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers.” (2002) 72(2) *Review of Educational Research* 141.

¹⁷ M Windschitl. “Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers.” (2002) 72(2) *Review of Educational Research* 137.

¹⁸ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 215-240.

¹⁹ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 221.

4.2.6.3. Assessment and feedback

Curzon²⁰ defined assessment as 'collecting, measuring and interpreting information relating to students' responses to the process of instruction.' Assessment is required by both learner and teacher as some sort of measure of performance and learning and success both for the individual and in terms of a module or task, as well as for purposes of certification and to add to the body of knowledge about learners.²¹ Assessment should occur at suitable times; in appropriate forms, be valid and reliable for that which is being assessed and be an integral part of a module, not assessment for its own sake.²² Summative assessment is the most common form as it is time efficient, allows for standardisation, compares individuals with one another and is used as a yardstick for potential to progress along the educational continuum. Assessment is a much debated topic in terms of appropriateness of particular methods of assessment; rationale for assessment; scoring in assessment, alternative methods and using a range of assessment methods to accommodate learning styles and learner characteristics; the problem of the assessment oriented nature of formal education which can prevent deep learning and promote surface learning and assessment as a true measure of learning and understanding.²³

The alternative or constructivist approach suggests that learning happens by constructing knowledge and interpreting it. Instruction is thus seen not as a direct transfer of knowledge but an 'intervention, in an ongoing knowledge construction process.' Assessment here thus needs to take cognisance of levels and complexity of understanding rather than recognition or recalling of fact. Gipps notes that a more problem solving approach to learning and assessment is required and assessment should focus on higher order learning skills such as understanding of principles, application of knowledge and skills to new tasks; investigating, analysing and discussing complex issues. Gipps notes the importance of scaffolded assessment²⁴ which denotes a more interactive mode of assessment.

²⁰ L B Curzon. *Teaching in further education: an outline of principles and practice* . 6th ed. (2004) 383.

²¹ D Lambert and D Lines. *Understanding assessment: purposes, perceptions and practice*. (2000) 4.

²² N Entwistle and P Ramsden. *Understanding student learning*. (1983) 208-209; LB Curzon. *Teaching in further education: an outline of principles and practice*. 6th ed. (2004) 388-9.

²³ CV Gipps. *Beyond testing: towards a theory of educational assessment*. (1994) 21-29; D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. 2nd ed. (2002) 205-6.

²⁴ CV Gipps. *Beyond testing: towards a theory of educational assessment*. (1994) 21-29.

Formative assessment or continuous assessment provides scope for more timeous feedback as well as investigating and testing a wider range of conceptual and declarative knowledge than might otherwise be possible through summative testing. This type of assessment also accommodates learning styles and allows students to work at their own pace.

The following sections deals with learning theory and characteristics of learners that need to be considered as well as active learning, nformation literacy and information resources and tools.

4.2.7. Learning theory and learner characteristics

Donnelly and Fitzmaurice²⁵ argue that it is important to be aware of learning theories in design because each learning theory supports particular strategies for supporting learning. The literature review (see Ch.2: 2.3.3.5 and 2.3.4.) indicated the author's alignment with a student centred approach to learning and teaching within an active and constructivist paradigm.

The research literature, as already indicated (Ch.2: 2.3.3.), reflects a more conscious move towards recognising the centrality of the learner and the diversity of learners within the formal learning environment (not a new idea however) despite the focus on standardisation of instruction and assessment. Much education and training still reflects teaching large numbers of diverse learners the same content in the same way over the same period of time. This format is usually unavoidable given large class sizes particularly at university, pressures on teachers in terms of availability of resources and competing demands of research. Other constraints are time, in terms of the length of semesters, class room layout rigidity, pressure for throughput and accountability to administrative structures, and the efficiency of and less time consuming practice of standardised summative assessment.²⁶ Much

²⁵ R Donnelly and M Fitzmaurice. Designing modules for learning. In: O'Neill, G and McMullin, B. (des.). *Emerging issues in the practice of university learning and teaching*. (2005) 101.

²⁶ CM Reigeluth. What is instructional-design theory and how is it changing? In Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 15-19; D Lambert and D Lines. *Understanding assessment: purposes, perceptions, practice*. (2000) 5-6; M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers." (2002) 72(2) *Review of Educational Research* 134-136; D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning*

teaching and learning is still of the 'remember and tell' or application type rather than for transfer of and construction of knowledge and there is still concern about the focus on learning of facts rather than higher order cognitive skills.²⁷

The increasing production of standards at school levels in particular, to support measurable objectives and outcomes in education including IL, may well support this standardised approach²⁸ although the production of such does make educational sense in terms of guiding instructional design, outcomes and methods of teaching. Standards do not necessarily endorse a mechanistic non critical, non reflective approach to teaching and learning, although the higher order cognitive abilities of transfer of and construction of knowledge, problem based learning reflecting deep learning are more difficult to measure.²⁹ Authors³⁰ would argue that a knowledge base is essential for all learning as well as construction of new knowledge and learning to take place.

The education dynamic has been subjected to a plethora of theories as regards teaching and learning and subsequent models along a continuum from the behaviourists where the teacher is dominant and instruction is highly controlled and learning passive, to the more constructivist or cognitive approach that focuses on active learning and creative thinking and learning how to learn.³¹ The concept of life-long learning means an emphasis on 'learning how to learn' requiring the development of cognitive ability around critical thinking, constructing knowledge and

technologies. (2002) 67; N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts.* (2000) www.tlrp.org/acadpub/Entwistle2000.pdf. Accessed: 6.5.2005.

²⁷ RC Schank, TR Berman and KAA Macpherson. Learning by doing. In Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory.* (1999) 165; J Biggs. *Teaching for quality at university.* (1999) 21-22.

²⁸ A Google search reveals a plethora of standards particularly for American state school systems; various sets of information literacy standards were explored in Chapter 2; JO Carey. "Library skills, information skills, and information literacy: implications for teaching and learning." (1998) 1 *School Library Media Research* 1-19; S Andretta. *Information literacy: a practitioner's guide.* (2005) - to name but a few.

²⁹ CM Reigeluth. What is instructional-design theory and how is it changing? In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory.* (1999) vol 2, 11-12.

³⁰ J Biggs. *Teaching for quality at university.* (1999) 40; M Windschitl. "Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers." (2002) 72(2) *Review of Educational Research* 136; G Wiggins and J McTighe. *Understanding by design.* 2nd ed. (1998) 9-110.

³¹ J Biggs. *Teaching for quality at university* (1999) Ch 2; PK Murphy and PA Alexander. *Understanding how students learn: a guide for instructional leaders.* (2006) 33-54; LB Curzon. *Teaching in further education: an outline of principles and practice.* (2004) 35-102; C Bruce. *Seven faces of information literacy.* (1997) 36-39.

problem-solving and taking responsibility for learning³² moving beyond the 'show and tell' format of teaching. It also implies the recognition of group work and interactive social learning; active involvement in authentic activities and taking ownership of content and task, where the teacher facilitates rather than dictates, has taken root. Various authors³³ acknowledge that the aim of university education is providing students with different opportunities for viewing and constructing the world, and developing critical thinking. It is necessary for learners to understand why and where procedures and processes are relevant and needed, not just apply them to reinforce ideas and processes.³⁴

4.2.7.1. Learner characteristics

Some of the key questions raised about learning that were covered in the literature review that are pertinent to the framework for the module include:

- what is the nature of learners?
- what is learning, when does it take place?
- what is meant by understanding?
- what are learning styles?
- what is the relationship between aspects of learning and teaching?
- what is active learning?

The research around learners has focused on several aspects. Learners are unique and come from a range of backgrounds and influences and environments that affect their prior knowledge and readiness for learning and potential to adapt to or fit into particular learning and teaching environments. Thus they do not all learn in the same way and at the same pace. Cultural and social backgrounds, gender, ethnicity and class and aptitudes are acknowledged as particularly important in knowledge construction by learners.³⁵ In the South African situation students at university come from multicultural backgrounds, a separatist not cooperative history; language

³² S Andretta. *Information literacy: a practitioner's guide*. (2005) 12 –1 6; J Biggs. *Teaching for quality at university*. (1999) 10-31.

³³ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. (2002); J Biggs. *Teaching for quality at university*. (1999) 19-24.

³⁴ J Biggs. *Teaching for quality at university*. (1999) 40.

³⁵ PK Murphy and PA Alexander. *Understanding how students learn: a guide for instructional leaders*. (2006) provide a particularly comprehensive overview.

differences and a vastly differentially resourced school system that leaves many under prepared for the still fairly traditional style of university education.

Several studies³⁶ in the United States and Australia have considered the characteristics of the current generation of college attendees.

The problems associated with defining learning were covered in Chapter 2: 2.3.3.1. Learning is not a simple concept to define and has been defined in simple and complex ways. Research has taken place into the difference between and factors affecting 'surface' and 'deep' learning. Pioneers in the field³⁷ have considered these two broad ways of learning by students. Deep learning differs from surface learning in that learners go beyond basic facts and requirements and get to grips at a more conceptual, critical and reflective level with material, internalising the task, looking for and constructing meaning. It is considered to be the goal of teaching that learning should be deep rather than surface. For many of the factors already mentioned, surface learning is often the dominant way of learning. Biggs³⁸ says 'Surface and deep approaches to learning are not personality traits, as is sometimes thought, but reactions to the teaching environment.'

Learning implies or has as its goal for teachers, understanding and much debate has taken place around the meaning of understanding but also knowledge versus information. The author accepts the brief overview by Owusu- Ansah³⁹ of this debate about knowledge and information which includes the mutual exclusiveness and / or interchangeability of these two concepts; not all information is knowledge or becomes knowledge. He summarises Joanne Roberts' assertion that there is an 'interactive relationship between knowledge and information: Knowledge creation is

³⁶ K Manuel "Teaching information literacy to Generation Y". (2002) 36 (1/2) *Journal of Library Administration* 195-217; M McCrindle. *Understanding generation Y*. North Parramatta: Australian Leadership Foundation (2002)
<http://www.learningtolearn.sa.edu.au/Colleagues/files/links/UnderstandingGenY.pdf>; C Geck. "The generation Z connection: teaching information literacy to the newest Net generation" (2006) 33(3) *Teacher Librarian* 19-23.

³⁷ F Marton and R Saljo. "On qualitative differences in learning." (1976) 46 *British Journal of Educational Psychology* 4-11; 115-127; N Entwistle and P Ramsden. *Understanding student learning*. (1983); J Biggs. *Teaching for quality at university*. (1999) 11-18.

³⁸ J Biggs. *Teaching for quality at university*. (1999) 30.

³⁹ EK Owusu-Ansah. "Information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 223.

dependent upon information, yet the development of relevant information requires the application of knowledge'. Certainly those information literacy standards in existence presume the two to be an integral and interrelated part of the process of learning and becoming information literate and reflect the active critical thinking approach to finding, evaluating, using and reflecting upon information for specific purposes thus adding to one's body of knowledge. Today, the librarian perhaps predominantly works within the realm of information, providing the user with the building blocks to create knowledge.

Murphy and Alexander⁴⁰ comprehensively overview the states of knowing and knowledge. Prior knowledge is 'the sum of what an individual knows' including what is known, sometimes called information, as well as that which is believed. Prior knowledge is active and significantly influences the way in which people interact with the world. Effective teaching needs to be linked to student's prior knowledge. They claim,⁴¹ quoting others, that 'perhaps the single most substantive finding this century is that the knowledge that students bring to the learning task is the strongest predictor of what they will learn from the experience.' Prior knowledge can take several forms, namely declarative, procedural and conditional.⁴² Declarative refers to that which is known about things; the factual or 'what' knowledge. Procedural knowledge refers to the how of knowledge, the application or doing of the declarative knowledge. Conditional knowledge considers higher order declarative and procedural knowledge at a theoretical level and involves understanding how, when and why the prior two knowledges should be applied. Conditional knowledge requires a problem solving, critical thinking and reflective approach to knowledge. New knowledge acquisition or assimilation is not just about being presented with new information but engaging with, practicing and making reasoned choices about information.

Knowledge is altered, not always smoothly, if new knowledge means reshaping existing mental frameworks in three ways. Accretion or assimilation is extending existing knowledge structures by addition of or experience of information; tuning

⁴⁰ PK Murphy and PA Alexander. *Understanding how students learn*. (2006).

⁴¹ PK Murphy and PA Alexander. *Understanding how students learn*. (2006) 36.

⁴² J Biggs. *Teaching for quality at university*. (1999) 40-41; PK Murphy and PA Alexander. *Understanding how students learn*. (2006) 38-41.

which involves modification of existing conceptual understandings, and restructuring. Restructuring, a rarer form of knowledge change, involves fairly profound changes in understandings and beliefs. This often requires scaffolding in the teaching situation.

Schon⁴³ in particular, indicates that real learning and understanding are embedded in reflective activity of both content and process, particularly in the traditional problem-solving professions. The active learning approach advocates reflection for deep learning to occur.

Usually learning objectives require students to 'understand' without this requirement being clarified, something which appears difficult to do. Again this has been much debated in the literature. Understanding is linked to knowledge. Understanding involves what, the 'what' referring to declarative, procedural and conditional knowledge. Ultimately understanding needs to be performed which involves showing, doing, reflecting and so on (see Ch.2: 2.3.3.3. and 2.3.7.4.). Often woolly terms such as knows, recognises, appreciates, and so on, as reflected in objectives and performance outcomes, are used to describe the required understanding, yet it is difficult to be more precise. Knowing and understanding are not the same thing.

Wiggins and McTighe,⁴⁴ drew on the work of others including John Dewey, distinguished between knowledge and understanding by indicating that understanding relates to the meaning of facts, an event or situation rather than just the facts themselves; the coherence provided by theory; that right or wrong is more often rather a matter of degree; why and what something is, what are the causes and consequences and use of judgment, analysis, synthesis and evaluation as to when and how to use what is known. Bloom's taxonomy is an often used reflection of the degrees of understanding and complexity of knowledge acquisition. Understanding also involves transferability of what is learned into other situations. Biggs⁴⁵ reviewed research into student indicators of understanding that vary

⁴³ DA Schon. *Educating the reflective practitioner*. (1987).

⁴⁴ G Wiggins and J McTighe. *Understanding by design*. 2nd ed. (1998) Ch 2.

⁴⁵ J Biggs. *Teaching for quality at university*. (1999) 33-42.

depending on the nature of situations; understanding often being equated with meeting assessment demands.

In contrast to types of learners, are styles of learning although learners may not fall distinctly into a single style or may move between styles as a situation demands. The distinction between styles and types is unclear and some 71 learning style inventories have been identified, most concerned with the realm of instructional preferences.⁴⁶ A learning style can basically be considered a predisposition to learn in particular ways, the ways in which learners internalise, remember and process new knowledge, although one may well move between styles depending on situations and at different points in time, and styles may overlap. Learning styles are the product of a range of factors affecting learning and teaching such as physical environment, expectations, motivation, personal characteristics and so on. The literature has indicated that learners perform better when teaching and learning activities are appropriate for their learning styles.⁴⁷ In Chapter 2: 2.3.5.2. the work of David Kolb and Jan Vermunt⁴⁸ in particular were presented. The learning styles inventory of Vermunt was applied to the LRWR class.

4.2.7.2. Active learning

Active learning is the provision of learning activities that require active participation by learners, not just physically but mentally as well in a range of ways. The Abilene Christian University's Adams Centre for Teaching Excellence⁴⁹ provides a succinct definition with explanation that encompasses the complex nature of this seemingly often over simplified concept: 'Active learning is a multi-directional experience in which learning occurs teacher-to-student, student-to-teacher and student-to-student'. Abilene sees these multiple experiences as taking many *shapes* such as working in pairs, groups, individually and so on; and many *forms* such as talking,

⁴⁶ F Coffield ...et al. *Learning styles and pedagogy in post-16 learning: a systematic and critical review.* (2004). www.LSRC.ac.uk; K Gerdy. "Making the connection: learning style theory and the legal research curriculum.." (2001) 19(3/4) *Legal Reference Service* 71-93; D Kolb. *Experiential learning: experience as the source of learning and development.* (1984); J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 25-50.

⁴⁷ For example K Dunn and R Dunn. "Dispelling outmoded beliefs about student learning." (1987) 44(6) 55-61; CR Beck. "Matching teaching strategies to learning style preferences." (2001) 37(1) *The Teacher Educator* 1-15.

⁴⁸ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 47-48.

⁴⁹ M Silberman. *Active learning.* (2000). www.acu.edu/cte/activelearning/whatisal.html. Accessed: 7.10.2004.

writing, debating, reading and the like. 'When learning is active students do most of the work' says Silberman.⁵⁰ The role of the teacher is more one of facilitator and coach. Reflection on process and content is an important component of active learning and necessary for deep learning to occur.

Whilst active learning is a feature of constructivist thinking, not all active learning falls within a constructivist paradigm. Active learning has developed in response to the need to develop higher order thinking skills; allow students to take responsibility for their learning and to accommodate a range of learning styles. Wiggins and McTighe⁵¹ warned of 'hands –on without being minds-on'. Cognitive and affective domains are given equal emphasis in active learning, where thinking activities are emphasised along with beliefs and values.⁵² With information literacy and legal research the psychomotor domain or the physical skills also need to be accommodated. Focus is on the quality of the experiences which should be enabled if all aspects of the learning process are accommodated. Gedeon⁵³ has pointed out the problems of using the active learning approach with large groups. In higher education it is generally acknowledged that useful participation is difficult with large groups because large groups are difficult to control as is feedback and students often feel intimidated by the large class so are unwilling to speak out.

4.2.7.3. The relationship between aspects of learning and teaching

Biggs⁵⁴ summed up the relationship between learning and teaching thus:

Learning is the result of the constructive activity of the student. Teaching is effective when it supports those activities appropriate to achieving the curriculum objectives, thereby encouraging students to adopt a deep approach to learning. The key to reflecting on the way we teach is to base our thinking on what we know about how students learn. A good teaching system aligns teaching method and assessment to the learning activities stated in the objectives, so that all aspects of this system are in accord in supporting appropriate student learning.

⁵⁰ M Silberman. *Active learning: 101 strategies to teach any subject* (1996) 1x.

⁵¹ G Wiggins and J McTighe. *Understanding by design*. 2nd ed. (1998) 16.

⁵² C Myers and T Jones. *Promoting active learning: Strategies for the college classroom*. (1993) 19 -21.

⁵³ R Gedeon. "Enhancing a large lecture with active learning." (1997) *Research Strategies* 15(4) 301-309.

⁵⁴ J Biggs. *Teaching for quality at university*. (1999) 11.

The challenge is to find the right match between these various factors. Teaching and assessment methods need to be appropriate, authentic and engage the learner as well as accommodating learning styles. The teaching environment is as complex as that of the learner and incorporates delivery method, content and curriculum, assessment procedures, feedback, support facilities such as library and administration, study skills support, pace, physical structure of the teaching space, clarity, enthusiasm, empathy, pace and other communication characteristics of the teacher.⁵⁵

There are many models of teaching⁵⁶ but most would agree that the teaching learning environment comprises those factors present at the outset, namely curriculum, goals and objectives, learning styles, prior knowledge and diverse capabilities within the range of learners; a process that reflects the methods and learning activities used to meet learning goals and the product which is the learning outcomes. Wiggins and McTighe⁵⁷ discussed backward design, meaning that outcomes need to be determined first, as these will in turn influence what evidence is needed to assess the outcomes or learning and from this appropriate teaching should follow. The extent of literature available on writing goals and objectives bears testimony to the critical role of these in curriculum design.

Thus in terms of learning theory and learners, the LRWR module framework encompassed consideration of learner individual and group characteristics, including learning styles and what these meant for teaching and learning; active and deep and surface learning; content and process.

4.2.7.4. Information literacy

The acknowledged need for broad based IL programmes has been boosted by the electronic revolution. Librarians in particular acknowledge that whilst format and a new range of information sources do require new ways of thinking about and approaching information seeking and usage, the new environment does still require

⁵⁵ N Entwistle and C Smith. "Personal understanding and target understanding: mapping influences on the outcomes of learning." (2002) 72 *British Journal of Educational Psychology* 327-328; J Biggs. *Teaching for quality at university*.y (1999) 25-26; D Laurillard. *Rethinking university teaching*. 2nd ed. (2002) 62.

⁵⁶ B Joyce, E Calhoun and D Hopkins. *Models of learning – tools for teaching*. 2nd ed (2002).

⁵⁷ G Wiggins and J McTighe. *Understanding by design*. 2nd ed. (1998) 14-23.

the basic aptitudes expressed in library and general IL standards. The library literature reviewed makes it clear that computer literacy and IL are not the same thing, computer literacy forming part of the broader package called information literacy. If users are computer literate, what exactly does this mean in the information seeking situation? Users need to be independent and life long learners. The electronic environment poses new challenges for educators and librarians; it raises many questions including:

does the Web simply pose a new institutional challenge to librarians to help students more effectively use and critically analyse a pool of information that potentially enriches the educational environment and experience?...Or, does the Web enable students to take the path of least resistance to avoid real research, avoid engaging the deeper, more difficult questions inherent in an education, and does it encourage plagiarism?⁵⁸

In terms of the ALA definition of IL (see Ch.2: 2.1.2.), the process of engaging with an information need and identifying, finding, using, evaluating and applying information to a particular situation, lends itself well to a learning and teaching approach which presupposes an active and problem-solving approach and suggests appropriate content to become or improve information literacy. Implicit in IL is the range of skills incorporating reading, writing, critical thinking, creative thinking and reflection thus an IL paradigm was considered feasible for the re-development of the LRWR module.

As with modern educational thinking, IL is seen as being a combination of product and process which is learner centred and the learner takes responsibility for managing his/her information environment. Within the formal education environment IL education is often offered by librarians. IL has moved along a continuum from a bibliographic approach to one where identifying an information need, and then locating, evaluating and using that information, recognising the context within which information is produced and used and applied. IL frameworks and standards reflect sound pedagogy, the role of instructional methods, assessment and evaluation of programmes. Librarians, like other educators, are still

⁵⁸ J Buschman and DA Warner. "Researching and shaping information literacy initiatives in relation to the Web: some framework problems and needs." (2005) 31(1) *Journal of Academic Librarianship* 12; JD Jenson. "It's the information age, so where's the information? Why our students can't find it and what can we do about it." (2004) 52(3) *College Teaching* 13p. Online: Ebscohost Research databases. Accessed: 18.10.2005.

grappling with the effect of technology on information access, selection and use by learners and the impact this has on IL programmes and how they should be designed. IL acknowledges the role of learning styles, the need for a problem solving approach and critical thinking skills application to addressing information needs, as well as instructional approaches and methods that encourage deep learning. The problem is how to implement the IL frameworks in practice. Planning is a critical component for formal IL programmes. The literature has indicated that IL has been applied across a wide range of disciplines, in a wide variety of ways, given the flexibility of the concept and associated processes.

4.2.8. INFORMATION SOURCES AND BIBLIOGRAPHIC TOOLS

The characteristics of research, the discipline of law and IL presuppose the content of a module such as LRWR to specifically include coverage of a range of information sources and bibliographic tools. However, which ones, the extent of coverage of them, formats and how to use them, both practically and in terms of research needed to be determined. It was decided that the focus of the LRWR module should be predominantly South African published information namely law reports and statutes, journals and books and specialist publications. The associated tools included the Library's catalogue and website as a portal to accessing information, databases and indexes, particularly with respect to printed sources of information. As many small law firms do not have access to electronic resources, both print and electronic sources were covered. Given that South African law does not exist in a vacuum, exposure to foreign databases was included. Particularly important was an overview of the 'bigger picture' – the changing information environment, the World Wide Web, fee versus free resources and the advantages and disadvantages of the various formats.

4.2.9. MONITORING

An important feature of any module should be an evaluation of content and processes both from the perspective of the learners and teacher. Evaluation is necessary for module development.

4.2.10. SUMMARY

As has been indicated, the design of the LRWR module was informed by a wide range of factors which affected both content and process in terms of teaching and learning methods. The module attempted an alignment of authentic assessment, aims, objectives and outcomes informed by an information literacy paradigm and a student-centred active learning approach. The design of the module required cognizance to be taken of theory and practical aspects relating to learning and teaching.

4.3. THEME AND CONCEPTUAL FRAMEWORKS FOR THE MODULE

The design of the LRWR module incorporated the use of a number of frameworks for different aspects of the module within the overall theoretical framework. In order to provide the learners with a framework for the approach of the module and emphasise the focus on finding and using information and that research and problem-solving involves process, knowledge and values, the following theme was adopted for the module:

There is no such thing (in law) as a right or wrong answer, only a well defended answer

For the students the problem-solving framework was couched in terms of a statement as regards practitioner type problem-solving and requirements for an academic type of problem-solving assignment. These were provided as part of the introductory notes to the course and were constantly referred to so students could identify with, and keep track of the stages in the process.

1. 'The student should be able to understand the client's problem; find the relevant legal sources; apply the relevant principles to the problem; construct arguments from fact and law to support different sides of a case; assess strengths and weaknesses of a case; communicate this orally and in writing in a way which the client can understand and find

practical solutions and exercise a degree of creativity'.⁵⁹

2. 'Every assignment should reflect your best attempt to answer the question and analyse the relevant issues and legal principles by taking cognisance of the topic, the task at hand and limits'⁶⁰

A good assignment should thus demonstrate:

- A thorough understanding of the topic (including arguments and debates and strengths and weaknesses of these)
- The approach or requirements of the assignment (compare; describe; critically evaluate)
- comprehensive and up to date research and critical reading and evaluating in order to identify, understand and apply relevant law
- concise and coherent explanation and presentation of well supported argument
- full and accurate citing of sources of information

4.4. STATEMENT OF GOAL AND BROAD OUTCOMES FOR THE MODULE

The practical goal in the instance of LRWR, can be described as a broad statement that indicates what the module aims to achieve. The goal of the Legal Research Writing and Reasoning module, according to the author, was to:

Provide the learner with a thorough, albeit introductory grounding in the multifaceted process of research, and in particular legal research, to second year undergraduate law and Legal Studies students and enable the learner to situate the interrelated activities of research, writing, reading and reasoning in as practical and realistic (South African) context as possible given the constraints associated with the current nature of University teaching and learning programmes.

⁵⁹ P Clinch. *Teaching legal research*. (1996) 6. It is acknowledged by this author that this statement may be too narrow; in that often more than simply legal sources need to be consulted, but the succinctness of the statement makes it useful for students to grasp.

⁶⁰ Taken from a guide produced by the University of Sydney:
www.usyd.edu.au/le/admin/guidesandhelp/Assignment%20Guide%20Consolidated%20draft.doc. Accessed: 8.01.2006.

At the end of the module students should be able to:

- describe and demonstrate a knowledge of the concepts, practical and cognitive processes, skills and tools necessary to undertake research with particular reference to legal research
- identify, locate, evaluate and use sources of information for a range of situations
- demonstrate a critical approach to problem-solving and reading, evaluating and applying the law in particular to a range of situations
- demonstrate the ability to write for a range of situations
- acknowledge the importance of the broader socio-political-economic-cultural content within which the development and practice of law is situated

4.5. BROAD LEARNING OBJECTIVES AND SPECIFIC OUTCOMES FOR THE MODULE⁶¹

Objectives are those constructive activities that will accomplish the goal and help achieve the outcomes. Although objectives tend to reflect a linear approach to the information literacy based research process, the module is designed to be taught in a manner that indicates the interrelationship of the objectives and covers product as well as process and behaviours. Below is presented five broad learning objectives and corresponding outcomes. From the constructivist and relational points of view, objectives cannot be rigidly specified because ultimately the learner responds to them in terms of their experience of the information environment and their understanding or construction of it. In the formal education setting, objectives however provide the framework for those experiences and constructions without dictating how the experiences and constructions must happen. Individual and collective cognitive and behavioural activities inform the relationship between individual, the information environment, the problem-solving experience and the value added to the knowledge and understanding of the learner.

The outcomes and objectives were formulated after consideration of the range of definitions and characteristics of IL, and in particular the ALA definition; the ACRL standards, models such as that of SCONUL, the South African outcomes provided

⁶¹ The objectives and outcomes are presented on the module template (appendix one) differently from this chapter because of the format requirements for the template.

by SAQA, and the nature of legal research and the study of law both from an academic and practitioner point of view (see Chapter two). The word 'student' has been used in the objectives as these objectives have been designed for the formal legal research programme within the formal education environment. This also acknowledges that students enter this formal process with a range of IL 'knowhow' but largely as novices.

Objective 1 and outcomes

By the end of the module:

1. *The student will be able to analyse a topic, formulate a problem to be solved, and articulate a need for information in order to provide an answer for a range of situations.*⁶²

- The student will be able to critically analyse a range of scenarios to formulate the question to be answered in terms of identifying legal facts, issues, area of law and subject matter
- diagnose a need for information by identifying what is known based on prior knowledge, the information at hand as well as gaps in current knowledge
- formulate possible scenarios to resolve a situation
- devise an appropriate search strategy in order to resolve the information gap

Outcomes:

For given situations the student:

- critically analyses particular situations to understand and interpret the subject matter and aspects of and parameters of the situation at hand
- identifies the legal facts; extrapolates the legal issue/s in terms of the information at hand in order to formulate the problem question
- acknowledges the client's circumstances
- specifies those questions which need to be investigated to resolve the issue/s and problem
- recognises and draws prior knowledge that is relevant to the situation

⁶² This objective presumes that for students and potential practitioners, assignments and problems or scenarios will present themselves, they will not have to be identified by the student. The student /practitioner will rather need to identify the legal issues and formulate the exact problem to be resolved within the scenario.

- question negotiates with the situation to determine what information is unknown
- outlines courses of action for investigating a situation and finding needed information
- formulates a search strategy based on the information gap identified at that point in time; knowledge of the range of sources available and identification of appropriate sources
- translates a situation into succinct concepts to inform the search strategy and later searching for information
- conducts an initial search for information to gain background information and understanding where necessary
- critically reads and evaluates relevant information, consults appropriate persons such as colleagues or librarians and then reassesses the issues and questions
- reflects on search strategy and evolving information picture and possible solutions
- revises search strategy where necessary

Objective one presumes there is an initial problem and information need as the nature of legal practice is one of solving problems. The ALA definition of IL begins with reference to the person recognising a need for information; the ACRL standards emulate the need to define and articulate the need for information (Ch. 2: 2.2.4.). In terms of the legal process of FIRAC (Ch.2: 2.2.5) the student needs to be able to identify the material facts and issues and area of law; in a nutshell the process of topic analysis. Recognising a need for information is dependent upon understanding the problem or situation and identifying what is known and unknown. This may be a circular process as some reading and research may be needed in order to understand the problem and crystallise issues and then needed information. This reflective and recursive process is essential according to Schon (Ch.2: 2.2.2). Whilst the process of topic analysis may be regarded as a generic one, in the study of law, identifying the issues, and correctly, is critical as these reflect the problem to be resolved. It is often the identification of issues that is most difficult for law

students. The SAQA requirements (Ch.2: 2.2.7) are broad and refer to the need to be competent in the application and methods of legal research.

Objective 2 and outcomes

By the end of the module

2. *The student will be able to appropriately and efficiently identify, select and access a range of information sources in a range of formats, using a range of tools, for specific information needs in order to build an answer for a range of situations.*

- The student will have a broad understanding of the information environment both electronic and print, in order to contextualise their information search strategy
- explains why a range of sources may be needed to be used for providing needed information
- identifies a potential range of appropriate primary and secondary sources of information available, and in particular legal sources of information, namely law reports, statutes, government publications; books and journal literature and law commission reports
- explains the nature of and differences in the content of different sources and content arrangement
- explains the dynamics and characteristics of print and electronic information
- locates and accesses sources of information both print and electronic using a range of appropriate tools
- compares information from different jurisdictions and the persuasiveness of these
- for given specific situations, demonstrates appropriate selection of and proficiency in the use of these sources of information, both print and electronic

Outcomes:

a) With respect to the categories of information the student:

- distinguishes between primary and secondary sources of information and is able to classify sources according to these two categories

- describes the importance of primary sources to the study of law in particular
- describes how information is produced, disseminated and reflects their purpose and audience
- explains and demonstrates, for particular situations, the range of sources needing to be consulted
- recognises the different contexts within which concepts may be located and the need to differentiate contextual meanings where necessary.

b) With respect to the nature of sources of information and bibliographic tools, and searching for information, print in particular, for given situations the student:

- recognises that the law is not static and its changing nature requires consultation of a range of information sources
- describes updating mechanisms of particular sources
- recognises the need to locate information, locates the most up to date legal information
- recognises the need for using a range of sources to extract relevant information to build an answer, accesses appropriate sources
- describes the nature, content and purpose of particular kinds of information sources and their interrelationship
- understands the difference between bibliographic tools and sources and uses such tools to locate sources of information
- locates a range of printed sources within the libraries on campus by searching the library's online catalogue
- locates relevant information within sources using bibliographic details, contents pages and indexes
- describes the purpose, structure and nature of a range of individual publications and multi-publication indexes
- locates and uses specialised sources such as dictionaries, legal encyclopedias, law reports and statutes
- demonstrates the use of printed indexes to locate legal information in a variety of ways
- describes and demonstrates the maxim of 'one source leads to another'

- describes the purpose of in-text citations, particularly footnotes and identifies and follows up on citations
- evaluates sources of information and bibliographic tools in terms of appropriateness for a given situation.

c) With respect to electronic information, for given situations, the student :

- identifies the characteristics, advantages and disadvantages of different formats of information sources: print and electronic
- explains the difference between the visible and invisible web
- distinguishes between full text and bibliographic databases with respect to databases subscribed to by the UKZN library
- identifies and compares academic databases subscribed to by the library with free sites available via facilities such as search engines
- navigates a range of electronic resources via the library's website as a 'one stop information station'
- searches various online academic databases for specific information
- constructs online searches using search features such as Boolean operators, synonyms, truncation etc
- explains and demonstrates the use of controlled vocabulary and natural language
- implements a search for information
- searches and evaluates a range of websites according to basic criteria
- records details of sources used in a search for information
- retrieves, collates and organises documents successfully.

d) With respect to comparative information, particularly legal information, the student:

- discriminates between information about and from foreign jurisdictions and South Africa presented within sources of information as well as among available sources
- describes when, why and how information from other jurisdictions can be used in a South African context, particularly in the light of Constitutional provisions

- presents a comparative overview of the law with respect to a matter at hand.

This second objective is core to the formal academic delivery of IL Programmes. The ALA definition of 'locate, evaluate and use' indicates three distinct but interrelated activities. The ACRL standards separate out the access, evaluation and use of information and sources into three separate standards. SCONUL separates out the activities of locating and accessing and then comparing and evaluating and then organizing and applying. The second objective of this study relates to Bruce's 'information concept' and 'information process' experiences (Ch.2: 2.1.7.3). Within the study of law it is particularly important to identify primary and secondary sources. The primary sources are authoritative and binding and are the sources of the law and must be used to support argument in the first instance. In the South African context particular sources of legal information exist and South African law is binding whereas foreign law merely persuasive (Ch.2: 2.2.).

University libraries have and provide access to a range of information resources in ways that may be unique. It is critical that students understand the nature and existence of the 'free' versus 'fee based' resources and different routes of access. Many small law firms in South Africa cannot afford access to even the core print or electronic legal materials so it is important for students to have a broader understanding of the larger information environment.

Objective 3 and outcomes

By the end of the module:

3. *The student will be able to critically select, read and evaluate information in order to design and build an answer for a range of situations. S/he will be able to:*

- critically read, select and evaluate sources of information for specific needs
- assess appropriateness of information gathered, evaluate the extent to which information gathered supports argument and reflect on gaps

- appraise the multi-cultural context within which the South African law is situated and being developed and evaluate information in the light of this
- build on prior knowledge and recognise the value added from consulting a range of sources and construct new meanings
- prepare and develop arguments for a range of situations demonstrating how to substantiate an argument
- recognise that there are different possible solutions to many problems
- recognise and demonstrate the need to consider all sides of an argument
- apply the law to a given situation
- understand the concept of, and demonstrate the ability to apply the law for given situations
- substantiate an answer for given situations
- revisit issues and plan to ensure there is a match between information found and solution scenarios for the issues.

Outcomes:

For given situations

a) With respect to reading different kinds of text the student:

- demonstrates a basic ability to recognise the structure of academic texts as well as cases and statutes
- applies any method for assisting in critical reading such as highlighting and note-making
- recognises the difference between paraphrasing and summarising
- reads and summarises academic text according to basic guidelines
- reads to extract relevant information
- reads for convergence and divergence of information and thus builds a body of evidence
- reads to identify facts, issues and judgments in a case so as to recognise the applicability of a case to the specific facts of a situation
- reads and describes the purpose, structure and text of a simple statute
- reads to build a body of evidence.

b) With respect to selecting and evaluating information the student:

- acknowledges the potential need to use information from a range of sources
- recognises the importance of locating the most recent law or information depending on the situation at hand
- applies evaluation criteria to located information
- identifies and acknowledges author biases and focus and the implications of this for the use of information
- reads critically to extract that which is relevant to the situation at hand
- acknowledges contradictory information and evaluates it in the light of argument
- takes cognisance of the multicultural and socio-economic-political situation, both historical and current, in South Africa, to critically evaluate the law and the circumstances that have given rise to a given situation
- understands the pre 1994 and post 1994 (post Apartheid) constructions of the law and the post 1994 evolving process of legislative reconstruction in South Africa
- acknowledges his/her own biases and critically explores personal presumptions when dealing with a specific situation and evaluates these in the context of the law
- recognises that free availability of information is not guaranteed
- synthesises information and constructs particular arguments
- draws conclusions based on evidence collected

c) With respect to building an argument, or answer, the student:

- recognises and demonstrates for a range of situations, that there are different ways of presenting arguments
- adds new knowledge to prior knowledge and builds an argument
- revisits opinion and argument in the light of new information
- recognises and demonstrates the need to substantiate argument with reference to the law and authoritative authorship

- recognises and demonstrates the need to consider all angles of an argument and explore counter arguments in order to develop a well reasoned argument
- describes how and why the law must be applied to the facts at hand
- recognises and demonstrates application of the law to the facts at hand
- discusses in groups or class situations so as to be exposed to a range of verbal opinion and add to the body of knowledge.

This objective for the LRWR module specifically emphasises reading whereas in the organisational definitions and standards etc mentioned above, reading is largely implied. Evaluation has tended to refer to consciously selected criteria such as date, authorship, bias, level of detail, accuracy, appropriateness, jurisdiction and so on. It has also meant relevance and comparison of sources, extraction and synthesis of main ideas from text (ACRL standards, SCONUL). In terms of legal research the different sources of law are used in different ways because of their primary and secondary status and need to be selected, analysed and information extracted in particular ways. Thus it is imperative to know how to read these different sources of law. In the study of law it is acknowledged that one is building an answer not necessarily finding an answer and that this answer needs to be substantiated and argued with consideration of the various viewpoints. In terms of the notion of precedent in the study of law, notice must also be taken of how to apply the relevant law and information to the issues at hand (See Ch.2: 2.2). It is particularly important in the study of law that one know how to construct and write argument and apply the law (cases and statutes predominantly).

Objective 4 and outcomes

By the end of the module:

4. The student will be able to present information in different ways including comprehensive written form reflecting a well structured response for a range of situations.

- The student will be able to present information for different purposes in writing that is logical, well organised, using appropriate grammar and vocabulary and writing style

- The student will present argument that is well structured and supported by authority.

Outcomes:

The student:

- demonstrates competence in following instructions and format for a given written situation
- recognises and applies the basic structures of writing to a range of written pieces of work – short focused pieces of work; essay and opinion – in terms of grammar, introduction, middle and conclusion, appropriate use of vocabulary
- demonstrates the ability to write for particular situations
- demonstrates the ability to master basic word processing functions as well as spell check and footnoting
- integrates information to produce a logical well reasoned, clearly explained and structured written argument that reflects, where necessary, different judgments and points of view and a critical approach to information
- demonstrates the ability to distinguish between personal opinion and that of the law where required
- recognises and states and explains legal rules
- applies the law in a coherent manner
- creates a cogent response that reflects the integration of access to, location and evaluation of information and sources, construction and substantiation of argument and presentation of response in a required form
- acknowledges different disciplinary discourses and how these impact on communication of information

It is acknowledged that information is usually sought for a particular purpose, within a particular context and different disciplines and professional activities have their own presentation requirements for written and oral work. The practice of law is steeped in the written tradition and there is a wide range of types of legal documents that the student and practitioner must be able to produce. Not only must students develop skills of basic good writing (grammar, spelling) but framed within the

specifications of legal purposes. The ALA definition states the need to use information effectively. 'Effectively' is not qualified and could be interpreted in a positivist light but it can also be presumed to refer to fitness of purpose, accuracy for the situation at hand and sufficiency in terms of problem resolution. This is also reflected in the ACRL standards which include review of processes, successes and failures. SCOUNL reflects the LRWR fourth objective in terms of its two strands of organizing, applying and communicating and then synthesising and creating. These aspects of synthesising and creating are increasingly important in terms of arranging and storing information collected for future use but also acknowledging that the IL process is one of knowledge building but also creating and often constructing a new concrete document that becomes a source of information in itself. This is reflected in Bruce's knowledge conception experience of her model.

Objective 5 and outcomes

By the end of the module:

5. *The student will be able to acknowledge the legal and ethical considerations associated with information and display references according to specified formats*

- the student will be able to explain the need to acknowledge the work of others and describe the nature of plagiarism
- the student will be able to acknowledge and accurately cite literature used in written work according to selected formats

Outcomes

The student:

- recognises that access to information is affected by factors such as cost, censorship, copyright, freedom of speech; fee versus free access
- describes the nature of plagiarism and the reasons for acknowledging the work of others
- cites all sources of information used in accordance with specified formats for footnotes and list of works cited for a range of given exercises
- recognises that bibliographic tools are not cited
- recognises the need for consistency in the first instance given the variance of citation methods.

There is universal consensus that plagiarism is an essential issue to be addressed and concomitantly appropriate methods of acknowledging resources adhered to. The common form of citation within legal publications is footnoting. Given the importance legal authors (here also referring to case law) attach to substantiating argument it is important for students to know how to read as well as create citations.

4.6. TEACHING METHODS

After experimenting with different ideas and considering the literature, the author determined that a combination of teaching methods was appropriate, particularly in the light of an interest in developing a more constructivist learning environment and active learning approach. The objectives and outcomes and learner centred approach also necessitated multiple methods. Much background information required direct input some involving a Socratic intervention although in a large class participation was initially not forthcoming. Input by the author was often followed by, or interposed with brief worksheets and discussion. As the problem-solving approach was chosen, the author emphasised group discussion and feedback which was popular. This allowed the class to take responsibility for the learning and allowed the author to facilitate rather than dictate. As the problem was one that reflected multiple possible solutions, it meant that the author could play devil's advocate and challenge students to rethink notions, explore alternatives and ask questions that made them uncomfortable, thus stimulating interest and making them think at a deeper level. Some exercises followed the pattern of 'do, followed by input then redo'. The teaching methods will be discussed more fully in the following section on the programme itself.

The module was presented in the first semester in the first half of the year. The module comprised 22 lecture slots; a single lecture period on a Monday and Tuesday afternoon respectively, each lecture period lasting 45 minutes. On occasions a third lecture slot in a week was used. The official timetable had allocated four lecture periods a week for the module. These slots are pre timetabled by the University timetabling committee. Two periods in two days allows for continuation of ideas. Being at the beginning of the week, work handed in for assessment could be returned the following Monday and timeous feedback thus provided before students forgot the tasks, and feedback acted as a review of the

work done to date. Nine additional practical periods were included in the module to facilitate exposure to and handling of information sources which cannot be done in large classes. A set of notes was provided, covering mainly background information as a backup for the classes and included examples and instructional information for sources. The notes were referred to regularly in class. Although a content programme was determined for the semester, the full number of lecture slots was not allocated to allow for flexibility to explore ideas further or accommodate a 'bad day' being had by the students or to review a difficult area.

A senior student was appointed as tutor and helped with preparation, practicals and also attended most classes, particularly those where group work and discussion was to take place. This meant both the author and the tutor were able to circulate during small group discussion to answer questions, pose questions, clarify work and discuss with the groups.

The first lecture comprised a pre-test. The purpose of the pre-test (and later on the post-test) was to identify what the students did and did not know or recall thus acting as confirmation of content in the module as well as indicating particularly weak areas that might need scaffolding or extra work. The post-test provided evidence as to what and whether improvement resulted from attendance in the course. Comparison with the post-test also assisted in planning for the next year's module.

In 2005 the author made a particular point of commenting in writing as fully and as positively as possible on student work and also being as positive as possible in class feedback sessions. Where particular problems occurred it was feasible to be good humoured about them. Although there is a downside to praising those who do particularly well; the author also named students in class who did well or made interesting observations, and on occasions read out student work as an example. The effect was remarkable. After just two instances of this, the class became quite lively and more relaxed and looked forward to the next feedback. Whether it prompted learning cannot be determined but it did appear to be a motivational factor. This approach has been maintained. Students were also encouraged to query comments and could redo class and homework exercises, an opportunity taken up by at least a dozen students on a regular basis each year.

Once the goals, objectives, outcomes and teaching methods had been determined, the SAQA template for the module was restructured. (Appendix one).

4.7. PROBLEM-SOLVING FRAMEWORK FOR THE MODULE

The rationale for, and nature of the problem-solving approach is presented below along with a description of the model adopted for the module.

4.7.1. RATIONALE

After several years of experimenting with different approaches to teaching the LRWR module, and consideration of the theoretical and practical background to teaching information literacy expounded in the literature review, the author chose a problem-solving approach for presenting the module, for various reasons. A problem-solving situation in a module such as LRWR allows for:

- an indepth focus on a particular situation or problem. Many substantive courses aim for quantity or a broad overview or focus on a few selected themes. Not often is any one particular topic dealt with in any real depth.
- depending on the nature and complexity of the problem, it challenges students along a continuum of complexity, to consider the problem from a new perspective and think more deeply; as well as consider the same problem from different angles. This approach hopefully reduces the attempt by students to learn a formulaic and one-size-fits-all approach to problem-solving and finding and using information.
- more active participation by the learners when it is a problem that needs solving. With active learning students are better able to demonstrate understanding. 'The problem drives the learning, rather than acting as an example of the concepts and principles previously taught.'⁶³
- the more ill-defined a problem the more likely the student will need to take ownership of the problem and thus be more motivated.⁶⁴ An ill-defined problem that presents various possibilities for solution requires the student to substantiate argument and make and defend judgment; question their own

⁶³ D Jonassen *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 218.

⁶⁴ D Jonassen *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 219.

values and notions and ‘test’ their prior knowledge. Depending on the problem the students may be forced to move out of their ‘comfort zones’ and confront and apply reason to socio-economic-political-moral issues and realize that they are themselves situated within the context under discussion

- a problem has the potential to allow students to see the process of research and information literacy unfold in a more coherent manner where the components fit together as part of a whole and the whole is bigger than the sum of the parts
- scaffolded development of necessary skills and learning.

The study of law by nature is case based reflecting specific problems which are solved in terms of the application of principles of law and precedent, so how is this different? Much substantive law is taught in terms of principles of law first, followed by examples of cases to illustrate – theory to practice.⁶⁵ Tutorials and examination questions often take the form of problems to which the law must be applied - practice to theory. The information literacy framework and the constructivist learning environment model for a based problem-solving situation in LRWR is the practice-to-theory approach. The full spectrum of prior knowledge can be explored before being ‘fine tuned’ in terms of a legal response via scaffolded development of the full process of arriving at an answer. This approach reflects the information need/locate/evaluate/use/apply dimension that is not usually an integral part of substantive teaching, although this is changing. In substantive modules, many topics are covered.

4.7.2. PROBLEM SCENARIO

It is well established in the literature that problem-solving encourages active participation in learning, requires application of and testing of knowledge and skills and use of critical thinking, all which can encourage deep learning. Jonassen advocates the use of an ill- structured problem in particular. Such a problem is best for promoting deep learning where the problem requires complex question negotiation with the situation to determine the nature of such problem and issues to be dealt with; when the problem encompasses more than one possible solution and

⁶⁵ L Carder et al. “Case-based, problem-based learning information literacy the real world.” (2001) 18 *Research Strategies* 183.

more than one path to resolving the problem. Jonassen⁶⁶ indicates that a suitable problem or case study for a constructivist learning environment is one that:

- is situated within a particular context; where the environment of and 'physical resources surrounding the problem'⁶⁷ need to be made available to students; the beliefs and values of the community involved is known
- is 'interesting, appealing and engaging. It must perturb the learner.'⁶⁸
- Is authentic, an everyday real problem, reflecting the kinds of cognitive challenges of the real world
- allows learners to be active and the problem must allow them to manipulate something and affect the environment. In terms of an ill structured problem, learners will have to articulate and substantiate solutions⁶⁹
- allows learners to explore and acknowledge personal opinions and beliefs and how these do not necessarily fit with professional opinion
- involves the use of multiple related cases so learners can develop the ability to build experience for problem solving and allows for scaffolding of 'memory' or prior experience; scaffolding supporting learner activity
- allows for the provision of a set of related cases to learners so they can 'identify the lessons that each one can teach, characterise the situations in which each case can teach its lesson'⁷⁰ and recall these at a later stage when substantiating an argument
- of necessity, requires provision of information so learners can understand the problem, construct their mental models and develop hypotheses. Some information must be provided, but some must be sourced by the learners as part of the process
- lends itself to group work and thus shared knowledge and experiences which stimulate learning and interest in the problem.

⁶⁶ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 219.

⁶⁷ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 220.

⁶⁸ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 221.

⁶⁹ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 223.

⁷⁰ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 224.

Jonassen indicates that the above are the advantages of using an ill-structured problem. In particular; ill-structured problems: ⁷¹

- ‘have unstated goals and constraints
- possess multiple solutions, solution paths, or no solutions at all
- possess multiple criteria for evaluating solutions
- present uncertainty about which concepts, rules and principles are necessary for the solution or how they are organised
- offer no general rules or principles for describing or predicting the outcome of most cases
- require learners to make judgments about the problem and to defend their judgments by expressing personal opinions or beliefs’

For all the above reasons, the basis of the case study problem chosen for LRWR in 2006, as had been the situation in 2005, was a controversial topic and represented in the form of an article from a local newspaper. This provided an authentic situation and presented a particular situation with respect to the topic, and at a particular point in time, so the picture was incomplete, and, many pertinent details missing. The article chosen reflected the complexity of South African society, and the topic, corporal punishment, reflected an intensely emotive and only partially resolved issue in South African law. The topic experimented with in 2005 was of a similar controversial and ill-structured nature, abortion. Corporal punishment is also a topic that the students could identify with personally. The scenario took place some 40 km outside Pietermaritzburg so was ‘close to home’.

The choice of a newspaper article was also deliberate in that newspaper articles provide other useful dimensions as an ill-structured problem. Newspapers report at a particular point in time so often facts, issues and outcomes are incomplete; much language or included facts and details are often emotive and show a human side to a story so provide an opportunity for the student to have to think about the facts in order to distinguish between legal and other facts. Newspaper articles do not necessarily reflect objectivity and reporting is sometimes inaccurate. Headlines are often intended to be eye-catching and reporters, as was the case with the chosen

⁷¹ D Jonassen. *Designing constructivist learning environments*. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) vol 2, 219.

scenario, emphasise a particular statement or sentence someone says, which may well be misleading when treating the article as a legal problem to be solved. As law students, the idea was to show them how to explore a problem from three perspectives; a personal, gut feeling type of perspective, an academic one as well as from a legal perspective in particular.

The challenge is to find a scenario that not only meets all the above requirements but about which there is a spectrum of legal literature, particularly case law as well as 'non legal' literature.

4.8. ASSESSMENT FOR THE MODULE

A critical component of any educational programme is assessment. As indicated in the literature review (see Ch.2: 2.3.10.), much has been written about the nature of, value of, kinds of and debates around assessment. Ultimately assessment should take place in an attempt to establish whether learning has taken place; to identify problem areas in terms of teaching and learning in order to provide interventions to assist learning and provide learners with feedback. Assessment needs to be appropriate and authentic. The author chose to incorporate a variety of assessment methods because the particular nature of aspects of the module necessitated it, to align objectives and outcomes, but also to accommodate learning styles and hopefully challenge students outside of conventional patterns of assessment. Continuous and forward assessment was considered the main forms of assessment as several years of teaching the module had indicated the need for scaffolding and reinforcement requires feedback if improvement is to be made by students. In the first two years of study at university, most law students are assessed predominantly in terms of written tests, comprising multiple-choice questions, short questions or essay type questions; tutorial work involving problem-solving situations, an occasional essay, worksheets and case analysis. One second year course involves a portfolio of worksheets.

Given the name of the module, and the focus on writing within the legal profession, assessment focused strongly on written work in various forms. The assessment was largely continuous in nature with some summative testing. The assessment

activities, some 13 in total, reflected a gradation of degree of difficulty and application of skills and knowledge in different ways. In terms of objective one, analysing a problem and identifying a need for information, actual scenarios from newspapers were given to students. Accompanying worksheets and exercises were assessed to ascertain the student's ability to analyse a topic with all its related aspects. In terms of the knowledge of and use of sources of information, hands on exercises took place during tutorial or practical periods and written exercises to reinforce the practical period were handed in. Students then had to apply these skills and knowledge to a range of situations.

4.9. INTEGRATION INTO OTHER MODULES

As already noted, the literature reflects differing points of view about the effectiveness of stand alone skills based modules versus those integrated into substantive modules and the advantages and disadvantages of each. It is generally accepted that information literacy integrated into substantive modules is seen as more effective for the imparting of and connection between otherwise discrete units of knowledge. The UKZN law faculty, like others in the country has chosen the route of stand alone information literacy equivalent or legal method type modules in either first or second year, with some offering advanced modules. The author has taken the route of using a particular topic problem as the subject framework for the LRWR module and has managed to get as far as finding topics that fall within a substantive module, namely criminal law that runs concurrently with the LRWR module. The topics to date have required the application of criminal law principles and visiting of issues so there has been reinforcement of criminal law material in the LRWR module. The author has thus worked with the criminal law lecturer, to be familiar with the requisite criminal law, the criminal law timetable and the criminal law lecturer provided direct lecture input into the LRWR programme as well as general advice. The criminal law class was required to write an essay and they were required to apply knowledge and skills from the LRWR module to that essay.

Almost half of the students registered for the LRWR module are Legal Studies students; students from disciplines other than law who are majoring in Legal Studies. There is always a small cohort who has not done or is not doing Criminal

Law because of the nature and structure of their degrees. As the complexity of the topic needed to be accessible to these students lectures were provided where necessary to give the students sufficient background to manage. Such affected students have not yet indicated difficulty with managing the subject matter.

The year 2006 proved to be a difficult one with university staff choosing to go on strike over registration at the beginning of the year which continued into the scheduled first week of lectures. Although the author chose to adhere to the original timetable, many students did not turn up for class in the first and even second week, so the pre-test was not administered to the full class.

4.10. SUMMARY

The module was designed in terms of a framework that took cognisance of the higher education environment, characteristics of learners and theories of learning, teaching, instructional design, the relationship between teaching and learning, active learning, assessment and information literacy. From the theoretical framework as well as an understanding of the general problem-solving approach advocated in the study of law, and taking cognisance of the tensions between professional education and professional practice, the theme, goals and objectives and teaching and learning activities for the LRWR module were formulated.

The ill-structured problem provided a framework for students to explore in considerable depth what initially appeared to be, on the surface, a fairly straightforward problem. Dealing with the problem in depth allowed for its investigation from particular perspectives, and discovery of the complexity of the broader nature of the topic. This journey of discovery allowed for students to internalise the topic and explore their own personal attitudes and consider these in the light of broader legal and social perspectives that were often in conflict with their own views. More specifically, the ill-structured problem lent itself to the immersion in the process of establishing the pertinent facts and issues: what was known and unknown about the scenario; what information was needed; different ways to approach the resolution of the issues; finding and applying relevant information and precedent in terms of substantiating an answer; discovering the existence of, and

nature of opinion and research within the information environment, and different possible outcomes.

The following chapter presents the layout of the LRWR module in detail in terms of how the module was designed and implemented to accommodate the use of an ill-structured problem to teach and learn legal information literacy within a constructivist, active learning environment.

CHAPTER FIVE

THE LRWR MODULE

Based on the theoretical framework and goals and objectives outlined in Chapter four, the LRWR module was designed using a single but multifaceted problem as a framework within which to situate the IL goals and objectives. The instructional design in terms of objectives and outcomes, content, assessment, learning activities and instruction methods was formulated largely in line with the constructivist problem-solving approach advocated by Jonassen. The methods of instruction attempted to accommodate the various learning styles and an active learning approach. A variety of assessment methods were used and were summative and formative in nature. This chapter serves to provide a description of the nature of the roll out of the module on a week-by-week basis. The delivery of the LRWR module in 2006 took place in the first semester which began in mid February and ended at the end of May. In terms of the official timetable four lectures per week were scheduled but as this was an eight credit module, two lectures per week is the norm which was adhered to with an occasional extra lecture period being used. The lecture periods were of 45 minutes duration each. Separately scheduled classes for practical work with the sources law were negotiated on a week by week basis with the students. Between seven and ten practical classes were offered per week in order to accommodate the need for small groups and the variant student timetables.

This chapter serves to provide an overview of the actual roll out of the module. It is however not exhaustive and reflects more the activities of both teaching and learning and the responses to these by the student body.

5.1. THE PROBLEM-SOLVING SUITE

A newspaper article formed the foundation of the topic problem. Although the author acknowledged the need to be able to apply and use skills, knowledge and understanding to a range of different situations it was determined that it was important for law students in particular to be able to take themselves out of a certain mindset with regard to a topic or problem and its solution, and re-consider and

expand the boundaries of the same problem from a range of perspectives for different purposes. This way the students would have to really think deeply about information and write from viewpoints that might be uncomfortable for them and something they need to develop for their careers. The use of a problem would also expand their repertoire of abilities to think and write for different audiences in different formats and at different levels. Thus a suite of scenarios on the topic, or three pronged approach to the topic was used to provide a complete picture of the topic. This was elucidated in the previous chapter.

The first scenario was followed later by an editorial written by an African South African arguing for his right as an individual to decide about corporal punishment, and questioning the rights of law-makers to 'inflict' laws that were out of touch with reality, on individuals. This editorial served to highlight the broader context in which law is made and operates as well as moral versus legal rights and obligations and the individual versus the state. It also reflected the complexity of cultural, racial and social contexts in South Africa. This article also brought into focus constitutional and human rights issues and the broader context of South African legal development rather than the breaking of a single law as was the situation in the first article.

Finally students were asked to consider the issue of whether South African parents should smack their children. This matter, in 2006, was still undecided in South African law and had received a fair amount of media attention in terms of wide ranging reports on investigations into corporal punishment undertaken by research organisations to a popular women's magazine, this article appearing just two weeks into the semester. This concise question gave students free reign to research and substantiate an answer for themselves, outside the confines of a particular legal purpose or legal principle. This meant that students had to build on what had been learnt, had the freedom to use any information from any discipline relevant to the topic but had a chance to now take a personal stance if they so wished. Search engines revealed very few 'pro-corporal punishment' arguments, debates and organisations.

Although this triad of the initial article, the editorial and the broader question of parental smacking was considered the basic outline in terms of subject matter, the lesson plans were flexible to allow for variation in time spent on a particular aspect or skill and whether sub topics should be dealt with at all. The author negotiated the progress of the module with the class as it progressed.

The foundation problem was reflected in a newspaper article that was taken from the database SA Media, (located on Sabinet¹) produced by the University of the Free State. The source of the article was the *Natal Witness* newspaper, published in Pietermaritzburg on 3 June 2004. (located on page 3; SA Media classified the article as falling under topic 15; ref no.: 6676; ID: 03093293-01).

There were subsequent articles about this incident that were not given to the students so as to not influence their own problem-solving. Particular necessary extra facts were provided during the progression of the module.

Police probe schoolboy's death after beating by Nathi Olifant

Despite corporal punishment being outlawed in South African schools, a pupil has died after allegedly being punished by a teacher for arriving late at Phezulu High School in Mpumalanga in Hammarsdale, on Tuesday morning. The death of Thuthukani Zuma (16) of Geordedale occurred on International Children's Day.

A similar incident was reported by the press last year in which a Bulwer Primary School teacher, Busisiwe Rosemary Gasela, was arrested after allegedly banging the head of S'khumbuzo Memela against those of his two classmates as a punishment. Memela (8), a Grade Three pupil, suffered a concussion and died later.

At Phezulu High School, classes got off to a bad start after the teacher allegedly used a hosepipe to punish Zuma and other boys for coming late to school. The teacher decided on a "slight" hiding, after which Zuma, according to bystanders, collapsed.

One pupil, who witnessed the incident, told *Echo* that the teacher had been angry and decided to punish the boys. The pupils said Zuma was not the first in line for punishment but when it came to his turn, he received three strokes and collapsed. The teacher rushed the child to the nearby clinic. Zuma was certified dead on arrival by the medical staff.

"The pupils got so angry that teacher's cars were stoned." "The situation had to be calmed by the Durban Metro Police, who kept the teachers' cars at the police station," said the pupil.

¹ Sabinet stands for South African Bibliographic Network, an online collection of databases of South African publications that the UKZN Library subscribes to.

'It was just a mishap; we're very sad to have lost the child under such circumstances.'

Zuma's grandmother, Anastasia Zuma, told reporters at her home that, shocked as they are, they cannot blame the teacher for punishing the child. "The way we hear it, it was just a mishap; we're very sad to have lost the child under such circumstances, but God knows what happened," said the grandmother.

KZN MEC for Education Ina Cronje has ordered an immediate probe into the matter and she said she was shocked by the incident. "This is a terrible. Imagine sending a child to school and then hearing that he has died."

Police spokesperson Captain Joshua Gwala confirmed that the matter is being investigated by the police. "We're waiting for a postmortem report since its not clear what transpired on the day," said Gwala.

Many residents have commended the principal, who took the reins in January, for turning around the school, which many had described as a hive of criminal activity.

Extra information provided initially was that the teacher who hit the boy was the headmaster and the boy who died had been hit on the hand.

5.2. ROLL OUT OF THE LRWR MODULE WITH RESPECT TO THE PROBLEM

Some of the detail of the LRWR module content, instructional and learning methods and assessment, on a week-by-week basis is now presented to indicate how the case study problem approach was implemented.

5.2.1. WEEK ONE OF CLASSES

A pre-test was administered in the first lecture and this lecture took a double period. The students were asked to complete a questionnaire at the beginning of the second lecture to provide the author with background information about the class. This second lecture was longer than the usual 45 minutes. The second lecture was also used to introduce the author's research and the ethical expectations of the University as regards participation by the students. In this lecture the approach to be taken with the teaching and learning of the LRWR module was explained as well as explanation of expectations and the more informal manner in which classes would proceed. The use of discussion and group work to facilitate sharing of ideas as well as debate was explained and some basics of the operation of group work was provided. The module outline was also discussed.

The topic for the module, corporal punishment, was introduced by way of asking the class to indicate, by a show of hands, who had been smacked at school. The class, comprising more than 100 students at that stage were understandably nervous about public admission of this but once some students put up their hands, the whole class participated, especially once the author put up her hand as well, much to the mirth of the class. This acted as a useful ice breaker. The author made a joke of the fact that so many in the class had needed to be smacked, but then moved on to asking the class if they had ever given thought as to whether corporal punishment was acceptable or not. On a more serious note, students were then asked if they knew that legislation existed that abolished corporal punishment at school so most of them had been punished illegally. More than half the class indicated no. The South African Schools Act 84 of 1996 abolished corporal punishment in schools in June of 1997. Most of the class were attending school post 1996. There was a murmur around the class when they realised they had been punished illegally. Students were unable to say what relevant legislation might exist nor where they could find relevant legislation. The class was also asked if they knew that abolishment of smacking in the home was being investigated and did they personally believe smacking of children by parents should be allowed. The class was then told that corporal punishment was to be the theme topic for the module and the different strands of the topic that might be considered.

They were then asked to spend the remaining few minutes of the lecture period discussing in small groups whether they believed corporal punishment was acceptable and why. The author was at pains to point out that in such a diverse class there would be a variety of beliefs and attitudes and that there was no right or wrong answer to these questions and all opinions expressed were to be respected. The purpose of the development of the topic throughout the module would be to enable the class to research and motivate for particular stand points, and particularly from a legal perspective. The author also indicated that she herself was not sure how she felt about these questions and that she would, with the class, be exploring the topic.

The layout of the lecture room was hardly conducive to group work, being slightly horse-shoe shaped with a sloped floor down towards the front of the room where the blackboard and white boards were. Desks and chairs were not fixed and in lots of four in rows. Not all the seating was used up and students generally chose to occupy the front, middle and back sections of the room, latecomers usually sitting at the sides. As many students sit with people they know and in the same place, initially students were asked to turn to the person next to them, and then in front and behind. As students got used to the idea, they were asked to move which generally was no problem, except for one occasion which will be dealt with later. Students were then provided with a single fact sheet that outlined the recent development of the law with respect to corporal punishment in South Africa, including the relevant extract from the South African Schools Act, in terms of just-in-time information to read before the next lecture. Students were also given the first newspaper scenario and a worksheet to complete before the next class. The worksheet basically required the students to follow the FIRAC method of analysis (Ch.2: 2.2.5.) of a problem as well as what they thought about the article, what they did or did not know in terms of information required to deal with the issues that arose from the article.

Students were required to sign up for an orientation of the library which included a brief introduction to basic operations such as Short Loan (which experienced a name change during the course of 2006 to Academic Reserves), registration and then photocopying; location of materials and finding some cases on the shelves. This most students found useful.

5.2.2. WEEK TWO OF CLASSES

At the next class, the newspaper article was read out loud by the author. Students were asked to read what they had written about their initial reactions to the scenario and then turn to the person next to them and discuss it. In the ensuing open class discussion, for many students the statements and questions that came to mind included how terrible the incident was; how was it possible that a smack on the hand could kill a child; that a headmaster should know better; that the headmaster should be fired for such action; and particularly, why the boy was late for school; that this incident coincidentally happened on International Children's day; that the grandmother was so accepting of the death; the view that children need to be

smacked to keep them in line as other methods don't work, and particularly why did the boy die. A few questions pointed to missing information and whether a newspaper report could be believed to be accurate. The author was careful to ask questions that only asked for illustration or how many agreed with a sentiment as a way of building a sense of communal ownership of the problem. Most students could not identify the legal issues and many confused ordinary facts with legally relevant facts.

The notion of unpacking a situation to understand it and the question negotiation that one embarked on with a problem or situation was presented by the author with the use of overhead transparencies. The discussion then moved on to the facets of topic analysis and how a problem is basically analysed from a legal perspective. Most students in the pre-test had identified the FIRAC method of analyzing a problem and reiterated it in class. (FIRAC is the acronym for topic analysis in law that identifies the legal Facts; legal Issues, Rule of law that is relevant, Application of that law to the problem to substantiate the answer and finally to Conclude). This is the basic framework for topic analysis in law. This had been introduced to students in their first year. Constant reference back to the article were made to show the application of FIRAC to the situation at hand.

Students were then asked to imagine that they were a legal practitioner considering the situation, in order to now view the scenario from a particular perspective. The discussion helped to clarify for students such things as the difference between material and non material facts (non material facts equating with the name of the grandmother, or the incident occurring on International Children's Day); that a legal issue is often the problem needing to be solved which is couched in the form of a question and what they did or did not know as regards needed information. Students found it useful to have a live example to illustrate the problem as some remarked they had not really understood the purpose of FIRAC. The discussion enabled many students to understand, for example, why the legal issue was not why the boy was late for school. This particular question was a question that one might want to know the answer to, but rather the question was whether being late for school did not in any way exonerate the headmaster from smacking the boy as legislation exists banning corporal punishment in schools; but rather was the

headmaster responsible for the death of the boy as death at the hands of another constitutes an offence. Students needed the example to help them ‘think like lawyers’. The section of the South African Schools Act was discussed.

This worksheet and discussion also led into input in terms of the narrowness of the FIRAC framework and one way of critically thinking about a problem and covering all bases is to approach the problem in terms of who, what, where, when, how and why. This ‘who, what, where, when, how and why’ approach is not a new framework for approaching problem solving and is advocated by others.² This framework can in fact also apply to literature searching as will be explained later on. The newspaper article was then revisited in terms of a question and answer session with the class as a whole, fleshing out the ‘who, what, where, when, how and why’ and the significance of these questions in terms of understanding the topic. This involved looking more broadly at the context of the incident. Based on these questions the class was asked where and how they would go about looking for information to answer the questions. Again answers were vague and varied between books, law reports and statutes although most did not know why. Some more familiar daily situations were also used – such as losing a cellular telephone and having to buy another one – to apply the topic analysis principles.

5.2.3. INTRODUCTION OF PRACTICAL CLASSES

It is almost impossible to make practical classes about the sources of law coincide precisely with appropriate class work but they were scheduled as closely as possible. The first practical was an overview of the information environment with students being handling a range of information resources from shop adverts to telephone directories, books, newspapers, the Internet and so on. It involved a fairly open discussion about how students searched for information and what sources they used for different situations, the nature of information dissemination and so on. A practical class in the use of the then new iLink OPAC catalogue. Students signed up for any of the multiple slots on offer during the week. Practicals

² P Callister. “Beyond training: law librarianship’s quest for the pedagogy of legal research education”. (2003) 95 (1) *Law Library Journal* 34-36 has promoted this framework.

were the length of a lecture period, 45 minutes, which is insufficient, but the size of the class and complexity of timetables made it impossible to accommodate anything else. The venue was usually the Pietermaritzburg campus Main library's multimedia classroom (occasionally one of the general LANS) which houses 30 computers although classes were never more than 25. The extra places were needed to accommodate the inevitable non functionality of a computer, the odd student who turned up to the wrong class and the occasional student who was slow and wanted to stay on to finish the exercise after another class had started. By the time the students arrived at the practical the computers were already logged onto the Library's website to save time.

Firstly features of the UKZN library's website and its purpose were pointed out and its purpose as a 'one stop information station'. Then the iLink catalogue was dealt with. The author prefers the method of a very brief explanation as to what a catalogue is, some of the features of the UKZN situation, and then took the students through a step-by-step hands-on practical demonstration of the catalogue. One student usually operated the computer attached to the data projector so that the author was free to explain, point out, guide, and move from one side of the room to the other (a few paces) to make sure everyone was at the same place in terms of content and stage in the demonstration. This was followed by a worksheet giving students the opportunity to find the books they needed for the exercise in different ways. Most students were able to complete this exercise during the practical period which meant the author was able to assist with queries. The practical exercise was handed in and marked. Some students opted to take away another exercise for practice purposes.

5.2.4. WEEK THREE OF CLASSES

At the beginning of the third week, the marked worksheets were handed back. Although this delayed the beginning of the lesson, it was interesting how much conversation was generated and how it animated a tired hot class. As the class took place at 3.05 in the afternoon, with temperatures outside often 40 degrees centigrade and inside temperatures above 30, maintaining interest and attention needed whatever boost it could get. Feedback was then provided about the worksheet that led into a teacher in-promptu discussion and questioning on what

exactly did FIRAC mean and how to apply it in this context. About half the class did not accurately identify the issue or couch it in terms of a question and most were vague about what they did or did not know and where they needed to go to find information. Many suggested practical information seeking such as interviewing the headmaster and pupils, speaking to the district surgeon and so forth.

During the discussion the class was then asked to take another colour pen and annotate the worksheet to compare the knowledge they had gained from the class discussion with what they had determined for homework. They could continue the discussion amongst themselves if they wanted. Most students indicated that the unknown information they needed was related to cases and statutes as the authority of primary literature, a principle which had been inculcated in first year, although many chose to indicate more information about the boy's situation was needed. Few suggested starting with a secondary source for more background information.

The author broached the question of how would one go about searching for the needed information and why a particular route would be taken. After responses from a practical point of view in terms post-mortem reports and so on, how to find the law and the nature of relevant law was discussed. The sources of law and the hierarchy in terms of primary and secondary sources as authority were briefly outlined with the help of overhead transparencies. As the newspaper article referred to corporal punishment being banned in schools, and an outline of the development of statutory law had been provided, the nature of statutes was discussed. The repeated references during classes to the Constitution and the legislation banning corporal punishment were referred to in terms of what these pieces of legislation looked like and how they came about. The broad characteristics of a statute were provided. Students were asked to look at a short section of a statute included in their notes and a question and answer session followed so students could unpack the detail about corporal punishment in the statute, particularly noting the nature of the wording. Discussion moved on to where one would go to get information on the big picture of the topic. The role of secondary sources for this was outlined. As part of the scaffolding process as well as learning new knowledge, for homework the students were then given a photocopy of the chapter from the prescribed criminal law textbook called Disciplinary Chastisement for more in-depth information

on the topic. They were also asked to summarise the chapter to develop the ability to read critically with understanding, a piece of work in a totally different format, namely academic text. The chapter introduced a whole range of new information broadening the perspectives on the topic, namely the international picture and how South Africa measured up against other jurisdictions; introduced many foreign and local cases; considered debates at length over corporal punishment in terms of the point at which corporal punishment becomes abuse; child abuse; mistaken belief in the existence of a defense of chastisement in South African law; the rights of parents to smack and clearly presents the author's anti –corporal punishment stance. The summaries were handed in before the weekend and returned to the class marked, at the Monday class.

5.2.5. WEEK FOUR OF CLASSES

Each year, the majority of students paraphrase, and rework the chapter following the exact order presented in the chapter. Some students misinterpret information which indicates that the chapter was probably not properly read or they did not understand the purpose of the chapter's author. Hence the approach of summarising; learning how to summarise and understand academic texts, and then doing the summary again – much to the horror of the students, has been adopted. This chapter, although very detailed with copious references to the literature, more so than many textbooks, was not considered by the author to be particularly difficult. The class complained about the length of the chapter – 11 pages as being too much for them! This is perhaps indicative of the attitude towards independent work outside of the lecture situation. Two class periods were then spent explaining some basics about the different ways in which academic texts were constructed.

The difference between paraphrasing and summarising was explained as were their advantages and disadvantages, with reference to particular sections of the text. It was also illustrated how multiple readings of a text are not necessarily a waste of time. The chapter was then read in class, and students were encouraged to highlight, write in margins and underline or take notes. The author represented the topic and aspects diagrammatically on the chalkboard and annotated the diagram (mind map to some). The session began with a brief overview of the chapter, the importance of the introduction and conclusion and headings. It then moved into a

more in-depth consideration of the different aspects covered, substantiation and international context of the problem; views of others cited versus the author's views and how to recognise those; debates and references to the literature and vocabulary used. The occasional difficult passages were unpacked. Discussion also took place around the flexibility summarising allows and how like ideas can be grouped together, the format of a chapter does not need to be followed. Finally, the author raised questions about the suitability of a book chapter for providing background information, the focus, given the chapter came out of a criminal law book and basic elements of evaluating this source. The class was then asked to write the summary again, taking cognisance of class discussion.

The rewrite has never been a very successful exercise although generally the second attempt is better. Some students have said that it takes too long to read properly or reorganize ideas. Some feel their ability to summarise 'will do'. A small percentage of students indicated they benefited from the re-write. Alternative ways of doing this assignment will need to be considered. An interesting spin off of a later reflection exercise (see chapters six and seven) which did not ask about reading, indicated that what was involved in careful reading of a text had been a revelation to some students.

The difference between information in a statute and information from a secondary source was discussed by way of class questions and answers. Secondary sources as a useful starting point when one knows little about a topic was then described with reference to the textbook chapter. The concept of search strategy was introduced more formally with reference to the scenario now that the distinction between primary and secondary was clear and examples having been examined. Via a question and answer approach, the reasons why so many sources exist and why one uses more than one source of information was introduced, being dealt with later on in terms of evaluating information and sources. Again, reference was then made to the scenario.

5.2.6. WEEK FIVE OF CLASSES

The class commenced with the handing back of the second summary and some comments, including the reading out loud of various students' summaries. The original newspaper article was then revisited. Each student was given a worksheet that asked more questions about the scenario, this time following up on the students' main questions about the boy's death and the role of the headmaster in his death. The questions asked whether they thought the headmaster was guilty of any crime/s and if yes why and should he be punished and if so how. The worksheet also asked students to find definitions for several legal terms that had cropped up during the reading and discussion. This was to move the process into the realm of examining issues more closely but also identifying rules of law and applying them to the scenario at hand with sound reasoning. The students were given a few minutes to jot down their own responses and then the class was asked to form groups of three or four with classmates they did not normally sit with so as to be in a group with someone different and elicit other perspectives. For ten minutes they brainstormed these questions. If students wished to work on their own they could do so, but very few chose to do so. Discussion was highly animated and interaction with the groups indicated a high level of personalised response for a variety of reasons, with the facts forming the basis of the arguments presented. The author and tutor stopped by almost each group and students were eager to try and get confirmation for their ideas or ask a question or point out something interesting from their own experience. Students were asked to make a note on their worksheet of the group's thoughts and ideas. The author was as encouraging as possible and it was apparent that the class had taken ownership of the discussion.

The groups were then asked to tell the whole class what crime they felt the headmaster had committed if any and why. All students cover the basics of criminal law during the first semester of their first year and it was apparent that there was considerable recall as to the spectrum of possible crimes from murder, to culpable homicide to assault, to no crime at all were referred to. The reasoning provided ranged from quite superficial such as 'murder because the boy is dead' to more sophisticated reasoning from a very few such as 'there might be a *novus actus interveniens* or intervening factor which may be responsible for the death, lets wait for the post mortem report'. The class was asked if they could define the crimes and

their elements, which some could do. They were asked where they might find this information. Some said a dictionary, others 'last year's notes'; others the textbook. This indicated that they did in fact have some idea about where to go to find basic information, which hadn't been apparent in the first analysis of the newspaper scenario. It was interesting that no student suggested that the headmaster might have broken the rules of his employment, which took the scenario into the educational law or labour law realm as well.

At this point the author introduced the fact that the post mortem had shown up that the boy suffered an aneurysm which was the cause of death. There was a babble of responses from the class. The students were then asked to think about whether the introduction of this piece of information changed their thinking about the crime the headmaster may have committed and whether he should be punished and add it to the worksheet so they would have three types of responses to consider, pre and post discussion and the benefit of group work. The students were also asked to find definitions of murder, culpable homicide and assault from any sources they wished. The exercise was to be handed in the next day.

The following day's class saw a formal lecture by the criminal law lecturer who was now familiar to the class (on Tuesdays the criminal law lecture preceded LRWR), on the basic definitions of and elements of the crimes of murder, culpable homicide and assault. The purpose was to ensure all students received the same overview. The lecture was pitched to ensure those who were not studying criminal law received a nutshell version of needed information sufficient for the purpose of the exercise. It also served to introduce another source of information. This lecturer made reference to the newspaper scenario raising for and against arguments based on the facts at hand, for the possible crimes, so as to leave the students to make up their own minds and appreciate the notion of considering all sides to an argument as well as how to apply the law and legal principles to the facts at hand. Students were asked to take notes that they could use to refer to later on. For homework the class was given a focused assignment to bring all knowledge gained and constructed together, although very scaffolded:

Imagine the school board of Phezulu High School has asked you, an attorney, to inform them about the possible charges the headmaster could face as a result of administering corporal punishment to Thuthukani Zuma. Write a formal report in which you provide the necessary information. You may include any defenses and provide an opinion, based on the facts and law, as to which is the most likely charge.

This is a writing exercise to provide practice with:

- Summarising the relevant principles of law and relevant legislation
- Expressing your understanding of the relevant law and your ability to express in succinctly and logically
- Laying out this information as a formal report remembering that your audience are not lawyers
- Setting out a piece of work that shows a basic format of an introduction, main body and conclusion

The class was asked to consult the criminal textbook to do further reading about the elements of the crimes and defenses.

5.2.7. WEEK SIX OF CLASSES

By way of review, the author provided the class with several short newspaper articles completely unrelated to the topic at hand to apply the knowledge and skills learned to date about topic analysis. The students could work in pairs or small groups. Each article was read out loud first by the author. After the group discussion, a class discussion about each article ensued which was lively and the author was able to prompt for direction or clarity at those times where there was a range of ideas or uncertainty.

The sources of law were again referred to. By way of context the author briefly revisited the process to date and what the class had learnt about unpacking the problem and the use of lecture material, a newspaper scenario, a book chapter and discussion as sources of information. Questions were posed to the class as to why these sources were used. Reference was made to the fact that many answers to the FIRAC exercise on the newspaper scenario had indicated cases and statutes needed to be found but the class had not to date consulted any, and why not.

Differences between primary and secondary sources and the importance of primary sources in the study of law was revisited. A series of overhead transparencies was used to provide definitions and illustrations of examples as well as lists of sources

so students could categorise them according to primary or secondary. The key categories of secondary sources were described and explained in general terms, and particular reference was made to those 'unique' to law such as the South African Law Commission Reports. The nature of reference books was highlighted. The chapter from the textbook was examined more closely from the point of view of what and how it presented useful information and what characterised a secondary source as well as why a secondary source such as a book was often a good starting point for finding information. Although not focusing specifically on footnotes, the reference to other literature within the chapter text was noted as well as and why it was necessary to acknowledge specifically where information came from. The role of the parts of a book, title page, preface and introduction (important in terms of the author indicating the date at which the law was quoted; audience and so on), contents and index was explained.

Practical exercises in small groups in separate sessions took place in the library, to introduce students to the legal encyclopedia Law of South Africa (LAWSA). The session involved giving each student a volume to look at after an initial overview of the features of the encyclopedia as a whole and then in pairs students undertook a worksheet based on their volume to find particular information and use the various parts of the volume.

Feedback and discussion on the written report concerning the headmaster and possible charges against him was discussed. On the whole students had managed to set out the assignment in a structured logical way although introductions and conclusions were weak for about 50% of the class. Discussion focused largely on the application of the law to the facts at hand and substantiation of argument.

5.2.8. WEEK SEVEN OF CLASSES

A guest lecturer provided an overview of what a legal opinion is, how it is to be approached and constructed and 'do's and don'ts'. Some discussion ensued as some students were not quite sure how to reconcile the idea of an opinion with the concomitant objectivity of such a piece of work. The opinion took the writing, reasoning and reading process another step further. The students were asked to imagine that the headmaster had been charged with assault and the Director of

Public Prosecutions was asking them to provide an opinion as to whether a conviction would be successful. The guest lecturer attempted to divide the class in half and insist half write an opinion, for and the other half, against the conviction. The class was not happy with this and opted to have the freedom to decide for themselves based on what they read. Students were offered the opportunity to hand in a draft of the opinion.

Law reports were introduced with brief input on the structure and citing of the South African Law Reports pre and post 1947 was provided. Students were then given a worksheet with questions asking them to construct case citations from given information and identify law report series from their acronyms. Students could work alone or help each other. Students were then given a case that dealt with an instance of corporal punishment that was actually assault. This case had taken place prior to the banning of corporal punishment in schools, and was used as there are no relevant recent reported cases. This meant that students had to read the case carefully and take cognisance of conditions at the time of the case and compare them with the conditions of the scenario. The parts of a case for reading purposes were reviewed. This had been covered in first year and support tutorials on reading cases were offered as a pilot during the semester independently of the module by the academic support coordinator. The students had to read the case for homework and the reading was accompanied by a worksheet designed such that students understood the construction of the case as well as the content.

Students were asked to review the notes on law reports in their notes as well as law report series abbreviations for the next class.

5.2.9. WEEK EIGHT OF CLASSES

Most of the class had an essay to do for criminal law, so sometime was spent undertaking a topic analysis and applying what had been learnt so far to understanding the requirements, both in terms of content and instructions, of an academic piece of work. They were then given a worksheet reflecting a column of citations to cases with occasional journal citations in-between, in order for students to realise the importance of learning some basic acronyms and abbreviations, some

mnemonics associated with law report series names and recognising South African series.

The case which the class had to read and accompanying worksheet was read and discussed and students could annotate their worksheet for future reference. The discussion included how this case could be applied to the facts of the scenario and how to express this application verbally and in writing.

Over the Easter vacation the class was asked to do a reflection exercise (see Chapters 6 and 7) for the analysis of this exercise.

5.2.10. WEEK NINE OF CLASSES

The class commenced with an overview of the first term's work. The printed indexes to the law reports were introduced and a worksheet on how to decide which parts of the indexes to use (there are six parts) in particular situations. The set of notes included photocopied pages from the indexes which were used in the explanation and for purposes of the exercise. Students have always found these indexes difficult to comprehend and use and the best way of dealing with this has not yet been found!

Practicals took place over a number of weeks in the law library as well as in the multimedia classroom on how to use and find cases and their indexes. All practicals involved brief explanation whilst students handled actual law reports and indexes or followed through the steps on the South African databases, followed by worksheets.

Continuing with secondary sources, unbound issues of journals were brought into the class and students examined the issues in response to the author pointing out the features of a journal. Further more formal input was made, followed by the referencing of an article from within the journal issue. Some discussion of law's habit of abbreviating titles and recognizing acronyms and abbreviations took place.

5.2.11. WEEK TEN OF CLASSES

Diagrammatically, the author illustrated the principles of indexing, both for an individual publication but also for multiple publications, with particular reference to

journals. The author used everyday examples to illustrate the advantages of indexes, such as visiting a shopping mall which brings a range of shops together, rather than going to individual shops in different locations, and drawing on the board. The difference between electronic and print indexes was outlined, again using everyday examples to illustrate. The students were given a copy of a journal article that provided an historical account of the changing nature of, and attitudes towards corporal punishment in Western countries in particular and then focused on South Africa.³ It considered the racial and colonial context of corporal punishment; corporal punishment as a form of humiliation of and subjugation of black peoples at the hands of white colonial masters; the violent nature of South African society and how this has fed into the development of current constitutional principles and human rights culture. The students were asked to summarise it and compare it to the chapter given to them earlier in terms of content and focus.

The first practical exercise relating to journals was to get the students to actually go to the journals room in the Law library and find a journal in the alphabetical sequence according to a worksheet. At least one third of the class failed to read the alphabetical arrangement correctly; select a journal with a similar but not exact title as stipulated in the worksheet or do not realise that a particular journal may take up multiple shelves. The concept of journal literature is surprisingly difficult for students despite most of them being magazine readers, although the magazine arrangement in supermarkets does not reflect bound back-runs in dull covers. Once each student had found their specified journal they needed to find an article from incomplete details and then specific information within the article and finally reference the located article and return the journal to its correct place. The articles to be located all covered the topic corporal punishment. The tutor and author or other staff were available to assist students

Several other practicals over a number of weeks then followed to do with journal literature and indexes, namely databases. Five database collections were covered – the South African collection Sabinet; Westlaw; LexisNexis and Ebscohost and Wilsonweb. In each instance the practical session began with a brief overview of the

³ S Pete. “To smack or not to smack: Should the law prohibit South African parents from imposing corporal punishment on their children?” (1998) 14(3) *South African Journal on Human Rights* 430-460.

database and where it fitted into the bigger picture of legal information; a step by step search with the students; followed by a worksheet. Sabinet was the first database to be encountered. The basics of Boolean logic and using truncation and using synonyms were introduced as well as structuring a search with examples. This was difficult in the single practical period and students struggled to 'reformat' their thinking from typing in the topic to thinking about the keywords and concepts that underlie a topic and then using Boolean logic to link a topic. These practical exercises showed the link between topic analysis, search strategy and actual searching.

5.2.12. WEEK ELEVEN OF CLASSES

By way of scaffolding understanding of footnoting and referencing more formally, the reasons for referencing were briefly reviewed. The students were then given a worksheet concerning footnoting which focused on the original topic chapter given to them. The worksheet was designed to alert students to the features of footnoting. Questions on the worksheet covered general features of footnoting; identification of kinds of sources within footnotes; format of referencing in footnotes; use of acronyms; case names always being in italics and so on. Half way through the class the first few questions were discussed with the class to ensure everyone was on the right track and the answers were used to reinforce notions about referencing that had regularly been referred to in classes. The exercise was to be completed in the students own time.

In the next class a simple passage of text half a page long was given to each student. The author had reworked the passage and included the details of the four book and case sources of information within the text. As a class exercise the passage was read aloud to highlight the clumsiness of putting full details in the text. The actual process of creating a footnote was undertaken with reference to the format outlined in the notes. The creation of each footnote was done as a question and answer format with the students and they wrote down each footnote as well as annotated the passage so as to be clear about where the in-text footnote number went. The students then did the rest on their own and they could collaborate. How to reference for a 'list of works cited' and the reasons for such a list, and differences between such a list and footnoting were explained and then for the same exercise,

in the same manner, a list of works cited was constructed from the references for the passage.

The students were then given a full page passage of text from the criminal law text book which had been retyped to include all the references in the text. The passage contained references to a book; journal article, chapter in a book, case and statute and government gazette. They were asked to rewrite the passage, taking the references to sources out; and provide footnotes and a list of works cited. The students had a week in which to complete the exercise and hand it in.

Opinions were handed in at the end of this week.

5.2.13. WEEK TWELVE OF CLASSES

The first class dealt with evaluation of sources of information and information itself. The author reminded the class of the numerous references to certain factors to take into consideration when using sources that had already arisen, such as relevance, detail, authorship, jurisdiction and so on. The criteria were highlighted and then a scenario was outlined along with ten fictitious sources of information in order for the students to decide what information the sources provided; what evaluation criteria were relevant; the context of the information and the possible outcomes of using information from the different sources in different combinations.

The first scenario was wrapped up by means of a sentencing argument. Students seem to enjoy this assignment. A guest lecturer presented the bare bones of the theory of punishment and sentencing and the 'triad of Zinn' – an approach laid down by the courts when considering sentencing. *Zinn* is a South African case in which the court outlined three main factors to be considered when sentencing. She also looked at aggravating and mitigating factors. Part of the reason for getting the class to do a sentencing argument is that sentencing does involve a more holistic and 'human' approach by the courts; a change from the more formalistic and strictly law –substantiated exercises done to date. The students still needed to substantiate their argument. This class ran late as the students then spent some time in groups or pairs, deciding how the triad could be applied to the scenario. The class was asked to imagine that the headmaster had been found guilty of assault. The class was asked to write a one/two page sentencing argument.

5.2.14. WEEK THIRTEEN OF CLASSES

The focus then moved to the next phase of the topic. The students were provided with a follow up article on the same topic but from a different perspective. The article, given below, was an editorial, by an African South African, in the *Sowetan*, an English newspaper, catering predominantly for African English speaking people. The editorial provided a very personal viewpoint and raised questions in a 'them vs us' challenging manner in terms of the individual and society at large with respect to laws and lawmaking.

The article was taken from the database SA Media, one of the Sabinet collection. It was published in the *Sowetan Sunday World* newspaper; 12 August 2001, page 19. Topic: 10; Ref. no: 7645, ID: 02745770-01. The article has been retyped here exactly as it appeared with minor alterations in terms of paragraphing, to make it fit. The article was read out loud to the class and then the class was given a few minutes to absorb what had been heard and to think about it. There is no space within this thesis to closely unpack the content of this article but the author then asked some leading rhetorical questions and asked the class to discuss in small groups what issues this article raised. The class was also asked to bear in mind the journal article they had been given in a previous class that dealt with the history of corporal punishment in South Africa.

My World by Charles Mogale

"A tragic tale is unfolding in Tembisa that has raised the angst of the proponents of corporal punishment and embarrassed those of us who think it is not such a bad idea.

In case you missed it, 14 year old Tebogo Motaung has all but lost the use of one of his hands after being punished by a teacher at his school. The matter is now before the courts.

Years back, in a more tragic incident involving corporal punishment, a teacher in the then Bophuthatswana thrashed a pupil who eventually died. The teacher was so traumatized by the incident that he quit teaching and became a *mzalwane* (born again).

Let us get one thing straight: children must never ever, under any circumstances, be assaulted.

But mistakes happen. The loving administration of a couple of lashes could get out of hand.

The new anti-corporal punishment dispensation suggests that teachers can always talk and counsel wayward behaviour out of their charges.

I still can't imagine how one sweet talks a boy out of bringing dagga into school or continually refusing to do homework. Sometimes I wonder if the people who make these laws have the foggiest idea about the communities we live in. Or, like the death penalty, is it a matter of "them" deciding what is good for "us"?

Have they established if most parents do not want their children punished despite some of the horrendous things kids get up to?

At times a klap is all that our kids need⁴

If my son swears in public and the man down the street gives him the works, I would most probably invite him over for a drink.

Unless my neighbour kicks, head-butts or punches him, I do not consider a little discipline an assault.

I give my children's teachers the permission the government refuses them- to use their discretion in deciding whether the stick is needed.

Let me share what I believe is the general feeling about corporal punishment in the townships. My old mate and homeboy, Bra Hlalele Ralegodi of Evaton, regards it as a remedy for crime. He believes that locking people up in prison for years, even for life, is a waste of time. Every prisoner doing time, he feels, should be given lashes every few years during imprisonment. "That will solve the problem. No one will want to return to prison" he says with a smirk. Someone told the story on the radio last week of a teacher in England who was assaulted by a pupil. He sent the errant child to the headmaster and was shocked when the boy returned with a container of fruit juice, given to him as a gift by the headmaster. *That*, the teacher was told, was the way to deal with problem children.

Those who make our laws are probably from that sort of background.

Having said all that, mistakes do happen and one can't ignore them.

Jackie Selebi, the police commissioner, can attest to that. The other day his wife walked out of a shop with a bracelet she had not paid for. It was all a mistake, and I am not being facetious in saying so.

I should know. I absentmindedly walked out of a shop in City Deep some time ago clutching a spice bottle I had not paid for.

The shop owner came charging after me and grabbed it out of my hand.

I followed him back, pleading with him to believe it had been a sincere mistake. The look on his face clearly indicated I should just voetsak."

Without prejudging the Tebogo Motaung issue, the tragic affair should not prompt those who are trying to impose English solutions on African problems to say "We told you so.

The discussion around this article took place at two levels. The whole class discussion centred around law making, in particular, the fact that lawmaking is

⁴ The word klap means a smack

situated within a particular socio-economic-political context ; the individual versus the state; what happens when individuals do not agree with laws, and considerations that surround controversial legislation. On the other level, the class was asked to move around and pair up, or in small groups, join with others of another culture and discuss their own personal feelings about this article and their own attitudes to corporal punishment. The racial, social and cultural overtones of the article clearly made the class uncomfortable and many of the class were unhappy to do this. Students were thus given the choice about whom they paired up with. This was the first time the class appeared to fragment so noticeably. The author visited each group and most were quite vocal and discussions were fascinating. The author made a point of being interested in discussions and asking for clarity and was exposed to a wide range of opinions and actions. In the ensuing class discussion, women were most vocal in their support of corporal punishment and had least difficulty expressing opinions. Although the class had problems with the points of view expressed in the editorial, most were in favour of parents smacking their children but divided about corporal punishment at school. The class was then given a worksheet based on the article to complete in their own time so as to have time to work through the article and respond according to personal beliefs without feeling exposed in the group situation. Many questions asked whether they agreed with the sentiments expressed or what their personal opinions were.

In the second class, a guest lecturer presented the development of a culture of human rights internationally as a background to issues such as corporal punishment as well as why a human rights culture was being developed in South Africa and the influence of the Constitution in law making. She also touched on the broader context in which laws are made. The purpose was to present another perspective to the students and help put the editorial in context as well as provide further support for the final assignment. This lecturer was to take the class for the Human Rights course in the second semester. The class had half the period to engage with the lecturer. The remarkable response in the form of discussion could best be described as aggressive with students highly animated trying to defend strong personal views in the face of the broader socio-legal-political context without being able to necessarily defend their views. It served to illustrate the tensions between personal

views and in legal practice having to take particular standpoints or providing objective opinion.

5.2.15. WEEK FOURTEEN OF CLASSES

This week involved reviewing the module as well as a written test. Questions were asked by the author during the review and students were able to ask about it so as to iron out difficulties or pinpoint areas that had been difficult. The test was in fact the post-test. Students had difficulty understanding how they could write a test when the class had been so interactive. The module was overviewed and students informed that the purpose of the test was to see if students could explain the broader principles and concepts of the module and some more precise information about sources of law they had studied. The opinions were handed back and discussed. There was great variety in quality of opinions, the weakest areas being referencing and applying the law critically. Some students blamed a crammed assignment timetable for doing a 'rushed job'. The opinions were marked in terms of layout and format including grammar, spell check; referencing and then content, argument and application of the law.

The final assignment, the essay titled "Should South African parents be allowed to smack their children" was discussed in terms of all that had been covered and a reminder of the requirements of the assignment. Students had the freedom to respond in any way they chose as long as argument was substantiated. Students were required to find and use a range of sources and also detail their search strategy. Proper referencing had to be done.

5.3. PRACTICAL CLASSES

Practicals took place in both the law library and in the multimedia classroom. There were 11 in total, sometimes two in one week. The practicals in the law library included an orientation and finding a cases in the printed law reports; the printed encyclopedia LAWSA – Law of South Africa; the printed statutes; the printed law reports and their indexes; finding journals. The multimedia classroom practicals included an introduction to the broader information environment, electronic resources included the Library's catalogue and website; four databases covering

journal literature and the two South African legal publishers database collections and Internet searching and evaluation.

5.4. ASSIGNMENTS

Assignments were varied. Some comprised worksheets. These related to the scenarios and sources of law and activities such as referencing. These were aimed at giving students exercises to reinforce class input; the opportunity to think through and do and write activities but also as part of scaffolding and providing the students with a permanent copy of work for reflection as well as building on a topic. The four larger assignments, namely the Phezulu School Board letter; opinion; sentencing argument and final essay provided students with a series of detailed assignments to be presented in particular formats with different presentation requirements, but also reflecting different kinds of input as regards the use and evaluation of sources and information and reading. Other assignments included the summarising exercise and practical exercises relating to the sources of law. The purpose of the formal written test which was the post-test, was to ascertain whether students had grasped the basics of the module in terms of concepts and understandings as well as some detail about sources. There was also a small e-resources test which asked students to find a case and statute; book in the library and a journal article.

With regard to reading and writing, summarising exercises were assessed and writing competency formed part of the continuous assessment of the various written exercises handed in for assessment. A written test was included to give students the opportunity to consolidate the background knowledge and principles behind aspects of the course. In terms of referencing, students completed practical exercises on citation, and referencing also formed part of the final assignment. The final assignments, an opinion and an essay, brought together all aspects of the process and knowledge in a legal practitioner-style assignment whose nature dictated a particular approach; and the essay provided the opportunity to take any approach and perspective the student felt inclined to pursue. Except for the test and larger assignments, the turnaround time for assessed work was one week, so that useful discussion and feedback could take place in the class. Various worksheets were given to students to complete or start during a class and all work was then put together in a portfolio.

In terms of the problem topic, the students began by studying the newspaper article and completing a worksheet individually. These worksheets were marked by the author and a grade applied as well as comment. This worksheet was then discussed in class, thus providing feedback in the form of discussion and providing the students with the opportunity to themselves view their own performance against the backdrop of teacher and peer knowledge. Fink.⁵ indicates that forward-looking assessment in the form of tests, problems, questions or assignments should be created to be realistic in terms of how the learners' knowledge would be tested in the real world; require the wise use of knowledge and skills; require the student to 'do' the subject; be situated within a particular context; assess the learners' use and application of knowledge and skills and present opportunities for students to practice, refine redo and consult resources.

In terms of these requirements, the newspaper articles and the topic reflected real life situations, required the students to be actively involved in doing a task from a legal perspective and apply themselves behaviourally and cognitively and use judgment in terms of applying the law to the facts at hand. In terms of practice, redo and refine, the knowledge and skills learned and built upon were applied in a variety of ways. For example, following on from this worksheet, the possible crimes the headmaster might be charged with were investigated in terms of personal opinions and the law. Then students had to use resources for additional information in order for them to progress to writing a letter of advice to the school board about the possible charges that the headmaster might face and which was the most likely charge and why. This assignment thus built on the first one in terms of basic knowledge of the process, content knowledge, skills of arguing and supporting evidence and applying the law. This phase required students to present in writing in a fairly structured way, so now included reading and writing skills. Although at a higher level of complexity, it built largely on the knowledge and skills of finding the law and applying it to particular facts in a fairly simplistic way. Again, this piece of work was assessed by the author and then discussed in class.

⁵ LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses.* (2003) 85-89.

The first of the two large assignments, the opinion, drew the processes and knowledge together in the form of an opinion. The final major assignment was that of an essay in which the students answered the question of whether South African parents should be allowed to smack their children – this had not yet been decided in the law. Students were allowed to do anything they wanted with the topic and think and research more broadly than the fairly restricted parameters of the law that had been considered up until that point, but still provide a sound argument. The exercises relating to the practicals usually followed on from input or demonstration and handling of sources.

5.5. SUMMARY

This chapter served to provide an overview of how the LRWR module played out in reality. It indicates the range of teaching and learning activities and the interrelationship between them as well as with assessment that were adopted for the module. Two newspaper articles and a final assignment provided the basis for problem-solving around a particular topic, from a number of perspectives. They provided the focal point from which students needed to explore, discover and apply information from many sources including group activities, and build and substantiate answers to various legal issues. The topic, corporal punishment, is an emotive one, and was not finally settled in the South African law at the time of the 2006 module. This situation enabled the students to examine and substantiate their own personal ideas and feelings against the backdrop of the law.

The following chapter presents the data collected via various instruments and methods, that helped inform the development of the module as well as the author's broader understanding of the nature of research into a case study.

CHAPTER SIX

DATA PRESENTATION

This chapter presents the data collected via the instruments used, and analysis thereof. A range of data gathering instruments was used as collection of certain kinds of data requires use of particular instruments. Data required was determined by the research questions within the context of the case study. The instruments used were a survey of law faculty websites; a questionnaire to law schools, the LRWR class completed a questionnaire, learning styles inventory, reflection exercise and pre- and post-test. Classes were observed and focus groups completed the data collection methods. Some data was recorded and analysed on computer using the statistical package SPSS. Response sheets where appropriate, had to be checked for errors and incompleteness first before data could be collated and input Other data was manually recorded and collated. Analytical tests performed included working with descriptive and frequency tables, cross-tabulations, paired samples T-tests. Other data was recorded manually and analysed in various ways.

6.1. RATIONALE FOR USE OF DATA COLLECTION INSTRUMENTS

A survey of law faculty websites to ascertain provision and nature of legal research modules was undertaken in the early stages of the study and they were revisited from time to time to ascertain updates. A questionnaire was sent to law faculties at a later date in order to elicit information not available from websites. No responses were received. Appropriate information was however gleaned from a later source, a workshop (see below). A learning styles inventory provided information about the range of and nature of the students' learning styles. The questionnaire, pre-test and learning styles inventory provided data about the characteristics of students for the planning of the module, and teaching, learning and scaffolding activities. The pre- and post-test also indicated the influence of the module intervention on the students' knowledge and skills of legal research. A reflection exercise half way through the module indicated the impact of the process and content thus far on students' knowledge and skills. Focus groups held at the end of the module were used to

discuss the students' opinions about the active learning approach taken in the module. Informal observation indicated how students were able to work in groups and respond to discussion. Some data was recorded and analysed on computer using the statistical package SPSS. Analytical tests performed included working with descriptive and frequency tables, cross-tabulations, paired samples T-tests. Other data was recorded manually and analysed in various ways.

6.2. SURVEY OF LAW SCHOOLS (see Appendix two)

6.2.1. INTRODUCTION

Since the merger that resulted in the current University of KwaZulu-Natal, three law faculties have been amalgamated into one with two schools located on the Pietermaritzburg and Durban (Howard College) campuses. While the core curriculum has been determined, there is still not complete alignment of modules in terms of their content, approach and assessment methods. This lack of alignment is particularly so with the Legal Research Writing and Reasoning module. Thus there was room to experiment with the LRWR module in terms of its content, processes and teaching and learning activities in order to help inform a standardised approach to the module for both campuses. It was important though to assess what was being developed at other universities around the country. The author determined that a survey of law faculty websites might be sufficient to establish what the national situation was. These websites were revisited two times since the initial survey in May of 2005. The websites indicated that most law faculties were adhering to the SAQA requirements in terms of outcomes for legal education by offering a range of skills bases modules or module components (CH.2: 2.2.7.). It did however become clear that websites did not provide information about the exact content of a module like LRWR, teaching and learning activities, format or assessment.

A questionnaire was then drawn up to send to law schools by e-mail in order to elicit this information. For reasons beyond the author's control, this questionnaire was only circulated in 2008. The questionnaire was piloted with two members of the Pietermaritzburg academic Law Faculty staff. No replies to the questionnaire were received. The author had telephoned law faculties in the first two weeks of June 2008 to establish who the correct contact persons were and in some instances it was

possible to speak to such persons and provide information about the survey and ask for their assistance. The questionnaire was e-mailed to the 17 law faculties during the first week of August 2008. A reminder and another copy of the questionnaire was e-mailed on 17 September 2008. The author received no replies. Further information about the nature of legal research activities in law faculties was elicited at a workshop the author attended at the end of July 2008. This is reported on in Chapter seven.

6.2.2. SURVEY OF WEBSITES

There appeared to be a range of terminology used to describe the skills modules offered with eight websites referring to the modules as legal skills modules. For senior years the terms legal practice or practice of law were sometimes used or else activities were specifically named. It was not always clear what was included in these modules.

Of the sites for the 17 law faculties that provided details:

- 14 offered discrete skills modules
- 12 provided their skills modules in first year
- six law schools provided training either in a year other than first year or in more than one year
- UKZN Law Faculty appeared to be the only one offering the discrete legal skills module in second year
- three websites indicated assessment methods
- most websites indicated the skills modules were credit bearing.

There was some overlap in terms of the skills included in the curriculum. Table one below indicates the range of named activities taught in discrete skills modules.

Table 1: Activities included in skills modules

Activities included in skills modules	Number of law faculties which taught this activity
Writing	11
Research	10
Reading	8
Computer literacy	8
Problem-solving/critical thinking/analysis	7
Numeracy	5
Academic English	5
Learning	3
Oral advocacy	2

The above table reflects only available information. Three websites provided no details. Those websites that used global terms may well include these individual skills. It appeared as though these skills were taught as separate activities but without further information this cannot be verified.

6.2.3. SUMMARY

From the limited information available as a result of the survey of websites it appears that all South African law faculties consciously include a range of practical skills including legal research, writing and reasoning in the undergraduate law degree. Different terminology has been used to describe these modules. Most of these skills modules are offered in the first year of study and are compulsory and credit bearing. If skills modules are taught predominantly in the first year, classes will be large, on average comprising 300 – 400 students, so the lecture method is likely to dominate.

Only two websites indicated specific teaching methods namely lectures and tutorials. UKZN is unusual in that its discrete skills module is offered in the second year of study.

The next chapter, Chapter seven, provides an interpretation of the findings presented in this current chapter, in the context of the research questions as well as more up to date information received from a workshop attended by law faculty representatives and this author which provided insight into the status quo of legal research in South African law faculties.

6.3. QUESTIONNAIRE SEEKING BACKGROUND INFORMATION ABOUT THE LRWR CLASS (see Appendix three)

6.3.1. PURPOSE OF THE QUESTIONNAIRE

Questionnaires are a useful instrument for gathering information from a large number of subjects, about practices in particular, and attitudes.¹ Gillham² indicates that there are two fundamental kinds of questions in a questionnaire – those that *describe* the respondents in terms of their status with respect to a whole range of factors, and those questions that provide information about the topics under investigation, the substance of the questionnaire. A questionnaire needs to be seen as one method of obtaining information in a qualitative study as answers are provided only via asking questions with no direct interaction or immediate possibility for follow up and the researcher has only the answers to work with.³ The advantages and disadvantages of using questionnaires have been fully covered in Chapter three (3.9.1). The starting point in deciding whether to use the questionnaire instrument is to ask what it is one is trying to find out and then weigh up the pros and cons of using this particular instrument.⁴

The purpose of the questionnaire to the LRWR class was to ascertain some background information about the class – the description questions; along with questions with respect to practices and knowledge around topics and skills to be covered in the module and to a lesser extent, attitudes associated with such. Thus most questions (23 out of 29) were of the closed variety that served to show ‘frequency’ and ‘degree’ of responses⁵ and comparisons across a group.⁶ The questionnaire information was sought for a number of reasons. It helped the process of understanding and ‘knowing’ the class. The questionnaire responses also helped

¹ ES Grassian and JR Kaplowitz. *Information literacy instruction: theory and practice*. (2001) 282; B Gillham. *Developing a questionnaire*. (2000) 2, 5; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) ch.14.

² B Gillham. *Developing a questionnaire*. (2000) 49-50.

³ B Gillham. *Developing a questionnaire*. (2000) 1-4; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 246; UKZN. School of Education, Training and Development. *Understanding research: an introduction to reading research*. 2nd ed. (2004) 85.

⁴ B Gillham. *Developing a questionnaire*. (2000) 15; UKZN. School of Education, Training and Development. *Understanding research: an introduction to reading research*. 2nd ed. (2004) 85.

⁵ B Gillham. *Developing a questionnaire*. (2000) 7; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 247.

⁶ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 247.

confirm aspects of the instructional design in terms of content, teaching methods and assessment and later development of the module. The questionnaires were anonymous and comprised open and closed questions

6.3.2. ADMINISTRATION OF THE QUESTIONNAIRE

The questionnaire was administered during the second meeting with the class. In order to inform the development of a module a questionnaire really needs to be administered prior to the planning stage of the module. This however was impractical as the class would have had to have been approached at the end of the preceding year and it would not have been known at that stage who in the class was going to proceed to second year. Class attendance in any module is erratic. The author's development of the module was based on experiences, test and questionnaire results from previous classes. At the time the questionnaire was administered, the module was in an advanced stage of planning. There was sufficient flexibility in the module's design and preparation to accommodate information sourced from the questionnaire responses. The questionnaire responses were also one way of affirming the author's rationale for including certain content and taking particular approaches with the module and suggesting possible emphasis in some areas of skills and knowledge. Questions were largely of the closed and structured variety which 'prescribe the range of answers from which the respondent may choose'⁷ The closed questions included an 'other (please specify)' option to accommodate possible responses that had not been considered by the given answer options.

The advantage of structured questions is that they 'generate frequencies of responses amenable to statistical treatment and analysis...and enable comparisons across groups in the sample'⁸ and do not require the respondents to be articulate. They may be quicker for respondents to fill in, depending on wording and range of options. Possible shortcomings are failure on the researcher's part to interpret responses and respondents not reading instructions properly. Respondents may also think only in terms of the responses provided and thus not offer anything that may not

⁷ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 5th ed. (2003) 248.

⁸ WL Neuman. *Social research methods: qualitative and quantitative approaches*. 5th ed. (2003) 247; B Gillham. *Developing a questionnaire*. (2000) 7; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 247.

have been accounted for.⁹ Some questions were open-ended as it was impossible to supply a finite list of possible answers. Such questions required responses to be coded before being able to be subject to statistical analysis. The 31 questions within the questionnaire covered respondents' demographic characteristics; reasons for studying law; use of information resources and the library; reading habits and approaches to working that were relevant to the nature of the module. The purpose of the questionnaire and its inclusion in the author's research was explained to the class before it was administered. Responses were treated anonymously.

One hundred and ten (110) students completed the questionnaire, 83% of the final enrolment for the module. The final number of students registered full-time for the module was in the region of one hundred and thirty two (132). Not all students who completed the questionnaire were necessarily registered for the LRWR module but were attending in anticipation of completing registration requirements. The part-time class was run along similar lines but sufficiently different not to be included in the experimental programme. The reason for the full class not completing the questionnaire was probably due to the UKZN University staff strike at the time (February 2006) and the consequent disruption to registration and lectures. Generally, student numbers constantly change up until examination time because of late registrations, timetable clashes, outstanding fees and other factors. In terms of reflecting the questionnaire responses below, 'students registered' refers to those who were attending the module at the time, both fully registered and awaiting registration.

6.3.3. PRESENTATION OF QUESTIONNAIRE DATA

The presentation of data is preceded by the processing of the data.¹⁰ Once the questionnaires had been collected back from respondents they were edited to identify errors, completeness of responses and accuracy of responses as far as was possible.¹¹ One respondent who completed the questionnaire for example, marked

⁹ B Gillham. *Developing a questionnaire*. (2000) 8-13; WL Neuman. *Social research methods: qualitative and quantitative approaches*. 5th ed. (2003) 249; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 248 -250.

¹⁰ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 265; B Gillham. *Developing a questionnaire*. (2000) 49; A Holliday. *Doing and writing qualitative research*. (2002) 98-99.

¹¹ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 265-266.

every answer option in every question so was eliminated from the survey. Errors, issues of accuracy and completeness affect the coding of the data which is the next step. Information needs to be reduced to data that can be codifiable in order to be processed. Closed questions tend to lend themselves to precoding as answer options are determined prior to the administration of the questionnaire. Open ended questions are usually coded after the responses become available as only then are the nature and range of responses known.¹² Responses are analysed and coded using thematic or conceptual content analysis.¹³ Where a large quantity of data results, the data can be input into any of a range of computer programmes. In this instance, the SPSS (version 13) package was used. Such programmes process the data and provide options for analysis.

Before analysis is undertaken, the data input must be thoroughly checked for possible errors.

6.3.3.1. Demographic data about the students registered for the LRWR module

Demographic data covered information on degrees registered for; academic year of study; and gender and racial composition of students registered for the module. The basic demographic data indicated that there was considerable diversity within the module population in terms of degree and race and the class was fairly evenly divided along gender lines. This has possible implications for class dynamics.

¹² L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 265.

¹³ E Babbie and J Mouton. *The practice of social research*. (2001) 492-495.

6.3.3.1.1. Degrees students registered for

Table 2: Degrees students were registered for at the outset of the module and at the end of the module.

Registration at the outset of the module	LLB 55 50%	BA 21 19.1%	B Soc Sci 25 22.7%	B Comm 9 8.2%	Total number of respondents 110
Final Registration at the end of the module	LLB 61 46.2%	BA 29 21.9%	B Soc Sci 33 25%	B Comm 9 6.8%	Total number of students in the module 132

The data relating to which degrees students had been registered for is presented in the table as percentages of the total number of students registered for the module and actual numbers of students. At the outset of the module, the questionnaire data indicated that half of the class, 55 students, were registered for, or intending to register for, the LLB degree. The number of students registered for the BA degree was 21, or 19.15% of the class; 25 were B Social Science students comprising 22.7% of the class; Arts and Social Students together, 46, making up 41.8% of the initial attendance in the module. Commerce students, 9 (8.2%), formed the minority of registered students. Students not registered for the LLB and attending the LRWR module would have been doing so because they intended majoring in Legal Studies and LRWR is a compulsory module for Legal Studies majors. Some students choose to move on from an undergraduate degree into the LLB at post-graduate level rather than choose the four year undergraduate law degree route, to expand career possibilities.

By the end of the module the percentage of LLB students registered for the LRWR module had fallen slightly to 46.2% (61 students) with a slight decrease in BA and increase in Social Sciences students, 29 and 33 respectively, and a slight decrease in the percentage of commerce students. BA and Social Science students, 62, accounted for 46.9% of the final module enrolment. Thus the module was attended by a range of students outside of the LLB so the module had to accommodate all these

types of students and generic as well as context specific skills needed to be learned and applied.

Non-LLB students do not necessarily struggle more than LLB students, all having the same first year law background and undertaking several second year law subjects. The LRWR module however needed to take cognisance of scaffolding possibilities as non-LLB students would have been enrolled for subjects that required very different methodological approaches. Experience has shown for example, that it is non-LLB students who struggle with footnoting in particular having been taught other referencing styles in other disciplines. The range of degree representation amongst students registered for the module also provided an opportunity to explore generic skills as well as the more holistic integration of the law and legal research skills into everyday life in a more meaningful way.

6.3.3.1.2. Academic year of study of students registered for the LRWR module

Table 3: Academic year of study of students registered for the LRWR.

First year	Second year	Third year	Fourth year	Other	Total number of respondents
3	94	11	2	0	110
2.7%	85.5%	10%	1.8%	0%	100%

By far the majority of students at the time of the questionnaire, 94 (85.5%) were second year students. The small percentage in third and fourth year would have been those repeating the module, changing degrees, changing universities and meeting UKZN Law Faculty requirements, and following a different order of modules for various reasons. This pattern of registration varied only slightly between the administration of the questionnaire at the beginning of the module and the end of the module. There were slightly more third year students in the class by the end of the module, many of them repeating the module and straddling academic years of study.

Whilst students in their first year of studying law would have been exposed to many of the concepts and content included in the LRWR module, it would not have been in-

depth or a particular focus. Use of the literature is generally limited as is reflected in the questions on reading and use of the law library. The LRWR module in second year provides the opportunity to focus on research with respect to problem solving, in-depth treatment of particular knowledge and skills and tries to adopt an approach that offers students the opportunity to take some active responsibility for dealing with module content.

6.3.3.1.3. Gender of students registered for the LRWR module and cross-tabulation between degree and gender

At the time of the questionnaire, the number of female students far exceeded the number of males. A total of 67 females and 43 males completed the questionnaire. There is a growing trend of more and more females registering for university study and law in particular.¹⁴ By the end of the module registration figures indicated a fairly even number of males and females in the module: 68 females and 64 males. Table four below indicates the cross-tabulation between degree and gender with respect to final registration in the module.

Table 4: Cross-tabulation between gender and degree registered for of final student registration for the LRWR module. N = 132.

Degree	LLB	BA	B Soc Sci	B Comm	TOTAL
Gender					
Male (actual numbers and as a percentage of the total number of male respondents)	26 40.6%	18 28%	15 23%	5 7.8%	64 48%
Female (actual numbers and as a percentage of the total number of female respondents)	35 51.4%	11 16%	18 26.4%	4 5.8%	68 52%

¹⁴ International Education Association of South Africa. *Study South Africa*. www.studysa.co.za. Accessed: 12.11.2005; Ministry of Education. *Pandor: Carnegie-South Africa undergraduate women's scholarship programme* (18.01.2005). www.polity.org.za/article.php?a_id=61736. Accessed: 23.2.2005. In 2001 56% of university qualifications were awarded to women.

The percentages in the above table indicate percentage of the total number of respondents within that particular gender group. More females than males were registered for the LLB degree and the B Social Sciences degree whilst more males were registered for the BA degree; numbers of Commerce students being similar.

6.3.3.1.4. Racial composition of students registered for the LRWR Module

Table 5: Racial composition of students registered for the LRWR module.

African	White (European)	Indian	Coloured	Total respondents
53 48.2%	29 26.4%	26 23.6%	2 1.8%	110

The traditional racial classification in South Africa has been used, as shown above.¹⁵ The classification of people according to race in South Africa has always been problematic. Here, the official categorisation of persons is used. African refers to indigenous black people; Indian refers to those people from the Indian subcontinent, whose origins in South Africa date back to the time of indentured labour imported from the Indian subcontinent who settled here permanently. Coloured refers to those people of mixed African and European descent and White refers to all those of European descent.

At the time of the questionnaire, by far the majority of students registered for the degree were 'non-white': African, Indian and Coloured; the total number of 'non-white' students, 81, making up 73.6% which mirrors the changing nature of the university student demographics as a whole. This pattern is also moving towards reflecting national and regional population trends by race.¹⁶ As almost half of the class was African, this meant that almost half the class comprised speakers for whom English was a second language.

¹⁵ See Chapter seven: 7.2.5.2 for an explanation of race classification in South Africa.

¹⁶ Nationally, 79% classified themselves as African; 9, 6% as White; 8,9% as Coloured; and 2,5% as Indian/Asian according to the 2001 national census. www.gov.za. Accessed: 12.11.2005.

6.3.3.2. Motivation for studying law and views on desired skills of a legal practitioner

Students were asked to indicate their reasons for studying law and what skills they thought a legal practitioner should possess. In terms of the question to do with reasons for studying law, a range of answer options was provided and students could mark as many options as they wished. The question concerning skills a legal practitioner should have was open ended so responses needed to be categorised.

6.3.3.2.1. Reasons given for studying law

Students were provided with a list of options and were able to mark more than one option from the list. The results are provided in Table six below.

Table 6: Reasons given by the students for wanting to study law. N = 110.

REASONS FOR WANTING TO STUDY LAW	Number of respondents who indicated this option	Percentage of respondents
Interested in law	79	71.8%
Always wanted to study and practice law	56	50.9%
Broaden career options	46	41.8%
Hope to make a lot of money	38	34.5%
Prestige of the legal profession	31	28%
Other (please specify) (concerned about social inequality; social duty; give back to society; help the poor; social justice; useful background)	13	11.8%
Have a legal practitioner in the family	11	10%
Did not know what else to do	11	10%
Parental pressure	10	9%

There was a total number of 295 responses indicating that many students had proffered more than one option. The majority reason given for wanting to study law was an interest in law that was given by 79 respondents or 71.8% of students registered for the module, which is not surprising if the students were registered for the module (even if it is compulsory!), particularly those registered for degrees other than the LLB. This finding is in tandem with the 56 respondents or 50.9% of total responses that indicated that they had always wanted to study and practice law, although these two figures indicate that an interest in law does not necessarily translate into a desire to practice law. The prestige of the profession and money were drawcards. The 46 respondents (41.8%) who indicated that studying law broadened career options supports the opinions expressed by writers such as Bradney and Bell¹⁷ amongst others (see Chapter 2: 2.2.6.) of the notion of a university education being an education for life not just a narrow vocational focus, and improved career opportunities influence subject choices students make. Whilst the LRWR module is context specific, it is designed to emphasise generic as well as context specific skills and knowledge.

6.3.3.2.2. Specific skills a good legal practitioner should have

This question asked students to list those skills they thought a good legal practitioner should possess. This question was open ended so responses had to be categorised. The outcomes listed in the table below indicate the percentage of students and the number of students who listed a particular skill:

¹⁷A Bradney. Liberalising legal education. In: Cownie, F. *The law school-global issues, local questions*. (1999); J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies*. (2003) 903.

Table 7: Skills listed by the students that a good legal practitioner should have (in descending order of skills most commonly cited). N = 110.

CATEGORISED RESPONSES OF SKILLS THAT A GOOD LEGAL PRACTITIONER SHOULD HAVE	Number of respondents who indicated this option	Percentage of respondents
1. Communication skills: listening, verbal, writing	71	64.5%
2. Analytical, problem solving, critical thinking skills	56	50.9%
3. Dedicated, passionate, hardworking	38	34.5%
4. Sound legal knowledge, intelligent, well educated	28	25.4%
5. Honesty, good morals, ethics and values	21	18%
6. Confidence, discipline, level headedness	20	18%
7. Research skills	13	11.8%
8. Other attributes referred to less than 3 times each (dishonest; good; think on your feet; smart)	10	9%
9. Objectivity	10	9%
10. Management and organisation skills	7	6.3%
11. Quick witted	3	2.7%
12. Tough	3	2.7%

Communication skills featured most prominently, attracting 71 student responses (64.5%) and in general, the ‘personal-cum-personality’ attributes, values, attitudes and communication abilities in combination (items 1, 2, 4, 5, 8, 9,10, 11, 12) received most attention. The formal ‘taught’ knowledge and traits and skills that come from the formal education process were the fourth skill considered most necessary at 28 responses (25.4%). Research skills featured particularly badly, 13 respondents (11.8%). This finding may be due to the fact that students were not yet aware of the nature of, and need for such skills. The poor consideration given to research skills is to some degree borne out in the reflection exercise.

6.3.3.3. General computer skills and knowledge

This section covered data collected in relation to computer literacy; where computer skills were obtained; amount of time spent using a computer and general purposes for which computers were used.

6.3.3.3.1. Computer literacy

The majority of respondents, 98 or 89.1%, said they had passed the compulsory Introduction to Computers component of the first year module, Legal Studies 110. Of the respondents, 12, or 10% answered No. Most of those who said no had been exempted from the course. The high percentage of responses in the affirmative confirmed that the basics of computer training were not necessary for the LRWR class and more sophisticated computer use could be focused on in terms of searching. The following table indicates where students registered for the LRWR module learned how to use a computer:

Table 8: Places where students first learned how to use a computer.

PLACE WHERE STUDENTS FIRST LEARNED TO USE A COMPUTER	Number of respondents	Percentage of respondents
Junior school	30	27.3%
High school	31	28.2%
University	25	22.7%
Home	24	21.8%
Total	110	100%

These statistics indicate that 61 students (55.5%) had learned how to use a computer before reaching university. The 25 students (22.7% of respondents) who only got to learn at university is considerable and an indication of the lack of computer facilities (and internet access) in schools and the home.¹⁸

¹⁸ 10.5% of 10 million households in South Africa projected to have internet access in 2003: T James. *South African IT industry strategy (SAITIS) baseline studies: presentation to African Development Forum, Addis Ababa, Ethiopia 25-29 October 1999.*(1999). www.uneca.org/adf99/tina.ppt.. Accessed: 12.11.2005.

6.3.3.3.2. General purpose for which computers were used and frequency of use

Table 9: Nature of usage of computers of students whilst at University. N = 110.

PURPOSE FOR WHICH COMPUTERS WERE USED	Number of respondents	Percentage of respondents
Searching the Internet/www	99	90%
Searching for online information for assignments	99	90%
Using a search engine such as Google, Yahoo	98	89%
E-mailing	98	89%
Searching or using CDROM	98	89%
Wordprocessing	84	76.3%
Searching the Library catalogue/OPAC	75	68%
Recreational purposes e.g. games, music	54	54%
Searching online academic databases via the Library's website	29	25.3%
Other, please specify	2	.2%

Students were able to tick more than one option and a total of 681 responses from all the respondents and options were ticked. The results showed that the respondents were very familiar with the online environment and in particular use of the World Wide Web. Responses showed that a small percentage of students, 29 (25.3%), used academic databases. It had been explained to the class what was meant by academic databases. Students who might have had formal training in information retrieval would have known the difference between databases subscribed to by the library and those accessible for free via search engines. The nature of the use of CDROM, search engines and the Internet was not fleshed out in the questionnaire.

The use of the library catalogue was high in comparison to academic databases perhaps reflecting an emphasis on book resources in many first year modules and lack of knowledge about other academic resources available. Instruction in the

catalogue is offered by the Library during the first term of each year and a number of first year modules include a library visit where students would have been instructed in catalogue usage.

The table below indicates the responses by students to the question of which three activities they used a computer for most. This question is slightly different from the preceding question in that it asked students to rank usage in terms of the top three most common activities rather than all the activities they used computers for.

Table 10: The top three activities students used computers for most. N = 105.

ACTIVITY COMPUTERS USED FOR MOST	Number of respondents	Percentage of respondents
E-mailing	71	64.5%
Searching for online information for assignments	62	56.3%
Word processing	54	49%

A total of 105 students responded to this question. The three most popular uses of the computer were for e-mailing, searching for online information for assignments, and word processing. Use of academic databases and the catalogue fared badly as most popular computer activities (3.6%). At the time of the questionnaire, social networking had not yet come into its own and access is restricted on campus outside of core working hours namely 7am till 5 pm so e-mailing was the dominant electronic form of communication during the day.

Students were asked to indicate how frequently they used computer facilities. The responses are listed in Table 11 below.

Table 11: Frequency of use of computers by students. N = 110.

FREQUENCY OF USE OF COMPUTERS	Number of respondents	Percentage of respondents
Several times a day	24	21.8%
Once a day	24	21.8%
More than once a week, but not every day	39	35.4%
Once a week	5	4.5%
Only when an assignment is due	14	12.7%
Less than once a week	4	3.6%

Responses indicated that students were generally fairly frequent users of computer facilities at the time of the administration of the questionnaire. Over 40% of respondents used a computer at least once a day.

6.3.3.4. Usage of electronic resources for academic purposes

The questions in this section dealt with the direct use of the Internet (World Wide Web) for information relating to law courses, whether such searches were successful and if not why not, the use of the UKZN Library's website, and use of academic databases.

6.3.3.4.1. Direct use of the Internet for finding information relating to law courses

A majority of students, some 72 students (65.5%), indicated that they had not used the Internet to find information relating to law courses in particular, whilst 33 students (35.5%), indicated they had used the Internet for information related to law courses. Many law courses have prescribed textbooks, most of which are available in the Library's Academic Reserves section. In first year much reading is prescribed and reading lists given so students do not have to search for reading material on their own. Much legal information, such as case law, is only accessible via subscription databases or IP controlled access and content access would be restricted via general Internet searching.

Students were asked to name the information they had looked for and how they searched for it. This question was open ended so results were categorised. There

was a narrow range of answers. Only 30 students of the 33, who said they had used the Internet to find information relating to law courses, answered this question. The responses are listed below in Table 12. Three respondents answered incorrectly as they indicated having searched for non law information.

Table 12: Searching for information relating to law courses directly on the Internet.
N = 30.

INTERNET SEARCH	Number of respondents	Percentage of respondents
Non law information	3	10%
SA Constitution	7	23.3%
Law websites	20	66.6%

It is not clear what was meant by law websites but presumably 'internet' sites pertaining to particular topics students were studying. The responses did not indicate how students searched or what these sites were. The responses to the above question do clearly indicate a gap in law students' knowledge of the availability of academic and subscription legal resources through which most primary legal information is available.

Students were asked whether their searching directly via the Internet was successful. Of the total number of respondents, 31 students (86%) answered in the affirmative whilst 5 students (13.8%) answered No. Most students had successfully found their information. What was not indicated was the nature of the search strategy and efficiency of searching and how resources were evaluated, components which are included in the module.

Students who did not find needed information were then asked to provide reasons why they might not have found needed information. This question was an open ended question so responses had to be categorised. The responses are indicated in Table 12 below.

Table 13: Reasons for unsuccessful Internet search. N = 5.

REASONS FOR UNSUCCESSFUL INTERNET SEARCH	Number of respondents
Site not active	1
No sites and restricted access to law reports	2
Problems with keywords	2

Only 5 respondents indicated that their searching had been unsuccessful, the three reasons that were mentioned were the non availability of sites, restricted access and problems with keywords. These responses reflect critical factors in the successful usage of electronic information. Academic sites in particular are often subscription based with particular access rights. It is only since the current study was undertaken that software that links articles from a search undertaken via a facility such as Google to UKZN Library subscription databases, been introduced. This facility is not yet available for all databases. Identification of appropriate search terms within the electronic environment and those that operate via controlled vocabulary has been identified as problematic in some situations by academic staff experienced in literature searching, so it would be expected to be potentially problematic for inexperienced student searchers. Practical exercises with students have indicated that it is not easy or automatic to develop the particular kind of thinking required to construct searches in controlled vocabulary environments in particular.

6.3.3.4.2. Use of the UKZN Library's website

Just more than half of the respondents, 62 (56.3%), indicated that they had not used the UKZN Library's website, whereas some 48 students (43.6%) had used it. An open ended question was asked of respondents in terms of the purpose for which they used the website. Students were not asked how they came to find out about the Library's website. One of the practical classes was devoted to explaining what the Library's website had to offer and how and why it was being developed. The responses were grouped together and are provided in Table 14 below.

Table 14: Purposes for which the UKZN Library's website was consulted. N = 48.

USE OF THE UKZN LIBRARY'S WEBSITE	Number of respondents	Percentage of respondents
Information for assignments	14	29%
Library's catalogue	14	29%
Exam papers	10	20.8%
UKZN issues	6	12.5%
Information about the library	2	4.2%
Referencing	1	2%
Journals	1	2%

This question was an open ended one because of the wide range of information accessible from the Library's website. Responses were then categorised and presented in the above table. The most common uses of the Library's website were for finding information for assignments and the catalogue. The responses do not indicate precisely what was meant by information that was being searched for. It may or may not have included items specifically mentioned by some respondents such as journals. The Library has computers dedicated to the catalogue so it is not necessary, except from a remote location, to get to the catalogue via the Library's website. Much basic material, particularly textbooks is placed on Academic Reserves and students are referred to this location in class or in module handouts. The teaching of the use of the catalogue is considered a fundamental step in the process of acknowledging resources as it is a tool that provides access to a range of information locally available.

The Library's website does not provide information about university issues but there are links to the University's website. Whether the 6 respondents (12.5%) who had looked for information relating to the University used the Library's website to get to the University's website or whether they misread the question as referring to the University's website rather than the Library's website is not clear. Academic databases are not referred to at all although access to them might have been covered in terms of the responses that referred to usage for accessing journals and

information for assignments. As the Library is developing its website as an information gateway, usage of it is included in the module.

6.3.3.4.3. Usage of academic databases and websites for academic purposes

Students were asked to indicate from a given list, whether they had ever used particular academic databases or websites, most of them relating to legal information. There were 47 responses in total. The responses are indicated in Table 15 below.

Table 15: Usage of academic databases and websites relating to law. N = 47.

DATABASES AND WEBSITE USAGE	Number of respondents
Constitutional Court	16
EbscoHost	7
Legal Periodicals and Books	7
Index to South African Periodicals	6
LexisNexis	6
Other academic databases or websites – please specify	3
Westlaw	2
Butterworths Legal Resources	0

There were 47 indications of academic database and website use. Some students chose more than one option thus the 47 responses were indicated by 33 students. Nine of these 33 students were registered in the third year of study. The three students who ticked the 'Other' option, did not specify what it was they had used. Many first year modules do not deal with literature and information beyond books and possibly limited use of journals and few first year modules organise library instruction in the use of databases. Legal databases are not required to be used in the first year as casebooks and photocopies of journal articles are usually provided via Academic Reserves. It is likely that many of the respondents may have been those students who had already attended the LRWR module in the previous year. These responses

mirror the responses to earlier questions about the use of academic databases, in that usage is very small. Jutastat, the South African database collection was omitted from the list of answer options as it was only operational in the intranet format from late January 2006. Experience has indicated that many users of electronic information do not understand or are not aware of the differences in the nature of electronic information and access restrictions. Electronic searching is thus not seamless and students need to be taught about these differences.

6.3.3.5. Use of the law library

Students were asked whether they had ever used the Pietermaritzburg campus Law Library for information relating to law courses and if they had, for what purpose. In terms of the purpose for using the Law Library, students were provided with a list of purposes to choose from as well as an option to indicate a purpose that may not have been accommodated in the list. Students could choose more than one option. The total number of respondents who indicated they had used the Law Library was 83, (75%), whilst 27 (25%) respondents indicated they had not used the Law Library. The total number of times usage options were chosen was 241, indicating multiple use of the law library. Table 16 below indicates the purposes for which the Law Library was used.

Table 16: Purposes for which the Law Library was used. N=110.

PURPOSE FOR WHICH LAW LIBRARY HAD BEEN USED	Number of respondents	Percentage of respondents
Short Loan books and photocopies	74	89%
Photocopy facilities	49	59%
Law reports	31	37.3%
Journals	22	26.5%
Reference books such as dictionaries and encyclopedias	19	22.8%
Books other than those from Short Loan	17	20.4%
Library's catalogue (OPAC)	16	19%
Statutes	12	14.4%
Other, please specify	1	1.2%

The responses revealed heavy usage of Short Loan (renamed Academic Reserves in the second half of 2006) materials. In the law library the Academic Reserves facility is the focus of the library for students as all prescribed texts and readings are kept here. As there are few substitutes for South African texts; new editions are published frequently due to changes in the law; and multiple texts are needed for the numerous modules undertaken each semester; reliance on this provision is high. Usage of materials outside of Academic Reserves is fairly small indicating the reliance on Academic Reserves and perhaps a lack of appreciation of the range of resources available. The LRWR module seeks to redress this. Photocopy statistics are high. The commerce faculty located close by has no photocopy facilities for students. Many students photocopy because they do not purchase personal copies of texts and material kept in the Academic Reserves section is mostly issued for use by the hour. Law reports and statutes may not be borrowed from the library and exposure to electronic versions is only formally provided in the LRWR module. At first year level, students do little research on their own.

6.3.3.6. Approaches to working and reading

Students registered for the LRWR module were asked a number of questions relating to their work habits and in particular the extent to which they read material relating to law courses. Reading habits were explored a bit further in terms of the characteristics by gender and race and degree registered for. The responses are provided in the following tables. Prior to this, two questions relating to what students did if they did not understand something in lectures and what difficulties, if any, they had had in legal modules the previous year were asked.

6.3.3.6.1. Course of action when not understanding lectures

Table 17: What students did first when they did not understand something in lectures. N = 110.

COURSE OF ACTION FIRST TAKEN	Number of respondents	Percentage of respondents
Ask a friend	68	61.8%
Read the textbook	62	56.4%
Ask the lecturer	43	39.1%
Use library resources	15	13.6%
Search the Internet	12	10.9%
Go to the library and ask for help	7	6.4%
Other, please specify	5	4.5%
Rote learn the information	3	2.7%
Ignore the information	2	1.8%

The total number of responses, 217, indicated that many students had marked more than one option so it is difficult to interpret the responses in terms of which was done first, but it would appear that verbal help was the preferred method given the percentage of students who indicated asking a friend in particular, or the lecturer. The textbook was the next preferred option. Those that ticked the 'other' option, failed to specify what course of action it was that they took.

6.3.3.6.2. Difficulties experienced with law modules in the previous academic year

Students were asked to tick from a range of options provided, what difficulties they had experienced with law modules in the previous academic year (first year for most). They were able to tick more than one option. There were 226 responses in total indicating that many respondents had chosen more than one option. The results are presented below.

Table 18: Difficulties with law modules in the previous year of study. N = 110.

REASONS FOR DIFFICULTIES WITH LAW MODULES	Number of respondents	Percentage of respondents
Legal vocabulary	48	43.6%
Explaining, in writing, how the law applies to a particular set of facts	48	43.6%
Applying the law to problems	36	32.7%
Reading and / or understanding cases	27	24.5%
FIRAC as a problem solving approach	24	21.8%
Identifying issues in a problem scenario	21	19.1%
Problem-solving	17	15.4%
Other, please specify	5	4.5%

Legal vocabulary and applying the law in writing were listed as the most common causes of difficulty with law modules in the previous year, followed by problems with applying the law. Law, like many disciplines, has its own distinct vocabulary and many words and concepts have meanings peculiar to their legal context. Applying the law requires a particular type of analysis and presentation of information. Arts students had the most difficulty with all categories except applying the law to problems. Social science students had the most difficulty with applying the law whilst Commerce students appeared to have most difficulty with explaining the law in

writing, identifying issues and almost as much difficulty as Arts students with problem-solving and legal vocabulary. Those students who indicated 'Other', failed to clarify what they meant.

FIRAC is the core of problem-solving in law (this concept was explained in Ch.2: 2.2.5.). As a process it requires identification of legal facts and issues, ascertaining the relevant law, applying the law to the situation at hand and then concluding. Despite tutorial and exam questions in first year, it would appear that problem-solving and application of the law is still problematic and a skill that takes time to develop. Students have come to expect 'model answers' to questions which does not enable them to actively explore the process of arriving at a conclusion and they often presume there is always a model answer. FIRAC in itself is insufficient and whilst understood superficially, actually applying this method is where the difficulty lies.

The decision to adopt a constructivist approach of taking an ill-defined problem and working through it in detail in the LRWR module was made as a way of fleshing out the steps of FIRAC and elucidating the inherent research inquiry requirements of each step. Finding and identifying the relevant law and then applying it, particularly in writing, requires critical thinking. The use of an ill defined problem studied actively, in depth, was considered one way of scaffolding the steps in FIRAC to enable students to understand how legal problem-solving actually works. The interrelationship between critical thinking, reading and writing and problem-solving appears to need more emphasis within the early stages of the degree programme.

6.3.3.7. Reading patterns

Students were asked to indicate whether they had experienced difficulty with reading any of the sources of legal information. Of the 106 students who answered this question, 48 students (45.2%) answered Yes, whilst 58 students (54.7%) answered No. The respondents were then asked to indicate the reasons for these difficulties if they had replied in the affirmative to having had difficulties reading legal information. Only 48 students (45.2%) answered this question. As the question concerning reasons for having difficulties was an open ended question, like answers had to be grouped together. The table below presents the categories of reasons.

Table 19: Reasons for having difficulty reading legal sources of information. N = 48.

REASON FOR DIFFICULTY IN READING LEGAL SOURCES	Number of respondents
Language and vocabulary	28
Offered no reason	7
Cases difficult to understand	7
Not understanding what I was reading	3
Wide range of sources to consult	1
Journals difficult to read	1
FIRAC	1

Of the respondents, 7 students who indicated having had difficulty with reading did not respond to the question 'why'. The responses about reading difficulties showed that language and vocabulary appeared to be a major factor by a wide margin.

Unfortunately it is necessary to read in order to 'pick up' the vocabulary of a discipline. The focus in the title of the module on reading is warranted as academic reading does appear to be problematic for students and is an integral part of applying the law. Arts and Social Science students appeared to have experienced the most difficulty with language and vocabulary related to legal texts and not understanding what they were reading. Commerce students had most difficulty with reading cases.

Students were asked to indicate whether they read over and above lecture notes and handouts. The following table reflects the responses in terms of percentage of students registered for the module who answered the particular categories of questions and number of students per category of answer. Between 2.7% and 27% of students did not answer the various categories for this question in full or at all.

Table 20: Frequency of and nature of reading over and above lectures and the textbook (expressed as percentages of total number of respondents and actual numbers.) N = 110.

KIND OF READING	FREQUENCY OF READING							
	Always read		Sometimes read		Never read		Did not respond	
Relevant sections of the textbook	68	61.8%	35	31.8%	4	3.6%	3	2.7%
Relevant sections of the casebook	37	33.6%	35	31.8%	20	18%	18	6.3%
Other books	13	11.8%	46	41.8%	29	26.3%	22	20%
Recommended journal articles	17	15.4%	39	35.4%	30	27%	24	21.8%
Full length cases in the law reports	13	11.8%	39	35.4%	34	30.9%	24	21.8%
Statutes	7	6.3%	35	31.8%	38	34.5%	30	27.2%

The responses above indicated a heavy reliance on the textbook which is not surprising as this is the first port of call for extra information. More than half the respondents, 68 (61.8%) always read the textbook. The fact that some students do not always read the textbook is of concern and reflects perhaps an interpretation that lecture content is deemed sufficient or reading is an activity not considered that important in the academic programme, or they simply do not know they need to read further.

The use of the textbook is considered more important than the casebook¹⁹ according to the responses. Not surprising are the responses in terms of never reading full length cases and statutes as these can be difficult and at first year level, students can get by without reading them. In first year students do have to undertake case analysis

¹⁹ A casebook is a compilation of summaries of important cases usually relating to a particular subject area.

but it would appear that beyond this exercise, usage is limited. Students often cite the length of cases; difficulty of language particularly in older cases and lack of time to read cases as reasons not to read them. The summarized version of the case presented in lectures is often seen as sufficient. Reading beyond the textbook and casebook in terms of other books is also limited. Again this could be due to perceived time constraints, lack of necessity for further reading, lack of interest in extra reading or inability to locate other reading material. The quite large percentage of students who indicated they had difficulty reading sources could well provide explanation for the generally poor reading of students.

Across all six options, in the 'never read' category responses ranged from 4 students (3.6%) to 38 students (34.5%), the smallest percentage being with respect to the textbook. The greatest variance was in the 'always read' category, the responses ranged from 7 students (6.3%) to 68 students (61.8%). The smallest range of responses was in the 'sometimes read' category. As regards the reading of the textbook there was a direct relationship between amount of reading and percentage who read with the greater number always reading the textbook. With the reading of statutes there was an inverse relationship between the amount of reading and the percentage who read, with the smallest number of respondents reading statutes always and the largest number never reading statutes.

One of the purposes of the LRWR module is to encourage students to appreciate the need to search widely, and why a range of sources may be needed for an answer, and encourage reading in terms of the need to substantiate an answer.

6.3.3.7.1. Cross-tabulations between reading and race and gender and degree registered for

The following tables indicate cross-tabulations between reading and race and gender.

Table 21 A: Cross-tabulation between reading and race. N = 110.

(W = White students; I = Indian students; A = African students; C = Coloured students).

KIND OF READING	FREQUENCY OF READING (expressed as percentages of total number of respondents in that race group and actual numbers.)							
	Always read		Sometimes read		Never read		Did not respond	
Relevant sections of the textbook	A	30 56.6%	21 39.6%	0 0%	2 3.8%			
	W	19 65.5%	8 27.6%	1 3.4%	1 3.4%			
	I	17 65.4%	6 23.1%	3 11.5%	0 0%			
	C	2 100%	0 0%	0 0%	0 0%			
Relevant sections of the casebook	A	16 30.2%	20 37.7%	8 15.1%	9 17%			
	W	8 27.6%	9 31%	5 17.2%	7 24.1%			
	I	13 50%	5 19.2%	6 23.1%	2 7.7%			
	C	0 0%	1 50%	1 50%	0 0%			
Other books	A	7 13.2%	21 39.6%	15 28.3%	10 18.9%			
	W	1 3.4%	14 48.3%	7 24.1%	7 24.1%			
	I	5 19.2%	10 38.5%	6 23.1%	5 19.2%			
	C	0 0%	1 50%	1 50%	0 0%			
Recommended journal articles	A	11 20.8%	18 34%	13 24.5%	11 20.8%			
	W	1 3.4%	12 41.4%	8 27.6%	8 27.6%			
	I	5 19.2%	8 30.8%	8 30.8%	5 19.2%			
	C	0 0%	1 50%	1 50%	0 0%			
Full length cases in the law reports	A	5 9.4%	23 43.4%	15 28.3%	10 18.9%			
	W	3 10.3%	11 37.9%	8 27.6%	7 24.1%			
	I	5 19.2%	4 15.4%	10 38.5%	7 26.9%			
	C	0 0%	1 50%	1 50%	0 0%			
Statutes	A	3 5.7%	19 35.8%	17 32.1%	14 26.4%			
	W	2 6.9%	10 35.4%	8 27.6%	9 31%			
	I	2 7.7%	5 19.2%	12 46.2%	7 29.6%			
	C	0 0%	1 50%	1 50%	0 0%			

Overall, there were no distinct patterns for any one group. There was a greater tendency towards 'always read' the textbook by all groups of students rather than 'never read' or 'sometimes read.' For all groups of students there was a greater tendency to 'sometimes read' other books, journal articles, cases and statutes than never or always read. More White and Indian students 'always read' the textbook

while more Indian and African students 'always read' the casebook, other books and journal articles, and by considerable margins compared to other race groups. A larger percentage of Indian students 'never read' the textbook, casebook, full length law reports and statutes. More African students 'sometimes read' the text book with none claiming to 'never read' the textbook. As there were only two Coloured students, no useful information could be gained about them. White students formed the majority of those who 'sometimes read' other books, journal articles and statutes. African and White students formed a majority in terms of those who 'sometimes read' in all categories. For all race groups, the textbook and the casebook dominated their primary reading. The greatest discrepancies were between the 'always read' and 'sometimes read' categories.

Table 21 B: Cross-tabulation between reading and gender (M = male students; F = female students). N=110

KIND OF READING	FREQUENCY OF READING (expressed as percentages of total number of respondents in each gender group and actual numbers.)							
	Always read		Sometimes read		Never read		Did not respond	
Relevant sections of the textbook	M 22	51.2%	16	37.2%	3	7.1%	2	4.7%
	F 46	68.7%	19	28.4%	1	1.5%	1	1.5%
Relevant sections of the casebook	M 11	25.6%	15	34.9%	8	18.6%	9	20.9%
	F 26	38.8%	20	29.9%	12	17.9%	9	13.4%
Other books	M 4	9.3%	17	39.5%	12	27.9%	10	23.3%
	F 9	13.4%	29	43.3%	17	25.4%	12	17.9%
Recommended journal articles	M 9	20.9%	10	23.3%	13	30.2%	11	25.6%
	F 8	13.4%	29	43.3%	17	25.4%	13	17.9%
Full length cases in the law reports	M 4	9.3%	17	39.5 %	14	32.6%	8	18.6%
	F 9	3.4%	22	32.8%	20	29.9%	16	23.9%
Statutes	M 4	9.3%	14	32.6%	14	32.6%	11	25.6%
	F 3	4.5%	21	31.3%	24	35.8%	19	28.9%

Except in the case of statutes, more male students 'never read' the sources than their female counterparts. The biggest variation was in the reading of the textbook. Far more females 'always read' the textbook and the casebook, whereas more males

'sometimes read' the textbook and casebook. In the other four categories of sources, both groups indicated 'never read' as outstripping 'always read' by considerable margins. A majority of male students 'sometimes read' law reports and statutes, but by small margins. Female students 'sometimes read' more in terms of other books, journal articles, law reports and statutes. For males and females, the priority reading was the textbook and casebook.

In four questions more males than females failed to respond, and in three questions more females than males failed to respond. This obviously affects interpretation of and meaningfulness of responses but it would generally appear that female students were more frequent readers than their male counterparts. Gender did not appear to be a major factor in terms of reading preferences.

The next table reflects the cross-tabulation between reading and degree registered for.

Table 21 C. Cross-tabulation between reading and degree registered for. (L = LLB; BA = Bachelor of Arts degree; BSS = Bachelor of Social Science degree; BC = Bachelor of Commerce degree.) N = 110

KIND OF READING	FREQUENCY OF READING (expressed as percentages of total number of respondents registered for that degree and actual numbers.)									
		Always read		Sometimes read		Never read		Did not respond		
Relevant sections of the textbook	L	39	70.9%	13	23.6%	2	3.6%	1	1.8%	
	BA	9	42.9%	9	42.9%	1	4.8%	2	9.5%	
	BSS	16	64%	9	36%	0	0%	0	0%	
	BC	4	44.4%	4	44.4%	1	11.1%	0	0%	
Relevant sections of the casebook	L	24	43.6%	13	23.4%	10	18.2%	8	14.5%	
	BA	4	19%	7	33.3%	5	3.8%	5	23.8%	
	BSS	6	24%	14	56%	4	16%	1	4%	
	BC	3	3.3%	1	11.1%	1	11.1%	4	44%	
Other books	L	8	14.5%	22	40%	14	25.5%	11	20%	
	BA	2	9.5%	8	38.1%	7	33.3%	4	19%	
	BSS	3	12%	13	52%	6	24%	3	12%	
	BC	0	0%	3	33.3%	2	22.2%	4	44.4%	
Recommended journal articles	L	9	16.4%	18	32.7%	15	27.3%	13	23.6%	
	BA	3	14%	7	33.3%	8	38.1%	3	14.3%	
	BSS	4	16%	12	48%	5	20%	4	16%	
	BC	1	1.1%	2	22%	2	22%	4	44.4%	
Full length cases in the law reports	L	10	18.2%	19	34.5%	14	25.5%	12	21.8%	
	BA	1	4.8%	7	33.3%	10	47.6%	3	14.3%	
	BSS	2	8%	10	40%	8	32%	5	20%	
	BC	0	0%	3	33.3%	2	22.2%	4	44.4%	
Statutes	L	5	9.1%	14	25.5%	21	38.2%	15	27.3%	
	BA	2	9.5%	6	28.6%	7	33.3%	6	28.6%	
	BSS	0	0%	12	48%	8	32%	5	20%	
	BCC	0	0%	3	33.3%	2	22.2%	4	44.4%	

In terms of degree and reading there were some patterns. Law students 'always read' more in all categories than other degreed students except statutes where BA students had a small edge. Social science students 'sometimes read' more in every category than any other degreed students except textbooks. Arts students formed the majority

of students who 'never read', in all categories except statutes where LLB students had a slight majority.

6.3.3.8. Possible activities desired in classes in terms of content, method and delivery

Students were asked to indicate from a given list of possibilities, what they would like to see more of in class in terms of content, method and delivery, were it possible. They were able to choose more than one response and these are presented in the table below. There were 430 responses in total, indicating that many students had ticked more than one response option.

Table 22: Desired activities in class in terms of content, method and delivery (in descending order of frequency). N = 110.

DESIRED ACTIVITY IN CLASS	Number of respondents	Percentage of respondents
More examples to illustrate principles	78	70.9%
How to read cases	66	60%
How to read academic texts	58	52.7%
Worksheets to facilitate working through material	56	50.9%
Debate	42	38%
Class discussion	42	38%
Small group discussion	39	35.4%
Opportunity to ask questions	25	22.7%
Independent research on topics	24	21.8%

Of all the responses, 78 students (70.9%) indicated that the item most needing more attention in class was more examples to illustrate a point. Lecturers would probably argue that the teaching of the substantive law is peppered with cases / examples in particular, by way of illustrating principles so it would be necessary to unpack exactly

what the students meant. Tutorials often involve providing students with examples in practice that requires them to identify the relevant principles from theory.

The next highest ranked item needing more attention in class was the reading of cases. This comes as no surprise given the poor responses to reading the casebook and full length cases indicated in Table 19 earlier. Not many cases are read fully in class in first year and many students get by without reading more than the casebook. It is difficult to provide a technique for reading cases despite the fact that most follow the FIRAC approach in terms of layout. The LRWR module attempted to scaffold this process by using worksheets to assist students in reading a case.

Of the total number of respondents to this question, 58 students (52.7%) thought there needed to be more class time devoted to reading academic texts. The poor response to reading other than the textbook indicated in Table 19 supports this response as perhaps students do not read as they find texts difficult.

Of the responses, 56 or 50.9% indicated they would like more worksheets during class; a lesser percentage wanted more group and class work. The emphasis on worksheets could well stem from a need to have concrete examples to work on that can be revisited in one's own time. It could also reflect the desire by students for the 'model answer'; a long formal education tradition of reliance on notes and written information; and tutorials are often based on worksheets.

Independent research fared the worst. Based on contact with students and observation, the author attributes this to the following possibilities:

- students feeling insecure about independent work given a lack of tools to do this
- student' learning styles
- students feeling they don't have time to do independent work
- dependency on the surface learning approach to work,
- laziness
- students are very grade oriented and continually seek very specific guidance about lecturer expectations.

6.3.3.9. Practical aspects of legal problem-solving

Students registered for the LRWR module were asked three questions about aspects of problem-solving. The first question concerned whether a practicing attorney had to be objective at all times. Three possible answers were provided. Of the respondents, 59 students (53.5%) answered in the affirmative; whilst 25 students (22.7%) answered in the negative and 26 students (23.6%) indicated they were uncertain.

This question does beg the definition of objective, one of the issues that the module explored continuously, as well as what objectivity means in legal contexts such as giving an opinion. This is a concept some students had difficulty grasping. It is not clear how students defined the concept. The responses did support the author's view that in terms of reading and writing and applying the law, the multifaceted nature of objectivity needed to be explored.

A second question the students were asked was whether they thought there was always a right answer to a legal problem. Three possible answers were provided for the students to choose from. Of the respondents, 7 students (6.4%) replied in the affirmative; 94 students (85.5%) replied in the negative and 9 students (8.2%) said they were uncertain.

The responses here confirm the theme of the module that 'there is no such thing (in law) as a right or wrong answer, only a well defended answer'. Responses overwhelmingly acknowledged this, although discussion and writing in the module clearly indicated that students often presumed/thought personally they had the 'right' answers to issues, and needed to learn to think 'outside the box'. The purpose of the approach in the module was to illustrate to students that the answer is not enough, but the substantiation of the answer is what is important.

A third question asked the students was what they thought they would be doing if they were writing a legal opinion. This question was open ended so responses had to be categorised. The author found it easiest to categorise according to wrong or right answers as student responses clearly indicated they either did or did not know what

an opinion was. Many attempted an answer without being really clear about their view and making it impossible to interpret, so these formed a separate category.

Table 23: What one would be doing if writing a legal opinion. N = 107

Right answer		Wrong answer		Attempted an answer		No answer given	
12	11.2%	12	11.2%	49	45.7%	34	31.4%

The responses indicate that only a small percentage of students clearly understood what a legal opinion was. There are so many options for writing assignments but the author believes that an opinion is an excellent example of bringing all the skills and knowledge about problem-solving, critical thinking, reading and writing together as well as requiring quite specific formatting. It is something students had not done before and in final year they are expected to produce a detailed opinion as part of the Moot process.

6.3.3.10. Expectations of the second academic year of studying law

Students registered for the module were asked whether they expected second year to be different from first year and to provide an explanation if they had answered in the affirmative. Of the total number of respondents, 84 students (76.4%) answered in the affirmative; 18 students (16.4%) answered in the negative and 8 students (7.3%) did not respond. The author regularly overhears students discussing expectations of modules and these discussions indicate that students are forewarned by their peers about the apparent difficulty of second year but their appreciation of the volume of work only happens as the first semester of second year unfolds. The answer as to why they expected second year to be different by those who responded in the affirmative was open ended so responses had to be categorised. Of those who responded, only two views were expressed. Of the respondents, 30 students (27.3%) said that second year would be more work; 47 students (42.7%) said that there would be more pure law courses and 33 students (30%) did not answer.

Respondents did not qualify their responses. The number of responses in terms of more work and more pure law courses – 77 - does not tally exactly with those who answered yes to the preceding question, 84. Perhaps students did not know or had not thought about it. One of the reasons for the particular approach to the LRWR module is to enable students to understand what it means to study law and that such study is not only about substantive content but skills, techniques and knowledge for managing and engaging with content.

6.3.4. SUMMARY OF THE QUESTIONNAIRE RESULTS

The students attending the module represented a range of degrees, with almost half the class (46.2%) being registered for the LLB; the smallest percentage being registered for the Commerce degree (6.8%) and a similar number registered for the Arts and Social Sciences degrees (respectively 21.9% and 25%). The vast majority of the students (85.5%) were in their second academic year of study and by the end of the module the gender split was fairly even (51.4% females) although females dominated at the time of the administration of the questionnaire by almost two thirds. African students comprised almost half the class (48.2%) with white (26.4%) and Indian students (23.6%) comprising the other half. Students were studying law for a wide range of reasons, the most popular being an interest in law (79%) ; always wanting to study law (50.9%) and to broaden career options (41.8%). More than 50% of students believed that the skills a legal practitioner most needed were those of communication and analytical, problem-solving skills.

Nearly all students who completed the questionnaire were computer literate; having used computer facilities for a range of purposes as well as on a regular basis and e-mailing was the most popular activity followed by word-processing and searching for information for assignments. The vast majority of these students were familiar with online searching. Most of these students however were unfamiliar with academic databases subscribed to by the library. Of all respondents, 99 had attempted online searching for information relating to assignments but only 33 indicated they had undertaken online searching for information related to their law courses. Some 75 students had used the Library's online catalogue. Of the respondents 48 had used the Library's website of which one third indicated having used the library's website to

access the catalogue. More than 75% of respondents had used the law library although usage was predominantly of the Academic Reserves facilities.

In terms of reading patterns, a majority of respondents, 68, always read the text book (nearly 61.8%). Only 41.8% of respondents sometimes read other books. Reading was generally focused and little reading done outside of the textbook. 'Sometimes' reading was the most consistent response. Primary sources such as cases and statutes were least read. Almost one fifth of respondents did not answer questions relating to reading with respect to books other than prescribed texts, journals, full length case reports and statutes. There was no clear pattern as to influence of race or gender on reading practices. Law students generally read more than students registered in other degrees. Nearly 44% of the students indicated having difficulties reading legal information sources with language and vocabulary far outstripping other factors as the problem with reading. This was reiterated in the responses to the question relating to difficulties experienced in the previous year. Other difficulties that received a high ranking were explaining in writing how the law applies to the facts, and application of the law. Just over half the students indicated that a legal practitioner needed to be objective. An overwhelming 85% indicated that no, there was not always a right answer to a legal problem. Most students did not know what a legal opinion was.

A range of activities were indicated as being seen as needed in class with the most popular being more examples to illustrate; how to read cases and worksheets. Of the total number of responses 28% were interested in verbal activities such as debate, class discussion and group work.

These characteristics indicate the diverse nature of the class and perhaps their learning styles and preferences in terms of how to learn. This supports the view that teaching methods needed to be varied so that learning could take place in different ways, which was how the LRWR module was designed. There was consistency in terms of computer literacy, online searching experience but lack of exposure to academic subscription databases indicating a need to focus on such resources, how to find and access, evaluate and use them. Students' reading was narrow in focus and concomitant problems of reading different texts and language and vocabulary

outlined the need to devote attention to reading and analysing texts within the module. Non LLB students appeared to have most difficulty with the steps in the process of problem-solving, indicating that the module needed to accommodate a variety of abilities and scaffold certain cognitive and practical skills. Other problems of writing and applying the law indicated the need to consider the spectrum of skills and the process within an information literacy approach from topic analysis through to the final product.

6.4. LEARNING STYLES (see Appendix four)

6.4.1. INTRODUCTION

As indicated in Chapter two (see 2:3.5.), the literature available on learning styles is considerable. Learning is not just a function of teaching but also a function of the characteristics of learners and the ways in which learners themselves approach a learning experience, their learning styles. The literature review (Ch.2: 2.3.5) has considered in detail, definitions of learning styles, characteristics of learning styles, problems associated with measuring learning styles and a range of instruments that have been developed for determining learning styles. Whilst learning styles are not fixed, several authors have indicated a general tendency of individuals to adopt a particular learning style. It has been acknowledged that some learning styles are unsuitable and learners may need to be encouraged out of particular styles.

The interest in learning styles grew out of:

- dissatisfaction with traditional teaching methods
- teaching is no longer simply about the dissemination of information
- recognition of the fact that learners do not learn in the same way even when subjected to the same instruction,
- the importance of prior knowledge of learners
- the need for learners to be active participants in their learning experiences.

It has been acknowledged that an understanding of how learners learn should feed back into teaching approaches and methods, in order to enrich the learning experience. Matching teaching strategies and learning styles can improve learning. The interest in learning styles instrument application by teachers has been mainly to be able to choose the most appropriate teaching strategies for various learning styles. This motive provided the rationale for investigating the learning styles of the students enrolled in the LRWR module.

Based largely on an evaluation of learning style instruments by the Learning and Skills Research Centre in the United Kingdom, the learning styles inventory of Vermunt was selected for administration to the LRWR students (see Ch.2: 2.3.5.3.).

Vermunt has developed an inventory of learning styles (ILS) that he claims is not new, but rather a combination of existing models. It attempts to consider the interrelationship between cognitive and regulatory learning activities, mental models of learning and learner orientations. It has been developed specifically for use with students at tertiary institutions. He has identified four broad learning styles; undirected, reproduction directed, meaning directed and application directed. His learning styles inventory was specifically designed for post secondary students and has been used largely in Europe.

Table 24: Learning styles according to Vermunt.²⁰

Learning styles	Undirected	Reproduction directed	Meaning Directed	Application directed
Components/domains				
Cognitive processing	Hardly any processing	Stepwise processing	Deep processing	Concrete processing
Regulation of learning	Lack of regulation	Mostly external regulation	Mostly self - regulation	Both external and self-regulation
Mental model of learning	Cooperation and being stimulated	Intake of knowledge	Construction of knowledge	Use of knowledge
Learning orientation	Ambivalent	Certificate and self-test oriented	Person oriented	Vocation oriented

6.4.2. ADMINISTRATION OF THE ILS

Vermunt's shortened inventory of learning styles (ILS) (see Appendix Four) of 100 statements was administered to students during a designated class near the beginning of the semester. Although learning style information needs to feed into instructional design which happens ahead of the semester, it is impossible to obtain this information about a class ahead of the semester. Based on the literature, the LRWR module was designed with the spectrum of learning styles in mind, allowing for

²⁰ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 32-45.

modification. Of the total number of students registered for the module, 115 students, 87% of the total number of students registered for the module, completed the ILS although ten were discarded because of a large percentage of unanswered statements. Less than 100% attendance at this class was the reason for not having the full complement of students. Several students omitted to answer certain sections.

The instrument offers five options of answers per statement. Students had to circle the appropriate response. Standard University coding sheets were used and these sheets later computed and results presented on a spreadsheet. Part A of the inventory covered study activities and a series of statements were given. Students had to circle one of five possible answers per statement. The answer scoring ranged from one (1) which means 'I seldom do this or never', to five (5), which means 'I do this almost always.' Part B of the inventory covered study motives and views on studying. Answer options were again five per question with one (1) representing 'Disagree entirely' to five (5) which represented the response 'Agree entirely'.

The ILS is accompanied by a scoring sheet that was not given to students as they were not scoring for themselves. The scoring sheet was divided into four sections called domains. Each domain comprised 25 statements. Domain1 dealt with cognitive or processing strategies and this domain comprised three numbered sections or scales (1, 2 and 3), one and two were further subdivided, to reflect deep processing, stepwise processing and concrete processing. Particular statements were listed under each section that were pertinent to the scale. For example, the deep processing subsection comprised statements 6, 10, 13, 24, 33 and 34 for subsection 1a; with statements 28, 36, 40 and 46 comprising subsection 1b. Scale scores were achieved by adding item scores. Domain 2 dealt with regulation strategies; domain 3 with learning orientations (five scales) and domain 4 (five scales) with mental models of learning. The first number reflects the domain with the second number reflecting the scale.

The table below indicates how the domain scoring reflected in the learning styles.

The author then totalled scores for each student in terms of scales and domains and then matched the scores to the learning styles. The table below indicates which scales are reflected in each of the domains for the four learning styles.

Table 25: Components or domains and scale scoring per learning style

Components/ domains	Learning style	Learning style	Learning style	Learning style
	Undirected	Reproduction directed	Meaning directed	Application directed
Cognitive processing Domain 1	Hardly any processing	Stepwise processing Scale 1 - 2	Deep processing Scale 1 - 1	Concrete processing Scale 1- 3
Regulation of learning Domain 2	Lack of regulation Scale 2 - 6	Mostly external regulation Scale 2 - 5	Mostly self – regulation Scale 2 - 4	Both external and self- regulation Scale 2 - 4 & 5
Learning orientation Domain 3	Ambivalent Scale 3 - 11	Certificate and self-test oriented Scale 3 - 8 & 9	Person oriented Scale 3 - 7	Vocation oriented Scale 3 - 10
Mental model of learning Domain 4	Cooperation and being stimulated Scale 4-15 & 16	Intake of knowledge Scale 4 - 13	Construction of knowledge Scale 4 -12	Use of knowledge Scale 4 - 14

6.4.3. RESULTS

Learning styles

The resultant patterns of learning styles for the LRWR class are reflected in the table below.

Table 26: Learning styles of students registered for the LRWR module. N=105

Learning style	Number and percentage of students	
Undirected	4	3.8%
Reproduction directed	37	35.2%
Meaning directed	8	7.6%
Application directed	4	3.8%
Other (Combinations of two styles)		
1. Reproduction directed & application directed	11	10.4%
2. Meaning directed and application directed	8	7.6%
No distinct style	33	31.4%

The table above indicates that half the respondents, 53, (50.4%) reflected a distinct learning style with another 19, (18%) reflecting a combination of two styles, thus making a total of 72, (72.2% of the class) who reflected a learning style orientation. Of the total number of students who completed the ILS, 33 students (31.4%), or one third, did not reflect a particular learning style. The literature has indicated that not everyone fits neatly into a learning style, nor at a particular point in time (Ch.2: 2.3.5.). In this particular case study reasons for the students who did not exhibit qualities of any of the prototypical styles could be due to the fact that this instrument was developed in Europe and may need fine tuning for the South African situation; students did not read the statements properly, or perhaps at this stage of their studies, first year being a more general year, students had not yet developed predispositions to learning styles. It was not the purpose of this study to test the ILS instrument, but rather to apply it as a means of ascertaining patterns of learning activities that would assist in the development of appropriate and multiple teaching strategies and of an active learning approach to the LRWR module. It did however serve to identify the predominant learning styles.

What is clear is the preponderance of students who exhibited reproduction directed tendencies. To reiterate, Vermunt states that the reproduction directed learning style

has characteristics of stepwise processing where learners work largely in a sequential fashion, establishing which bits of information are important and often attaching meaning in terms of the volumes of pages given to a topic. Memorising is a common form of processing. Learners in this learning style also seek external regulation preferring to rely on a narrow range of specific material rather than read around a topic and are reliant on external cues about what is important and the particular requirements of assessment methods. Time for studying is often an issue. The mental model of learning is characterised by strong external regulation, 'studying for exams' and focus is on clarity about important subject matter, relations between segments of information, lots of examples, and highly structured course materials. Discussion with fellow students is not seen as particularly important. As regards the learning orientation of this learning style, learning orientation is aimed at testing personal capabilities, passing exams and scoring as high as possible (certificate and self-test oriented). For 11 students, very little processing took place in the cognitive processing domain.

Those students who exhibited a combination of meaning and application oriented styles would have tended towards self-regulation and greater degrees of construction and deeper processing of knowledge not mere intake of knowledge. Given that the law degree caters for those in the first instance who wish to take up law as a career, the strength of the vocational orientation (application directed style) aspect is not surprising. Perhaps for these students the critical thinking involved in such a structured problem-solving discipline has a particular appeal.

Those students who exhibited a combination of reproduction and application styles would probably have tended towards more external regulation enjoying a high level of structure because of a need to pass assignments and exams in order to obtain a qualification that qualifies them for a vocation. These students would be predominantly practically focused.

This leaning towards the reproduction directed learning style is probably not surprising given the nature of school and university teaching which is still largely of the 'show and tell' kind given the large class sizes in first year and the emphasis on

summative exams and class work. Law is not an easy course of study and students are aware of the quantity of work they have to undertake and have probably not been exposed to many opportunities to 'enjoy' the study, the focus being on passing. For students exhibiting this learning style, preferred teaching methods would be lectures and readings, worksheets and quite structured sequenced problem-solving activity. It has been argued that matching learning styles with teaching methods may motivate students and lead to better performance. However, it has also been argued that learners need to be 'stretched and challenged' and meaningful learning takes place when learners have to move through various styles. Thus teaching strategies need to provoke this movement whilst being appropriate.

6.4.4. INDIVIDUAL SCALES WITHIN THE DOMAINS

This author compiled the scores for the individual scales for each of the domains to establish if there were any dominant scales. What was clear was the dominance of the reproduction directed scales in each domain which supports the overall picture as regards learning styles of students registered for the module. Despite the dominance of the reproductive directed learning style, the dominant learning orientation was that associated with the application directed learning style, namely the vocation oriented learning orientation. The table below indicates the number of students who exhibited dispositions for particular learning style scales. In several instances, students scored equally for two different scales. These students were included in each of the scales hence the total number of responses for a domain is sometimes more than the total number of students who completed the ILS. The mental models of learning domains showed the least variation in distribution of students across the learning styles.

Table 27: Characteristics of the respondents in terms of the scoring for the individual scales within the domains. N = 105.

Component	Scales and number of students (out of 105 who completed the questionnaire) exhibiting characteristics of the components and learning style			
	Undirected	Reproduction directed	Meaning directed	Application directed
Cognitive processing	Hardly any processing	Stepwise processing	Deep processing	Concrete processing
	11	68	38	10
Regulation of learning	Lack of regulation	Mostly external regulation	Mostly self-regulation	Both external and self-regulation
	5	58	28	12
Mental models of learning	Cooperation and being stimulated	Intake of knowledge	Construction of knowledge	Use of knowledge
	29	38	16	41
Learning orientation	Ambivalent	Certificate and self-test oriented	Person oriented	Vocation oriented
	9	36	13	80

6.4.5. SUMMARY

The administration of the learning styles instrument indicated a preponderance of students in the gambit of a reproduction directed learning style. Learning orientation however was strongly vocationally oriented which is not surprising given that the

degree registered for was a law degree. The fact that problem-solving skills are necessary for a wide range of vocations means that this orientation is positive but tempered with a need for this kind of learning to be intrinsically appealing. The least spread of scores was within the mental models domain. Mental models of learning appear to affect the way learners interpret instructional measures. Reproduction and application directed mental models of learning dominated. Mental models of learning are often created by the formal learning environment. In this instance, the dominating mental models reflected a focus on studying for examinations and assignments within high levels of external regulation or input from the teacher and, using and applying information in practical ways. The mental model of learning, that of construction of knowledge, was least represented and the active learning and constructivist approach of the LRWR module aimed to encourage learners to forge thinking and learning activities in a way that reflected learning as a process and its transferability and adaptability to other circumstances.

In terms of regulation of learning the dominant domain by far was external regulation which is a reflection of the 'teacher as transmitter' and controller of content, learning and assessment. Whilst encouraging deep learning so that regulation can reflect at least a balance between internal and self-regulation, the use of teaching and learning activities in the LRWR module that foster collaborative learning, and the use of a problem-solving approach with no 'model answer' aimed at helping students take responsibility for their learning and thus become more self-directed learners.

In terms of cognitive processing, the activities used to process information, Vermunt, as indicated earlier, unlike Marton and Saljo²¹ identifies three types of cognitive processing namely deep, stepwise and concrete processing. Stepwise processing far outstripped the others in terms of the LRWR class. Stepwise processing is more akin to surface learning and incorporates memorisation and low levels of constructive thought and application of knowledge. The stepwise processing supports the context of external regulation. The problem-solving approach of the module aimed at engaging learners with deep processing given the ill-structured nature of the problem

²¹ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 25-50; Marton, F and Saljo, R. "On qualitative differences in learning: I outcomes and process." (1976) 46 *British Journal of Educational Psychology* 4-11.

and the need to actively reflect and explore a range of evidence and substantiate argument. The content of the module was concrete but to be grasped via a very experiential process.

As stated earlier, Vermunt²² claims that all students should be encouraged to move out of undirected and reproduction directed styles and into meaning directed and application directed styles as these meet the aims of higher education in terms of the development of thinking skills and application of and transferability of knowledge and skills. An active learning approach to the module attempted to cater for the different ways in which students learn and attempted to move all students through the different approaches to learning and in particular develop and promote deep learning.

²² J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis." (1996) 31 *Higher Education* 47.

6.5. PRE- AND POST- TEST (Appendix five)

6.5.1. INTRODUCTION

The paired samples t-test is used where the 'question calls for the repeated measurement of responses from the same respondent... the same or similar data may be collected on more than one occasion....before and after studies....'²³ The purpose of such tests is to help determine where knowledge and skills may be deficient and establish a sense of progress made often as the result on an intervention.²⁴ The pre- and post-test was used with the LRWR module as one means of considering whether the intervention of the Legal Research, Writing and Reasoning module from an active learning perspective, would impact positively on the acquisition of skills and knowledge by students registered for the module. The pre-test aimed to provide an indication at the outset of the module, what the students did or did not know with respect to certain knowledge and skills that was to be covered in the module. The pre-test comprised twelve questions which were a combination of more broad based 'enduring understandings' – key features students should remain familiar with in terms of the process within LRWR, as well as some specifics about sources. It is acknowledged that summative tests cannot really test higher order cognitive skills. Much of what was included in the test had been at least briefly touched on in the first year Legal Studies modules. The sequence of the questions followed the steps in the process and the module.

The post-test was conducted at the end of the module and also acted as the summative test for the module. The module usually incorporates a summative test as an opportunity for students to review module material, and assess knowledge learnt of the key components of the module. The pre- and post-tests ascertained whether students might have benefited from the module intervention, bearing in mind that the influence of intervening factors cannot be determined or measured.²⁵ A written test does presuppose some ability to express in writing what has been learnt. A pre- and post-test can also provide some idea of areas of difficulty that can be worked on in terms of module design and development.

²³ RL Miller ... et al. *SPSS for social scientists*. (2002) 119-120.

²⁴ P HERNON and RE DUGAN. *An action plan for outcomes assessment in your library*. (2002) ; L COHEN, L MANION and K MORRISON,. *Research methods in education..* 5th ed. (2000) 212.

²⁵ L COHEN, L MANION and K MORRISON. *Research methods in education*. 5th ed. (2000) 217.

One hundred and four (104) students of the one hundred and thirty two (132) students finally registered, completed the pre-test, 78.7% of the class. The pre-test was administered at the first lecture. At this time, the University staff were on strike which resulted in delays in registration and the commencement of lectures. This, and the fact that late registrations occur as students await funding approval amongst other reasons, means that a full class is rarely present at the beginning of a semester. The test was piloted with a range of students prior to the use of the test. All students completed the post-test, and then those who had done both the pre- and the post-tests were paired up for comparison and analysis.

The data was input into the SPSS package and collated via the analysis options provided by this package, namely descriptive and frequency tables, cross-tabulation and T=testing. The data tables include a comparison of the pre- and post-test scores as actual numbers and percentages, in terms of lowest and highest scores, score frequencies, total number and percentage of students who passed each test, and where differences occurred: the mean, mode and median.

6.5.2. SPECIFIC QUESTIONS ON THE PRE- AND POST-TEST

6.5.2.1. Steps and activities in the process

The first question asked what the key steps and / or activities were in the process of problem-solving. This question sought to establish if students had considered problem-solving as a process and were aware of the spectrum of activities that might need to be undertaken to arrive at an answer.

Table 28: Key steps and activities in legal problem-solving. N = 104.

TESTS	Pre-test results	Post-test results
SCORE CHARACTERISTICS		
Lowest score for the question	1 3 students	2 2 students
Highest score for the question	8 4 students	10 1 student
Score frequencies		
1.00	3 students 2.9%	0
2.00	5 students 4.8%	2 students 1.9%
3.00	14 students 13.5%	8 students 7.7%
4.00	16 students 15.4%	10 students 9.6%
5.00	41 students 39.4%	17 students 16.3%
6.00	14 students 13.5%	19 students 18.3%
7.00	7 students 6.7%	21 students 20.2%
8.00	4 students 3.8%	19 students 18.3%
9.00	0	7 students 6.7%
10.00	0	1 student 1%
Total number and percentage of students who passed the question	66 63.4%	84 80.7%
Mode	5 (41 students)	7 (21 students)
Median	4.5	5.5
Mean	4.7	6

This question was fairly well answered in both the pre- and the post-test with more than half the class passing both the pre- and the post-test. In the post-test 18 (17%) more students passed the question. The mean, mode and median were higher in the post-test indicating that this question was answered better in the post-test in all respects. The average mark in the post-test was a pass whereas it was a fail in the pre-test. Reference to FIRAC (see Ch.2: 2.2.7.) was considered to constitute 5/10

marks and many students were familiar with this concept. Most did not refer to search strategy, evaluation, referencing and presentation of information. Whilst students are introduced to the concept of FIRAC in first year, it is dealt with very superficially. The LRWR module seeks to explore this basic process at a deeper more complex level. Certainly the FIRAC steps do not obviously inform the need for research and associated aspects of finding, evaluating, referencing and so on. The post-test scores indicate that there is still room for improvement in terms of in-depth knowledge and application of the process offered by the module.

6.5.2.2. Topic analysis

This question asked why a critical first step in problem-solving was analysing the problem or topic. The pre- and post-test results are given below.

Table 29: Purpose of topic analysis. N=104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	2 students	1	11 students
Highest score for the question	3	2 students	3	35 students
Score frequencies				
0.00	2 students	1.9%	0	
1.00	84 students	80.8%	11 students	10.6%
2.00	16 students	15.4%	58 students	55.8%
3.00	2 students	1.9%	35 students	33.7%
Total number and percentage of students who passed the question	18	17.3%	93	89.2%

The majority of students, 93 (89.2%), passed this question in the post-test whilst only a minority of 18 (17.3%) did so in the pre-test which is quite a dramatic difference. The average score almost doubled between pre- and post-tests with students generally doing better in the post-test. This question should not have been difficult to answer as in tutorials, tests and exams students have to analyse the questions in

order to understand what it is they have to do. Many students did not realise before the module that analysing the topic helps determine a search strategy. Much emphasis in the module was given to planning a search strategy based on topic analysis and knowledge of sources. Some 35 students gained full marks in the post-test as compared with 2 in the pre-test.

6.5.2.3. Primary and secondary sources

In this question students were asked to explain the difference between primary and secondary sources and provide examples.

Table 30: Distinguishing between primary and secondary sources. N = 104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	44 students	0	3 students
Highest score for the question	3	2 students	4	32 students
Score frequencies				
0.00	44 students	42.3%	3 students	2.9%
1.00	41 students	39.4%	9 students	8.7%
1.50	1 student	1%	0	
2.00	16 students	15.4%	21 students	20.2%
3.00	2 students	1.9%	39 students	37.5%
4.00	0		32 students	30.8%
Total number and percentage of students who passed the question	19	18.2%	92	88%
Mode	0	(44 students)	3	(39 students)
Median	1.5		2	
Mean	0.7		2.8	

There was a dramatic increase in the number of students who passed this question in the post-test: 92 (88%), compared to the pre-test: 44 (18.2%), with the most frequent score being 3 out of a total of 4 in the post-test versus 0 out of a total of 4 in the pre-test. The post-test average score was four times that of the pre-test. In the post-test

32 students gained full marks as compared with no students in the pre-test. Many students remarked during classes that they had never properly understood the difference between primary and secondary sources and their importance in the study of law. In terms of both determining a starting point; following up on sources and applying the law, the difference between these two broad categories was regularly referred to, questioned and discussed in the classes. This fundamental distinction needs to be made by those who study law as primary sources are authority in the study of law. In terms of searching for information, access to much of the electronic primary information requires a subscription so is not freely available via popular search engines.

6.5.2.4. Secondary sources

The fourth question asked students to explain why a good starting point in a search for information is the secondary sources. The results are presented below.

Table 31: Secondary sources as a starting point. N = 104

TESTS	Pre-test results	Post-test results
SCORE CHARACTERISTICS		
Lowest score for the question	0 35 students	1 15 students
Highest score for the question	3 1 student	3 46 students
Score frequencies		
0.00	35 students 33.7%	0
1.00	53 students 51%	15 students 14.4%
1.5	1 student 1%	0
2.00	14 students 13.5%	42 students 40.4%
3.00	1 student 1%	47 students 45.2%
Total number and percentage of students who passed the question	16 15.3%	89 85.5%
Mode	1 (53 students)	3 (46 students)
Median	1.5	2
Mean	0.8	2.3

This question is related to the previous question. The secondary sources are often a good starting point because the existence of relevant primary sources is often unknown and they are often difficult to read; the secondary sources repackage the primary information and refer to it. If students do not appreciate the difference between primary and secondary sources they would not be able to answer this question. Again, as with the previous question there was a dramatic improvement between the pre- and post-test pass rates and quality of scores. The average score in the post-test was three times that of the pre-test. A total of 47 students obtained full marks in the post-test as opposed to only one student in the pre-test. During the module; from the aspect of topic analysis, through search strategy and selection and

evaluation of sources, the value of secondary sources as a possible starting point is emphasised – depending on the nature of the problem or topic. The flexibility of electronic searching in terms of search functionality and across a range of publications is reducing the dependence on secondary sources as a starting point, although they are still vital for the novice searcher.

6.5.2.5. Primary and secondary source identification

In this question students were given a table of sources and asked to tick in the appropriate box in terms of their primary or secondary status: dictionary, case, journal, law commission report and statute.

Table 32: Source identification as primary or secondary. N = 104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	3 students	0	2 students
Highest score for the question	5	14 students	5	40 students
Score frequencies				
0.00	3 students	2.9%	2 students	1.9%
1.00	5 students	4.8%	3 students	2.9%
2.00	12 students	11.5%	3 students	2.9%
3.00	33 students	31.7%	11 students	10.6%
4.00	37 students	35.6%	45 students	43.3%
5.00	14 students	13.5%	40 students	38.5%
Total number and percentage of students who passed the question	84	80.7%	96	92.3%
Mode	4	(37 students)	4	(45 students)
Median	2.5		2.5	
Mean	3.3		4	

There was little difference between the mode, median and average scores for this question indicating little variation in the nature of the pre-and post-test, and the total number of students who passed in each instance was high. The same range of scores were obtained in both the pre- and the post-test but with almost three times more students (40 versus 14) obtaining full marks and the average score on the post-test being slightly higher. In the pre-test 51 students in total obtained scores of between 4 and 5 whilst in the post-test 85 students obtained scores of between 4 and 5. Both average scores were above a 50% pass. The high pass rate is interesting given the poor responses in the pre-test to question three concerning the difference between primary and secondary sources. This rate could be explained by students being unable to explain in words what the difference was between primary and secondary (although a lot of latitude was given as with regard language expression in the test) or students having only two options to 'guess' from.

6.5.2.6. LAWSA (Encyclopedia of the Law of South Africa)

This question required students to explain what LAWSA was.

Table 33: LAWSA. N = 104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	83 students	0	34 students
Highest score for the question	2	1 student	4	11 students
Score frequencies				
0.00	83 students	79.8%	34 students	32.7%
1.00	20 students	19.2%	20 students	10.2%
2.00	1 student	1%	21 students	20.2%
3.00	0		18 students	17.3%
4.00	0		11 students	10.6%
Total number and percentage of students who passed the question	1	0.96%	50	48%
Mode	0	(83 students)	0	(34 students)
Median	1		2	
Mean	0.2		1.5	

This question was poorly answered in both the pre- and the post-test in terms of high scores with only 11 (10%) students obtaining full marks. There was a large difference in the number of students who passed this question: 1 in the pre-test and 50 in the post-test. It has been noted in previous years, that questions concerning detail about specific sources are not well answered in a summative test. In the post-test, half the number of students scored zero, and the mode was zero. Eleven students managed full marks in the post-test but only 48% passed this question. Whilst students are exposed to and undertake practical exercises to do with the sources of law, there is insufficient time for reinforcement. Many students do not learn names but know that there is 'an encyclopedia' for law, or the 'maroon set'.

6.5.2.7. Journal literature

This question asked the students to explain the nature and purpose of an academic journal. The results are presented below.

Table 34: The nature and purpose of a journal. N=104

TESTS	Pre-test results	Post-test results
SCORE CHARACTERISTICS		
Lowest score for the question	0 49 students	0 3 students
Highest score for the question	4 4 students	4 6 students
Score frequencies		
0.00	49 students 47.1%	3 students 2.9%
1.00	37 students 35.6%	13 students 12.5%
2.00	10 students 9.6%	40 students 38.5%
2.50	0	1 students 1%
3.00	4 students 3.8%	41 students 39.4%
4.00	4 students 3.8%	6 students 5.8%
Total number and percentage of students who passed the question	18 17.3%	88 84.6%
Mode	0 (49 students)	3 (41 students)
Mean	0.8	2.33

The same range of scores occurred in both the pre- and post-test and there was very little difference in the number of students who scored the highest mark. Almost 50% of the class (49 students) however could not answer the question at all in the pre-test. The concept of journal literature has seemed to be difficult for students over the years. Four times the number of students passed this question in the post-test; 88 (84.6%) as opposed to 18 (17.3%) in the pre-test. The average mark in the post-test was almost three times that of the pre-test.

6.5.2.8. Databases

This question concerned the differences between two online databases.

Table 35: Comparing two databases. N=104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	86 students	0	11 students
Highest score for the question	4	1 student	5	4 students
Score frequencies				
0.00	86 students	82.7%	11 students	10.6%
1.00	13 students	12.5%	14 students	13.5%
2.00	3 students	2.9%	32 students	30.8%
3.00	1 student	1%	27 students	26%
4.00	1 student	1%	16 students	15.4%
5.00	0		4 students	3.8%
Total number and percentage of students who passed the question	5	4.8%	47	45%
Mode	0	(86 students)	2	(32 students)
Median	2.5		2.5	
Mean	0.2		2.07	

The results on the pre-test for this question support the answers in the questionnaire that students completed, that indicated that most students were unfamiliar with academic databases subscribed to by the library. Less than 50% of students however passed this question in the post-test which is of concern but supports the trend of this kind of question being poorly answered. The mode of 0 for 86 students in the pre-test and 2 for 32 students in the post-test is indicative of the poor responses. This low mode could be attributed to confusion over names of databases. Because of the nature of the publishing and subscription requirements, academic databases are identified by their names or platforms in contrast to the apparent seamlessness of

general Internet searching. Time constraints in the module do not allow for frequent reinforcement of the use of these databases which would improve familiarity.

Wilder²⁶ claims that teaching database names is a waste of time; librarians should rather devote more time to creating systems that are easier to use and eliminate the need for instruction. His claim about learning the names of databases was supported by the practical test in using databases where students had to identify the database to use to answer the question and many were unable to do so. Federated searching will facilitate multiple database searching by choosing a subject based group of databases rather than having to know names of individual databases. Federated searching was not available to students at the time of the study but is likely to be a feature only in academic libraries, not law firms.

6.5.2.9. Selection criteria

This question related to criteria used to make choices about which sources of information to select when a range of possibilities is available.

²⁶ S Wilder. "Information literacy all the wrong assumptions" (2005) Jan 7 *Chronicle of Higher Education* B13, 3.

Table 36: Criteria for selecting secondary sources

TESTS	Pre-test results	Post-test results
SCORE CHARACTERISTICS		
Lowest score for the question	0 97 students	0 3 students
Highest score for the question	2 2 students	4 4 students
Score frequencies		
0.00	97 students 93.5%	3 students 2.9%
1.00	5 students 4.8%	1 student 1%
2.00	2 students 1.9%	3 students 2.9%
3.00	0	20 students 19.2%
4.00	0	38 students 36.5%
Total number and percentage of students who passed the question	2 1.9%	61 students 58.6%
Mode	0 (97 students)	4 (38 students)
Median	1	2
Mean	0.086	2.1

The question was very poorly answered in the pre-test with only 2 students actually gaining a pass mark. Perhaps students have not consciously thought about how and why they use the material they do, unless they have not been presented with a range of alternative reading to consult. By the time of the post-test, the majority of students were able to recount evaluation criteria. Students scored quite well on the post-test given the average of 2.1 and mode of 4 as compared with 0.086 and 0 respectively. Evaluation criteria were continuously referred to during the various stages of the module, as well as being specifically dealt with as a section of a class. The pass rate in the post-test of 61 (58.6%) students is of concern given that it is ever more critical to be able to make informed choices about what sources to use given the ever increasing range of information available.

6.5.2.10. Abbreviations and acronyms

The published law literature makes widespread use of acronyms and abbreviations instead of long titles for journals and law report series. This question provided eight acronyms and asked students to give the names in fill.

Table 37: Abbreviations and acronyms. N = 104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	52 students	0	3 students
Highest score for the question	3	4 students	4	4 students
Score frequencies				
0.00	52 students	50%	3 students	2.9%
0.50	0		1 student	1%
1.00	36 students	34.6%	3 students	2.9%
1.50	0		20 students	19.2%
2.00	12 students	11.5%	38 students	36.5%
2.50	0		18 students	17.3%
3.00	4 students	3.8%	9 students	8.7%
3.50	0		7 students	6.7%
4.00	0		5 students	4.8%
Total number and percentage of students who passed the question	16	15.3%	77 students	74%
Mode	0	52 students	2	38 students
Median	2		2	
Mean	0.08		2.3	

There was a 61% difference in pass rate between the pre- and post-test with the mode and mean double and almost triple respectively. Law literature uses abbreviations and acronyms for titles of publications extensively and students simply have to become familiar with them, particularly key South African ones. Time within the module was spent looking at these and key South African ones. The author's

experience has shown that students are resistant to learning abbreviations, believing it far easier to ask the library staff to decipher these for them.

6.5.2.11. Printed indexes

The pre-and post-test asked about printed as well as online indexes. The question to do with printed indexes asked students to describe one of two named printed indexes.

Table 38: Describe a printed index. N = 104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	97 students	0	33 students
Highest score for the question	5	1 students	6	8 students
Score frequencies				
0.00	97 students	93.5%	33 students	31.7%
0.50	5 students	4.8%	0	
1.00	2 students	1.9%	11 students	10.6%
1.50	0		0	
2.00	0		17 students	16.3%
3.00	2 students	1.9%	9 students	8.7%
4.00	0		14 students	13.5%
5.00	1 student	.96%	12 students	11.5%
6.00	0		8 students	7.7%
Total number and percentage of students who passed the question	3	2.88%	43	41.3%
Mode	1	(33 students)	2	(17 students)
Median	2		2	
Mean	0.12		2.26	

Questions about indexes have always been poorly answered in the module in question. Printed indexes in the legal literature particularly law reports and statutes,

are complicated and there is generally little reinforcement of the practical exercises on the printed indexes. Whilst the average score on the post –test was still below a pass, it was considerably better than at the pre-test stage. More than two thirds of the students registered for the module managed to offer something by way of an answer in the post-test, compared with the 93.5% who could offer nothing by way of an answer in the pre-test. In total, 43 students passed this question in the post-test versus 3 in the pre-test. The average score was 18 times better in the post-test than the pre-test.

6.5.2.12. Referencing

Students were asked to list four differences between footnotes and a list of works cited.

Table 39: Difference between footnoting and list of works cited. N=104

TESTS	Pre-test results		Post-test results	
SCORE CHARACTERISTICS				
Lowest score for the question	0	45 students	0	6 students
Highest score for the question	4	2 students	4	43 students
Score frequencies				
0.00	45 students	43.3%	6 students	5.8%
0.50	1 student	1%	0	
1.00	26 students	25%	6 students	5.8%
1.5	0		0	
2.00	21 students	20.2%	17 students	16.3%
3.00	9 students	8.7%	32 students	30.8%
4.00	2 students	1.9%	43 students	41.3%
Total number and percentage of students who passed the question	32	30.76%	92	88.46%
Mode	0	(45 students)	4	(43 students)
Median	1.5		1.5	
Mean	0.99		2.96	

Whilst 45 students (43.3%) did not score on the pre-test and only two (1.9%) scored the maximum mark; on the post-test, only six students (5.8%) did not score on the post-test and 43 (41.3%) gained the maximum score. In the pre-test 32 students (30.76%) passed the question with 92 (88.46%) passing in the post-test. There was a large gap between the two modes and the post-test average was three times that of the pre-test indicating that the post-test scoring was significantly higher in all respects than the pre-test.. Students performed three times better on the post-test. Whilst footnoting appears in almost all law textbooks and most students who had taken Legal Studies in the first year should have encountered footnotes, it does not follow that footnotes are consciously observed and the use of footnoting for referencing is certainly not practiced. The section of the module on referencing, particularly footnoting was scaffolded so students could understand the nature of and use of footnotes in order to be able themselves to footnote and reference. Students had a worksheet asking them questions about the footnotes in the key article they had to read so as to highlight their awareness of the nature of footnotes. Students had practical exercises in referencing and had to reference the two main writing exercises and also were required to reference an essay for the criminal law course.

6.5.3. GENERAL CHARACTERISTICS OF THE PRE- AND POST-TEST

The test was marked out of a total of 56 marks with 28 marks, or 50% being considered the pass mark. The tables below presents a comparison of the overall pre- and post-test total scores as well as paired samples statistics, correlations and paired samples test.

Table 40: Overall comparison of pre- and post-test results. N=104

TESTS	Pre- test results	Post-test results
SCORE CHARACTERISTICS		
Total score range	5 – 31 (range of 26)	17 – 50.5 (range of 33.5)
Number of passes	2 (2%)	79 (75.9%)
Number of failures	102 (98%)	25 (24.1%)
Average score	5.6 (10%)	33.58 (59.9%)
Median	14	33
Mode	12; 15	29
Score totals in percentiles		
0 – 10% (0 – 5.5)	1	0
11 – 20% (5.6 – 11.2)	17	0
21 – 30% (11.3 – 16.8)	50	0
31 – 40% (16.9 – 22.4)	30	10
41 – 50% (22.5 – 28)	4	18 (3 students @ 50%)
51 – 60% (28.1 – 33.6)	2	28 (4 students @ 60%)
61 – 70% (33.7 – 39.2)	0	20
71 – 80% (39.3 – 44.8)	0	17
81 – 90% (44.9 – 50.4)	0	10
91 – 100% (50.5 – 56)	0	1

Clearly, there was a marked improvement in performance between the pre- and the post-test, with the number of passes between pre-test and post-test being 2 and 79 respectively, with 50% of the class obtaining a mark of 60% and higher in the post-test. This improvement suggests that the intervention of the LRWR module benefited the students. It has to be borne in mind that whilst students had no prior warning of the pre-test they were able to study for the post-test as it was timetabled, although they were not told it was a post-test. It is also accepted that marking exactly the same way is not guaranteed, despite model answers, when there is time distance between the two tests. The average score improved almost six fold in the post-test; the median reflected an improvement of 2.4 times and the mode reflected an improvement of more than double. The range of scores was greater for the post-test.

T-tests are generally used to indicate whether there is a significant difference between the means of two sets of data. The paired samples t-test is used in those situations where responses from the same individuals are subject to repeated measurement.²⁷ The hypothesis was that the Legal Research Writing and Reasoning module, taught and learned from within an information literacy paradigm, in terms of an active learning approach, would improve the legal research skills of second year undergraduate students. The null hypothesis was that the intervention of the module, taught and learned from within an information literacy paradigm, in terms of an active learning approach, would not improve the legal research skills of second year undergraduate students. A paired sample t-test was run using SPSS.

Table 41: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest total	6.9423	104	2.02809	.19887
	Posttest total	10.9904	104	1.11908	.10973

²⁷ RL Miller ... et al. *SPSS for social scientists* (2002) 124-126.

Table 41 presents the paired – samples statistics for both the pre-and the post-test. The pre-test total mean was 6.9 whilst the post-test total mean was 10.9. Thus there was significant mean improvement between the pre-test and the post-test.

Table 42: Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Pretest total & Posttest total	104	.235	.016

Table 42 presents the data in terms of the extent to which the two variables are correlated. Presuming the p or risk value to be p less than 0.05, the second box indicates a positive but fairly weak correlation between the two variables as is to be expected.

Table 43: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		Mean	Std. Deviation	Std. Error Mean
Pair 1	Pretest total - Posttest total	-4.04808	2.07332	.20331	-4.45129	-3.64487	-19.911	103	.000

Table 43 shows the findings as a result of the paired t-test. The mean difference between the pre-test and post-test totals is -4 and the t-test indicates that this difference is highly significant, where p is less than 0.05. Thus the hypothesis that the intervention of the Legal Research Writing and Reasoning module, designed and presented from an active learning perspective, would make a positive impact on the skills and knowledge of the students registered for the module was confirmed.

6.5.4. SUMMARY

The results of the pre- and post-test indicated that overall, students performed far better in the post-test than in the pre-test with 2 students passing the pre-test and 79 passing the post-test. In the pre-test 102 students failed to pass whilst 25 failed the post-test. The average score in the post-test was 33 as opposed to 6.6 in the pre-test. The average mean for the pre-test was 6.9 and 10.9 on the post-test. The results in the post-test were statistically significantly higher than on the pre-test. Whilst 69 students scored below 30% in the pre-test, no student scored below 30% in the post-test. In the post-test 50 out of the 79 students who passed scored a mark of 60% or more.

6.6. REFLECTION EXERCISE (see Appendix six)

6.6.1. INTRODUCTION

The active learning and constructivist approaches to learning and teaching in particular, advocate the inherent role of reflection. There are various types of reflection: 'reflection-in-action' which is reflecting whilst doing; and 'reflection-on-action' which is reflecting on one's performance after the event. Vital to knowledge construction and learning is the activity of assessing what one is doing, why and how one is doing and explaining strategies used.²⁸ Active learning has three components: getting information and ideas, 'doing experiences' and reflection.²⁹ Reflection exercises can take many forms and happen at different times during learning episodes and can be undertaken individually or collectively. It could be argued that problem-solving, especially where several outcomes are possible, necessitates reflection. Not all activities require reflection, much of what one does or what happens, called knowing-in-action³⁰ routinely does not require reflection. Often though, dealing with the unknown, or an unexpected outcome or problem in the midst of action may require both reflection-in-action and reflection-on-action. Reflection is a critical thinking activity and helps internalise performance and enhances construction and application of knowledge.³¹

During the LRWR module, much reflection-in-action took place as a class exercise at the end of a class so that all students could benefit from the process. Some of the worksheets included reflection type questions so that students had to reflect on their own opinions not just mechanically answer questions about the topic. Some reflection work was undertaken in groups. Mid way through the module, over the short Easter vacation, the students were asked to undertake a reflection exercise in their own time. The purpose of this exercise was for the students to reflect on the process so far, as well as on their own learning, a reflection-on-action. The author observed that students appeared to have not undertaken reflection exercises before

²⁸ D Jonassen. Designing constructivist learning environments. In: CM Reigeluth. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 231; DL Fink. *Creating significant learning experiences: an integrated approach to designing college courses* (2003) 106-110.

²⁹ DL Fink. *Creating significant learning experiences: an integrated approach to designing college courses* (2003) 106-107.

³⁰ DA Schon. *Educating the reflective practitioner*. (1987) 25.

³¹ DA Schon. *Educating the reflective practitioner*. (1987) 22- 40, 113-117.

and were skeptical. This author has observed that for a variety of real and practical reasons, many students appear to see lectures as discrete lessons to be forgotten about until the next lesson. This lack of connectivity affects the flow of the process and development of ideas so reflection activities are also seen as one way of creating some connectivity.

6.6.2. REFLECTION EXERCISE RESPONSES

Students presumed the reflection exercise was in fact an evaluation of the module which the author was at pains to point out was not the case, rather they needed to think about what they had learned and done. Hence the reflection exercise was couched in the following terms:

Dealing with any legal problem involves not only a number of steps and / or activities but particular ways of thinking and reasoning at each step and about the problem as a whole. What have you personally learnt about these processes to date during the module – if anything – in terms of the nature of thinking and reasoning, difficulties and so on. Draw on the reading and writing exercises and discussions and practicals you have done to date. Be specific and give examples. Please indicate where you have experienced problems in particular.

The responses were read and analysed and grouped into broad subject categories. Some responses fell into more than one category. Of the 136 (at that stage who were in the class) students who completed the exercise, 89 (65.4%) provided useful insights and comments and made an effort to answer thoughtfully. The other students simply listed the steps in the process or what aspects had been covered to date with no personal comment at all. Some wrote a single paragraph which provided no useful information. Many did in fact comment on the module rather than specifically answer the question. This information is useful for module development in terms of identifying difficulties but also providing insight into how students were viewing the process, engaging with it and learning from it. The responses from the 89 who did more than simply list the steps, are dealt with below. The aspects most commonly highlighted, in decreasing order of number of comments, were sources of information, practical exercises, problem-solving, reading and writing and referencing. There were

comments about the processes of the module itself as well as difficulties and suggestions.

6.6.2.1. Sources of information (205 comments).

There were 225 references to the sources of information in total, in terms of a mere acknowledgement of actual kinds of sources and / or the process and 205 comments on the sources of information. The comments expressed an insight or an opinion as opposed to students simply listing the sources without any comment. Most of the 205 comments listed below are actual quotations from students that best summed up the total of comments of the same nature.

- 'I now realize what a large range of sources of information are available' (18 respondents)
- 'I now know how to use the law library' (4 respondents)
- 'I now know how to find and use the tools for finding information' (6 respondents)
- 'I now know how to access information' (18 respondents)
- 'as a result of the module law books are now not so daunting' (4 respondents)
- 'now I can distinguish between law reports, journals etc'
- 'I had difficulties understanding the differences between law reports and statutes, now I know the difference' (7 respondents)
- 'I have learned about law reports and statutes' (6 respondents)
- 'learning about journals has been interesting particularly finding them in the journals room' (12 respondents)
- 'I know about electronic journals' (3 respondents)
- 'indexes are complicated and we need more practice' (10 respondents)
- 'I am amazed at the organisation of information in the various sources'
- I have enjoyed learning about the different types of literature
- 'I particularly enjoyed learning about the e resources of Jutastat and Butterworths' (50 respondents)
- 'I can now distinguish between primary and secondary sources and know when to use them' (44 respondents)

- ‘precedent’ (4 respondents)
- ‘one source leads to another’ (4 respondents)
- ‘I used to have a problem finding a starting point; and identifying what to use and when, but now I know how to identify a starting point’ (for finding information) (16 respondents)
- ‘before this module I didn’t know how to go about finding information, now I know / search strategy’ (5 respondents)
- ‘there needs to be more discussion about the sources’

The number of comments indicated to some degree the impact of being exposed to the range of, arrangement, access to and finding of sources of information. Most comments indicated acquisition of knowledge about the range of sources of information generally and in terms of specific sources; how to access and the accessibility of information sources and the law library; the differences between different sources. Some comments indicated that the role of information sources in designing and following through a search strategy had made an impact on students.

6.6.2.2. Practical exercises and tutorials (191 comments covering different aspects).

Below are presented the comments concerning practical exercises and tutorials. Some of the responses listed are actual quotations which sum up the nature of a cluster of similar comments.

- general references to learning about sources in practicals (76 respondents)
- practicals were useful / enlightening (32 respondents)
- practicals were too long (3 respondents)
- ‘practicals helped us find information’ (5 respondents)
- ‘practicals helped me feel more at ease about legal research’
- ‘electronic resources were enjoyable’ (50 respondents)
- ‘I didn’t realize there was information beyond Google and Yahoo’ (2 respondents)
- learned about electronic journals
- needed more time for exercises (5 respondents)

- 'now know how to research in the library' (3 respondents)
- 'tuts too fast and too much information' (2 respondents)
- need more exercises on indexes (10 respondents)
- 'I had no idea there was so much research to do'

The comments on the practical exercises were largely aligned to the sources of law. This was probably because most of the timetabled practicals dealt with the sources of law so students may not have viewed other practical exercises in the same light.

6.6.2.3. Problem - solving from a legal perspective (69 comments)

Not surprisingly, given the emphasis on problem-solving as the core of the module, some 136 (100%) responses made reference to the problem solving process, although only 69 (50.7%) students commented rather than merely referred to problem-solving. Generally responses referred to two aspects, namely; thinking and the process, although these overlap. Below are listed a selection of the responses.

6.6.2.3.1. Thinking (69 comments)

The comments below are nearly all direct quotations which reflect the nature of all comments made on a particular aspect of thinking.

- 'need to think from all angles and cover all possibilities when tackling a problem' (18 respondents)
- 'be careful not to draw conclusions too early' (5 respondents)
- important to analyse a situation and information carefully before answering (11 respondents)
- 'there are always two sides to a story' (4 respondents)
- 'need to think laterally' (5 respondents)
- 'every problem is unique' (3 respondents)
- 'need to read a question properly and carefully' (2 respondents)
- 'be careful of one's personal beliefs, emotions; need to be objective, not jump to conclusions. Look at what the law says' (8 respondents)
- 'thinking is important' (6 respondents)

- importance of arguing a point of view; need to think outside the box (7 respondents).

6.6.2.3.2. Process (96 comments)

Some 96 comments referred to the process within the LRWR module. Those actual quotations given reflect the nature of the cluster of comments given on that aspect of process.

- reference to FIRAC (23 respondents)
- ‘problem solving is a process’ (18 respondents)
- ‘problem solving is systematic’ (4 respondents)
- ‘there are lots of different ways to approach a problem’ (7 respondents)
- ‘instead of panicking there is a process; I now have confidence to tackle a problem’ (7 respondents)
- ‘there is no single correct solution to a problem’ (7 respondents)
- ‘need to construct argument’ (9 respondents)
- ‘need to produce well argued solutions’ (10 respondents)
- ‘it is important to evaluate sources used’ (6 respondents)
- ‘I have learnt about the importance of the application of the law to the facts at hand’ (4 respondents)
- ‘I have difficulty putting it all together.’

In terms of thinking and the problem-solving process, the types of comments provided above indicated the acknowledgement of the dimensions of thinking in terms of problem-solving in law. Thinking needed to incorporate consideration of a range of viewpoints and evidence, and was developmental in terms of considering the problem at hand and evidence to support solutions. Comments in terms of the process with respect to problem-solving indicated the acknowledgement of problem-solving as a process in which there are various approaches and dimensions.

6.6.2.4. Reading and writing (81 comments).

There were 21 comments about reading and 60 comments about writing in total.

6.6.2.4.1. Reading (21 comments)

All the quotations listed below are reflective of the nature of all similar comments on that aspect.

- 'I now realise the importance of reading' (3 respondents)
- 'in depth reading is needed' (2 respondents)
- 'there is a technique to reading such as looking at headings'
- 'how different from school is reading at university' (2 respondents)
- 'academic reading is difficult'
- 'reading helps to see different points of view'
- 'you can't read at face value' (3 respondents)
- 'there is reading and then there is reading' (2 respondents)
- 'law is not about facts but comprehension'
- 'terminology used is difficult' (3 respondents)
- 'reading is daunting especially the long passages' (2 respondents)

6.6.2.4.2. Writing (33 comments)

The quotations below reflect the nature of all the comments on an aspect:

- 'reading and writing exercises allowed us to actually put ourselves in a particular situation; this helps us to visualise and this helps us to analyse as a professional not just as students'
- 'deciding what to include and what to leave out is a problem' (6 respondents)
- 'research is imperative for good writing'
- 'the writing practice has been good' (4 respondents)
- 'coming from a good secondary school I thought I had little to learn about searching, reading and writing; I now realise how much I don't know. First year taught me very little about these things'
- 'Prior to LRWR I used to answer questions for the sake of doing so; not as an opportunity to apply my mind and expressing it in writing and having to actually argue'
- 'I have learnt different ways of writing' (7 respondents)
- 'language is a problem when writing' (7 respondents)
- 'I have come to realise how different writing in law is' (5 respondents).

6.6.2.4.3. Summarising (five comments)

- 'I have learnt how to summarise'
- 'summarising is more difficult than anticipated'
- 'I need to learn more about how to summarise'
- 'summarising is challenging'
- 'summarising is more than skin deep.'

6.6.2.4.4. Legal opinion (5 comments)

At the stage of the reflection exercise the final opinion had not yet been handed in.

- 'doing the opinion was an invaluable lesson'
- 'doing the opinion has helped me see the need to produce a well argued solution'
- 'doing the opinion was interesting'
- 'we need more examples of how to do an opinion'
- 'I have difficulty deciding at what point do I actually express an opinion'

The comments on reading and writing were, for some students, challenging activities about which they had gained insight during the module. Specific writing activities mentioned were summarising and the opinion. Other written exercises were not referred to. Some students acknowledged the interrelationship between reading, writing and research.

6.6.2.5. Referencing and footnoting (20 comments)

- 'needs more input'
- 'I didn't know the difference between footnoting and other kinds of referencing' (12 respondents)
- 'need more exercises'
- 'footnoting is difficult' (6 respondents).

6.6.2.6. General, assessment, notes (30 comments)

- 'I enjoy the continuous assessment' (5 respondents)

- 'the exercises are useful to see how I am doing' (3 respondents)
- 'we are constantly working so we don't forget'
- 'way in which the course is run is a refreshing deviation'
- 'the examples help put theory into practice' (6 respondents)
- 'notes are useful' (4 respondents)
- 'this module has helped with other courses and assignments and my degree as a whole' (10 respondents).

6.6.2.7. Group work (19 comments)

- 'enjoying group work and discussion' (15 respondents)
- 'enjoyed working with others'
- 'enjoyed hearing other ideas'
- 'discussion teaches us to work as a team'
- 'liked working together in tutorials.'

6.6.2.8. Guest lectures (7 comments)

- 'helped understand how to apply theory in practice' (6 respondents)
- 'interesting.'

6.6.2.9. Research process (15 comments)

- 'its all about research, research and more research' (10 respondents)
- 'I had no idea there was so much to research' (3 respondents)
- 'I now understand the nature and purpose of legal research'
- 'now I can apply the research process.'

6.6.2.10. Other comments

- 'the topic is interesting' (6 respondents).

All the general comments about the module were positive which may indicate that the learning experience so far in the form of the module had appealed at least to a segment of the students. References to the module notes, group work and guest

lectures may be indicative of the different learning styles as well as appreciation of the variety of teaching and learning activities.

6.6.2.11. Difficulties and suggestions made (38 comments)

- put the module into first year
- module is too early in the year
- need a refresher later to remind us as there's so much to learn
- need more discussion about sources
- want diversity of topics
- problem with application of FIRAC
- practicals too long (3 respondents)
- need more time for exercises (5 respondents)
- had problems finding information (5 respondents)
- module tedious (2 respondents)
- footnoting difficult (6 respondents)
- teaching referencing is not necessary
- problem deciding which sources to use when (2 respondents)
- difficulty researching cases
- problems finding journals (2 respondents)
- need examples of opinions
- struggle with indexes (4 respondents).

The comments regarding difficulties and suggestions are indicative of the range of learners in terms of interest, pace and perhaps degree of mastery of legal research knowledge, within the class. For some the module appealed, for a few it was tedious including the use of one topic only. The comments regarding difficulties with finding and using resources was probably partly to do with the failure of students in a tutorial to replace used material correctly, making it difficult for subsequent students to find sources. The comments could also indicate that more time and scaffolding was necessary with regard to these areas of activity.

6.6.3. SUMMARY

The reflection exercise indicated that more than half of the class had reflected thoughtfully on the processes and activities within the module up to the point of the exercise and the comments covered a wide range of aspects of the module content and in particular the processes and activities. Probably most comments dealt with actual 'doing' in the module rather than knowing. Most of the comments on content reflected knowledge of sources of information and referencing. Comment on the topic content tended to be couched in terms of the thinking, reading and writing processes involved in dealing with the nature of the topic. There was a range of insights into process with regard to problem-solving generally, the associated aspects of thinking skills and reading and writing. Much attention was given to finding and accessing the sources of law within the designated practical times and the knowledge and skills gained through these. Many comments reflected specifics of the challenges associated with aspects of the process such as reading and writing and the varying degrees of difficulty experienced. Some comments noted a positive response to the variety of teaching and learning activities within the module. Overall, the reflection exercise appeared to indicate that most students were responding positively to the process and that development needed to be in terms of the specifics of the module such as reading, writing, locating sources and referencing.

6.7. FOCUS GROUPS (see Appendix seven)

6.7.1. INTRODUCTION

The focus group method was chosen to explore students' experiences of the active learning approach adopted for the module. The focus groups took place at the end of the module. This method was identified as the best possible way of exploring in-depth, the attitudes, opinions and perceptions of the students. Focus group interviews have been described as 'a particularly appropriate procedure to use when the goal is to explain how people regard an experience, idea or event'.³² Focus groups are most advantageous when the group interaction is best suited to yielding needed information and interviewees are similar.³³ 'The intent of the focus group is to promote self-disclosure among participants.'³⁴ The need for participants for the focus groups was advertised during practical classes and students were asked to sign up for any of the three groups. The focus group meetings were held in an office in the law school during the day and scheduled so as to take cognisance of the students' timetables and to be as convenient as possible for students in terms of time and location. The groups comprised six students each and lasted for a period of one-and-a-quarter hours. Students were paid a small sum for participating. Participants represented all race groups and both genders.

6.7.2. FOCUS GROUP RESPONSES

By way of introduction the students were each asked to say their names for the benefit of the group and what degree they were registered for and their subjects of study that semester, in order to establish a sense of common ground as most were registered for the same modules. The students were familiar with each other from class but did not all know each other well. The author then went on to remind them of the common experience of the Legal Research module and explained the active learning approach and why it had been adopted.

This reminder led into the introductory question of 'did you feel that the multi – method and active learning approach was useful and helpful in the Legal Research

³² RA Krueger. *Focus groups: a practical guide for applied research*. 2nd ed. (1994) 8.

³³ JW Creswell. *Qualitative inquiry and research design: choosing among five approaches*. (1995) 133.

³⁴ RA Krueger. *Focus groups: a practical guide for applied research*. 2nd ed. (1994) 11; L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 288.

module and if so how?’ The transition question came next where the following was put to the participants: ‘In the questionnaire at the beginning of the year, the question was asked as to what would you like to see more of, if time permitted. The range of answers included worksheets, debate, discussion, more examples, group work. All of these were acknowledged. Many of these activities are part of an active learning approach. Do you feel that the Legal Research module successfully reflected an integration of these activities?’

After this, the more specific core questions were posed, the content of some already having been touched on in the responses to the first question. These questions were as follows:

- what do you think of the theory and practical combination in the module?
cues – we did practical exercises in the classroom; practicals in electronic resources; formal input on content such as the difference between primary and secondary sources; discussion etc
- do you think that the group work and class discussions were useful and appropriate?
- what do you think about the use of a single topic as the basis on which to build theoretical and practical knowledge and skills of research, writing and reasoning?
cues – approach from a range of angles, discover different opinions, build an answer
- what do you think about the methods of assessment?
cues – worksheets, practical exercises, opinion; scaffolding etc
- what would you change in the module based on your experience?
cues – practicals, more written work and so on
- by way of summary we have looked at the approach taken in the Legal Research module in terms of the use of a single topic; a range of teaching and learning methods such as discussion, group work, work sheets, written assignments etc; the balance between theory and practice and assessment. Have you anything else to add or comment upon in terms of your experience?

Moderators or interviewers need to be careful to facilitate, not dominate the focus groups, while being aware of his/her own responses. Allowance should be made for pauses and further probing while ensuring that the groups are at ease; It is necessary to be prepared for the unexpected as well as for the different personality types in the respondents.³⁵ This author followed these guidelines.

Immediately after each focus group, the author wrote up notes in conjunction with the recording on tape. The analysis of focus group results can be complex because of the vast range of possible responses. The analysis must be systematic and remain focused on the purpose. The author was careful to capture all comment and then analyse comment with respect to the immediate question and the overall purpose of the focus groups.

6.7.2.1. Multi-method approach and active learning

The participants were then asked for their views about the multi-method and active learning approach and whether they regarded it as useful and helpful in the Legal Research module. By way of background it was explained to the participants what active learning was and why this approach had been experimented with.

Participants from all focus groups were unanimous that the multi-method and active learning approach was useful and helpful and different. In each group there was a respondent who initiated discussion and each respondent thereafter supported what had been said or offered new additional information. Group one indicated that the approach was an interesting deviation from the usual pattern and the approach kept them thinking and involved whereas the usual lecture method was often boring. Responses from Group two acknowledged that the multi-method approach provided a chance to work in different ways. Discussion largely elaborated on this and the participants indicated that it was useful to have discussion as one of the options as it meant being able to have and express an opinion but also written exercises meant having to express opinions in different ways. They thought it was beneficial to have had to be actively involved as it meant they had to actively think about the topics and

³⁵ RA Krueger. *Focus groups: a practical guide for applied research*. 2nd ed. (1994) 104-121.

think critically about their arguments. Group three indicated that the approach was useful as it meant not just reading and writing but discussing as well. Two students said it kept them alert at a difficult time of the day when they were getting tired. Another two students said that as non-LLB students, the approach helped them appreciate the way of thinking in the study of law. One student in Group two said that the approach added a new dimension to learning and made the experience of solving a problem more real. This was met with agreement from the rest of the group.

The responses appear to indicate that the students found the active learning and multi-method approach required them to be more involved and a challenge to think and work in a range of ways and was more interesting than the traditional lecture approach.

6.7.2.2. Extra activities the students would have liked to have in the module, time permitting

In the questionnaire at the beginning of the module, the question had been asked as to what activities students would have liked to see more of, if time permitted. The range of answers included worksheets, debate, discussion, more examples, group work etc. All of these were acknowledged. In the focus groups the participants were asked if they felt that the Legal Research module successfully integrated these activities and what they would have liked more of if it was feasible. This question was closely aligned to the following question about what activities the students would change in the module based on their experiences over the past semester.

Group one indicated that they thought the mix of activities was 'ok' for this module and the only thing they would like more of was practical exercises particularly with using indexes and the printed sources with more practice with electronic resources. Two students said the worksheets reinforced the theory whilst another said that the exercises (worksheets and other written work) made them work more systematically and think about the topic. Three participants in Group two said they thought there was room for more practical work and more debate versus group discussion where the topic was controversial in order 'to solidify opinion before embarking on written work'. Group three indicated nothing should have been left out but that there could perhaps

have been a few less exercises. They referred specifically to the footnoting and referencing exercises.

Discussion ensued in this group as to whether the LRWR module was the place for more formal oral presentation by the class so as to develop public speaking skills. One student thought that 'we need to learn how to be seen as a professional ... in terms of how we talk to people and present argument'. Four in the group indicated that at this stage of their degree it was more important to know about finding information and developing writing skills. Groups two and three indicated that the different methods were well integrated and served different purposes at different times. Two students in Group two indicated that the different kinds of exercises meant they had to think and work differently and kept their interest. Three students in Group three remembered the pre-test and thought it would have been useful to get this back or to have been given notes so as to have a better sense of where they stood at the beginning of the course.

It would appear from the responses that the students generally thought that there had been a good mix of activities in the module.

6.7.2.3. The combination of theory and practical in the module

All groups said that the combination of practical and theory was essential for a module such as LRWR. The response of Group two included comments such as other modules being given the theory but with insufficient opportunity to put it into practice in a real way. However in the LRWR module, the use of the newspaper article enabled them to put theoretical knowledge into practice. The practical side provided them with the opportunity to *do*, rather than merely be shown or told. Two students said that the practical work reinforced how to determine a starting point and where to go to find information. Students in each group said that the theory and practical work enabled them to think about where to go for information for other courses. All groups felt there was a need for more practical work although the combination of theory and practical was good. Group two said they enjoyed the theory/practical combination as it provided opportunity to work through aspects of the

process and get help when they got stuck (this was made with particular reference to practical exercises to be completed during practical sessions on the sources of law).

The discussion about the theory and practical combination did move into the nature of the practical work. Groups one and three indicated that there needed to be more practical work with regard to finding and using sources of information, the printed ones in particular. Group three debated the need to use printed sources at all but one student indicated the reality of working for small firms with no access to electronic resources or the possibility of power outages necessitating knowledge and use of the printed sources. Groups one and three thought that the beginning practicals were too rushed and too much information was provided and not enough time to reinforce what had been learned. One student in Group three indicated that there was nothing to stop them going over practical work in their own time whilst another said the notes were a useful backup that enabled them to work through practical work on their own.

All groups expressed a preference for electronic resources, saying electronic information was easier to find especially when local databases contained a range of sources so searching could be from one place. Group one participants said they found the use of indexes particularly complicated and the practical time was too short to fully come to grips with indexes. They concurred that having the lecturer available to help with practicals was useful for explaining difficulties and assisting as they encountered difficulties. One member of Group three mentioned this. Two Group three participants thought that the practicals were not aligned with the class work. Another indicated that as the practicals were largely about the sources of information, it did not really matter when they occurred. Another participant from this group suggested that it should be explained to the class that the practicals were not necessarily going to work in tandem with class work.

The group feedback generally indicated that a mix of theory and practical was necessary and practical work was necessary to reinforce the theory. A module such as LRWR needed to be practical and the sources of information did require a hands-on approach in order to get to grips with them. Students expressed a preference for electronic information. It would appear that some developmental work needed to take

place with respect to practical work in terms of the amount of input from the lecturer, the length of a practical period and guided reinforcement. Dealing with printed sources remains a problem because of class sizes and lack of multiple copies of them for teaching purposes. It appeared from the group discussions that practicals with printed sources were problematic for some students but that the mix of theory and practical was necessary and had been useful. Alignment between practical work and theory needed some attention.

6.7.2.4. Usefulness and appropriateness of group work and class discussion

All three groups were unanimous in their approval of class discussion and group work. The majority of students in the three groups said that group work made them feel involved and pay attention to the topic and think about what they were working on. Group 1 indicated that class discussion and debate were really enjoyable.

Comments included:

- class discussion being interesting and holding interest
- providing the opportunity to hear other people's opinions, a lot was learnt from interacting with others
- discussion added depth to the experience
- it was useful having the lecturer there to bounce ideas off and ask questions of.

Four of the group said working in pairs and small groups was preferred; large class discussions were irritating when chatting took place whilst discussion was happening. In Group three, the group was unanimous in its agreement that class discussion and group work had been interesting in terms of listening to the opinions of others and the interactive nature of the module. They enjoyed the availability of an open forum to discuss the topic and ideas. This group was particularly interested in the class discussion and group work aspect. The students in this group happened to all be quite confident students and hard workers and took their work seriously. Two students said they felt the discussion was useful because 'different things came out of discussion that didn't come out of reading and writing.' Two students said they had learnt from the discussion that 'it is important to have an opinion otherwise you can't

argue'. Two others said that discussion meant you had to think before you spoke. Two said that discussion had shown them that they needed to be flexible in their ideas and in expressing them. Two said that some discussion was intimidating because the opinions of the class were so strong.

Focus Group one was made up of quieter students. They agreed that the discussion and group work was useful and interesting for being exposed to other opinions and for being able to understand why people had the opinions they did. They said they preferred small group work or working in pairs with fellow students they knew or were friends with as it did not take them out of their comfort zones. They thought that the topic was quite personal and they did not feel confident enough to discuss their feelings with strangers. They said they felt most comfortable discussing with their friends, and sometimes they learnt things about their friends they did not know. They said they appreciated the fact that there was flexibility to work either in pairs or small groups. They also said it was useful to have the lecturer circulating so they could ask questions or be challenged by a question and they appreciated the 'lecturer being part of the discussions and group work not just being at the front of the room watching.'

With regard to working in pairs and groups, three students in Group three said they did not like working in pairs as it was not sufficiently fulfilling as it did not provide enough viewpoints. It allowed one to stay in a comfort zone whereas a larger group meant you were more challenged. They said they usually sat in the same place (most students appeared to sit in the same or similar place). They said four to six was the best size as the group was then big enough to reflect a range of opinions but not too big 'to lose yourself' meaning you did not get a chance to usefully share, and there was opportunity for all to discuss and get feedback. Group two also said group work was a good way of getting to know classmates as 'sometimes in final year, when partnered for Moots, you don't know the person you are partnered with at all.'

In terms of the time when students were asked in class to move and discuss with someone of another gender or culture it had been noted by the lecturer that many students were reluctant to do this. When asked about this Groups one and two said

they were just uncomfortable with this mainly because they had not done this sort of thing before and were not used to sharing ideas with people they didn't know well although they saw the benefit of such. Students in Group three said they just didn't want to move out of their comfort zones.

The last guest lecturer who presented the human rights stance on corporal punishment and how the law was evolving in this manner had opened the floor for discussion. Unfortunately one individual who had been very vocal throughout the module continued to be very vocal and kept interrupting other students. The author acknowledges that this debate could have been managed better. The guest lecturer had not been concerned by the opposition to her anti-corporal punishment stance and usually challenged each comment with a question asking the class to motivate for their response or presenting an alternative. It had not been possible to find someone to present the counter argument or pro-corporal punishment argument, but the author felt this had been adequately covered in class. What was notable about this lecture, is the intensity of pro-corporal punishment feeling, when earlier in the module, the majority of students had felt the headmaster should be punished severely. The guest lecture had focused on corporal punishment by parents and corporal punishment in any context.

In the focus groups, all students indicated that they thought the vocal student had been grandstanding and her contribution was not productive. All groups felt the input had been interesting and provided another dimension to the information they needed for the final assignment on whether South African parents should be allowed to smack their children. Seven students in total acknowledged that the guest lecture had raised discomfort levels as they now had to try to justify their own opinion on the topic. Nine of the eighteen students in the three focus groups suggested that more debate would have been 'nice' as it provided interest and food for thought, broadened perspectives and as one student said 'it (debate and discussion) is important to solidify your opinion before putting ideas into writing'.

The feedback on the use of class discussion and group work indicated that students found it a positive experience as it added another dimension to their learning, made

them think about their views and those of others and the need to be able to argue a view, and got them actively involved in their work. There was a range of opinion about the size of groups and working in pairs and it would appear that allowing flexibility in how students worked was necessary. Group work perhaps needed to be more structured to ensure students could make the most of these times.

6.7.2.5. The use of a single topic as the basis on which to build theoretical and practical knowledge and skills of research, writing and reasoning

Group one was divided in its opinion as to whether the use of a single topic was appropriate. One student said focusing on one topic was boring although the topic itself was interesting and there should have been lots of topics. Another said perhaps two or three topics would have been better. The rest of the group agreed it had been interesting to deal with one topic in depth when so many other courses covered such a wide spectrum of information and that they would never forget what corporal punishment was all about, having dealt with it so thoroughly. They indicated it had been 'interesting to consider a single topic from so many angles: 'we really had to think, and being made to argue in particular ways was challenging.' One student said they 'could identify with the topic which made it interesting and I didn't know there was so much to the topic.'

Group two had the most to say about the use of a single topic. It was articulated that:

- 'it was more enjoyable having a set topic and working from one point to an ultimate goal and being able to have our own opinion as well as finding sources of information on the topic'
- 'one topic set a final goal to work towards and gave us the opportunity to build up an answer'
- 'using one topic meant that everything linked up to the final essay and we learnt a lot more about how to research a topic from different angles'
- '[one topic] gave us a sense of a beginning and an end.'

One student said they thought the use of one topic was tedious and two might have been better.

Group three thought that the use of one topic was interesting because of the depth with which the topic was dealt with. This was evident in the following comments:

- ‘we had no idea there could be so much to find out about a topic from a mere newspaper article’
- ‘it was interesting how much information came out of all the different sources of that one topic’
- ‘we saw how the same principles are used to find information no matter what angle we were looking at’
- ‘my understanding about how to approach a problem has changed although my personal view on the topic has not really changed’
- ‘one topic was a bit of an overkill although I understand why this approach was taken.... it was good to learn how to develop an opinion from so many perspectives’
- ‘we had to really think because of all the different perspectives we needed to develop opinions on; developing an opinion is such a useful skill’
- ‘despite all the information we gathered on the topic the last assignment on the topic was really hard because it was difficult to argue and we now knew we had to substantiate argument’
- ‘towards the end, the assignments [worksheets and classwork] got a bit tedious and repetitive, such as footnoting, as these were reinforced in the large assignments.’

The majority of students indicated that the use of one topic was interesting because it provided the opportunity to deal with a topic in-depth and from many angles and build up a complete picture. It would appear from the responses that this approach challenged students in terms of deep thinking and reinforced the ‘enduring understandings’ of problem solving and provided a developmental approach to a holistic view of the problem solving process.

6.7.2.6. Methods of assessment that were used for the module

All participants said they liked the continuous assessment aspect of the range of methods throughout the module. Reasons given included the following:

(direct quotations from students)

- 'it means our progress is not dependent on test marks'
- 'when there is only one or two tests there is no opportunity to improve or learn from mistakes'
- 'continuous assessment means you know what and how you've done'
- 'different methods [of assessment] meant that we had to work differently and try new things and could see ourselves differently'
- 'the reinforcement provided by all the exercises was good'
- 'the succession of assignments helped me to retain what I was learning'
- 'it was less stressful having continuous assessment'
- 'feedback is critical'
- 'reinforcement is so useful to get a sense of how we are doing and the opportunity to redo assignments when we hadn't done well was so useful'
- 'I enjoyed the mixture as it helped see how things fitted together'
- 'the range of assignments made the course more interesting'
- 'worksheets done in pairs or groups was a fun way to learn and exchange ideas'
- 'different ways of doing things meant we had to think differently'
- 'it was challenging to try so many ways of doing the work, and they all fitted together.'

Individuals in Groups two and three indicated that towards the end of the module some of the exercises became repetitive and some of the smaller ones were perhaps not as necessary as they were covered by the bigger exercises. Footnoting exercises were specifically named when the big written assignments namely opinion and essay required extensive referencing. Some of the participants, particularly those in Group two, thought that they already knew how to do things like summarise so these exercises were laborious and repetitive. In Group three, one individual thought that the referencing exercises were too repetitive but said he appreciated the usefulness of reinforcement. His words were that perhaps 'with some topics there was assignment overkill'.

The majority of students appreciated continuous assessment and preferred the range of assessment opportunities as they said it made them work differently and provided interest and challenge.

6.7.3. SUMMARY

Overall, the focus groups indicated that the active learning approach with its diversity of teaching and learning methods had been stimulating, interesting and challenging in terms of the ways students had had to work and approach a problem and solve it. It provided an interesting deviation from the usual lecture model. Students indicated that the active learning approach had made them work in different ways, explore a range of opinions and ideas and ways of doing things and being actively involved had been beneficial and made them think critically. It would appear from the responses that many students developed an appreciation of the interrelationship between reading, writing and discussion, thinking and arguing or substantiating an argument. The discussion element appeared to have made them realise that it was necessary to have an opinion, that it had been interesting and enriching to be exposed to the ideas of others and 'different things came out of discussion that didn't come out of reading and writing.' It appeared that students learned from discussion a need to be flexible in their thinking and the discussion added a needed dimension to the exploration of a topic that was personal and controversial.

There was some difference of opinion about whether the use of a single topic was not 'overkill' as well as the quantity of exercises. For some students the use of one topic gave them a sense of the whole; how the different aspects of problem solving were integrated and the opportunity to explore in depth different aspects and angles to the topic. Said participants 'we had no idea there could be so much to find out about a topic from a mere newspaper article' and 'I didn't know there was so much to the topic'. A minority felt it became tedious and boring and several topics were needed.

Generally students indicated that there was an appropriate mix of practical and theory although there were requests for more practical work and reinforcement particularly those relating to the sources of law. Students appeared to have enjoyed the range of

assessment methods and exercises as they encouraged them to work and think differently and provided regular feedback.

CHAPTER SEVEN

INTERPRETATION OF FINDINGS

The preceding chapter, Chapter six, presented the collated data collected via the six instruments: survey of law schools, questionnaire to students, pre and post-test, learning styles inventory, reflection exercise and focus groups. The instruments used were chosen because of their appropriateness for the particular kind of data needed. This data was collated using various means and presented in different formats and the results were analysed. The purpose of this current chapter, Chapter seven, is to consider the analysed data presented in Chapter six within the context of the research questions presented in Chapter one as well as in relation to existing research. Chapter eight will provide an overview of the whole research project and an evaluation of the extent to which the research questions were answered.

7.1. INTRODUCTION

The current study was a case study¹ and a range of data was collected via different instruments in order to answer the research questions and provide a thick description of the case under study.

Silverman² referred to the instrumental case study in which ‘a case is examined mainly to provide insight into an issue or revise a generalization.’ The purpose of the current study of the Legal Research Writing and Reasoning module as a case study, was the designing and assessment of the feasibility of an active learning approach to teaching legal research. This purpose required the investigating of the following questions:

1. What is the current situation in South African university law schools with respect to the content, delivery and assessment of legal research instruction?

¹ L Cohen, L Manion, and K Morrison. *Research methods in education*. 5th ed (2000) 181-183; D Silverman. *Doing qualitative research*. (2005) 126-128; PB Foreman. “The theory of case studies.” (1948) 26(4) *Social Forces* 408-419; K Jocher. “The case method in social research.” (1948) 26(4) *Social Forces* 410-412; A Holliday. *Doing and writing qualitative research*. (2002) 84; B Flyvbjerg. *Five misunderstandings about case-study research*. (2004) 425-427; R Stake. *The art of case study research* (1995)..

² D Silverman. *Doing qualitative research*. 2nd ed. (2005).

2. What theoretical background is appropriate to the development of the module in terms of learning and teaching in order to develop a theoretical framework for the Legal Research Writing and Reasoning module?
3. What does the design of the Legal Research, Writing and Reasoning module incorporate in terms of an information literacy paradigm?
4. Regarding the types of learning:
 - What is deep learning and what is its relationship to active learning?
 - What is active learning and how feasible is it to use an active learning and teaching approach in the lecture and large class situation and what will an active learning approach look like in a legal research module?
5. Regarding learner characteristics:
 - What are some of the characteristics of the student population enrolled in the module and how, if at all, do any characteristics affect the development of the module in terms of teaching, learning and assessment?
 - What are learning styles, how should knowledge of them influence teaching and learning activities and approaches and which methods need to be employed to accommodate them?
6. What kinds of assessment are appropriate for a module of this nature and feasible within the large class situation?

The in-depth study of this particular case allowed for the observation of a process over a finite period of time with a particular group. This approach was seen as an appropriate means of being sensitised to the above-mentioned broader issues - that cannot be gained from theory alone - in a context-specific situation. The case study often supports or extends the development of context-independent theory.³ The

³ B Flyvbjerg. Five misunderstandings about case-study research. In: Searle, C. ...et al. (eds). *Qualitative research practice* (2004) 421-422.

present case study successfully applied general theory to the specific situation of the LRWR module.

Whilst the study advocated understanding the process within a particular context, it recognised the potential generalisability of findings from the situation on one campus of the UKZN Law Faculty to its location within a broader context, that of law schools more generally in South Africa. Generalisability is not only in terms of doing what is done but rather what can be done given the same availability of designs and activities.⁷ The use of this second year class can be said to be representative of second year humanities and social sciences classes at the University of KwaZulu-Natal and indeed other universities in South Africa as it represented a spectrum of students in terms of race, gender, age, language, socioeconomic and educational backgrounds and academic prowess, degree representation, class size, classroom organisation and broad teaching and assessment activities.

The particular situation, the LRWR module, was chosen because of the nature of the setting itself; the author's involvement in this particular case⁴; its bounded nature in terms of a specific class within a module of fixed duration and learning and teaching goals. A case study lends itself to a thick description of the case and the methods used to examine the case depend on the goals of the research, opportunities for the collection of valid data in terms of the research criteria, what constitutes evidence in the context of the particular research and situation specific factors.

This chapter serves then to collate the key points and significant features from the body of evidence – theory, literature, description of the case and data collection instruments - and situate them within the framed research questions. The chapter is arranged in order of the research questions.

7.2. RESEARCH QUESTIONS

The research questions are presented here in numerical order as set out in 7.1. above.

⁴ See Ch 3: 3.4.4. for explanation of how critical distance or objectivity is maintained.

7.2.1. RESEARCH QUESTION ONE

What is the current situation in South African university law schools with respect to the content, delivery and assessment of legal research instruction?

7.2.1.1. Overview of South African law schools from websites

Initially a search of university law faculty websites was undertaken to establish how common legal research and legal method type of modules were, what terminology was used, and if modules existed, the content of them. This survey was sufficient to determine that the existence of a discrete module at UKZN was part of a national trend. These websites were revisited on occasions as they develop and change over time. Although information from websites about legal research in South African law schools is incomplete, an emerging picture indicates a commitment by all law schools in the country to the inculcating of a range of 'legal skills' including research (Ch. 2: 2.2.7. presented the national standards and outcomes required for legal education and the emphasis on skills). A wide range of terminology has been used to describe this range of skills, and most institutions use the word 'skills'. The range of terminology included legal skills, legal studies, legal process, legal research and writing, but many specified the individual components of these modules.

From the information available it appears that 14 of the 17 law faculties offer discrete skills modules and at least 12 of the 17 law faculties offer the legal skills programme in the first year of study. At least four offer discrete skills education modules in other years as well. UKZN appeared to be the only institution offering a skills module in the second year. Thus the nature of the LRWR module and findings may be considered to be somewhat peculiar to the Law Faculty of the University of KwaZulu-Natal because of its unusual second year status. From the websites, four universities appeared to incorporate skills education within other modules with two law institutions not offering a discrete skills module. Two websites provided no details.

It would appear from the information available that the most common package of skills is one that includes reading, writing, research, computer skills and numeracy. Other skills offered by some institutions as specified by them include problem-solving, legal discourse, critical thinking, learning, oral advocacy and legal argument, logic and reasoning. Because it has not been possible to establish the

content of each of the 'skills' programmes there may well be overlap in terms of how these skills are defined. Eight institutions actually used the terminology research or legal research to indicate a particular skill included in a module or as a module. This usage does not mean however that research was not incorporated in other named blocks of skills. Until this further information is available, the generalisation of the findings of this research to the broader South African law school context may not be possible.

At least 13 institutions appear to separate out the different skills, implying discrete teaching or focus on the different skills, but this practice would have to be confirmed in future research.

Assessment methods were mentioned on four websites and a variety of methods were used, namely tests, exams, portfolios, group discussion and assignments although what was meant by 'assignment' was not spelt out.

The search of websites and the evolving research questions of the study indicated that more information was needed about the exact nature of legal research modules and specifically about approaches taken to teaching and learning legal research. Unfortunately, for reasons explained in Chapter six: 6.2., no responses to the questionnaires were received despite repeated requests so this information was not available for the purpose of this study. Some information was, however, gleaned from another source, a workshop, which is described below. The workshop indicated a commonality of issues around legal research which includes UKZN.

7.2.1.2. Recent developments

The author recently attended a workshop on Numeracy, Research and Literacy, sponsored by the South African Attorney's Fidelity Fund (AFF),⁵ a national body, one of the functions of which is to support training in skills particularly at post university level. This workshop was attended by representatives from 19 of the country's 21 law schools which constitute 17 law faculties. It was a precursor to another national meeting of stakeholders to be held with government later in 2008 concerning problems with the undergraduate degree and skills deficiencies of law

⁵ This workshop took place in Bloemfontein, South Africa from 20-22 July 2008.

graduates.⁶ The author was the only librarian at the workshop and had been asked to speak on legal research and the current legal research module was presented.

Several things were apparent from the workshop. Literacy was not defined and there did not appear to be a common understanding of what was meant by literacy within the academic legal community. Several teachers of numeracy and literacy (here referring to the teaching of English) were not legal academics and were seconded from support units to teach skills in law faculties. Some had teaching qualifications. Many skills programmes were stand-alone modules or components of other modules. It was acknowledged by some delegates that although skills components were in theory built into substantive modules, it was not clear what was actually being achieved in practice. It was acknowledged that if academic staff were to assume responsibility for skills training, they themselves would need training. The issue of assessment was discussed and there was clearly a dearth of formative assessment. Assessment was fairly traditional in format comprising tests, essays and exams. It was agreed that assessment needed to be given more consideration.

Originally legal research skills were not going to be covered in the workshop. The 2004 workshop of law deans that had considered the problems of the LLB (see footnote 13), were raised again at the 2008 workshop. Surveys within the profession prior to the 2004 workshop, undertaken by the Attorneys Fidelity Fund had indicated that alongside problems of numeracy and writing, the inability of graduates to research and to recognise the critical aspects of the legal resources which are needed to locate information was highlighted. The paucity of research skills supports research in other countries such as that by Howland and Lewis, and official investigations such as those known as the McCrate report (United States of America) and the Lord Chancellor's Advisory Committee on Legal Education and Conduct⁷ (United Kingdom) (Ch.2: 2.2.6.). Responses to this author's presentation

⁶ An earlier national meeting held in 2004 was reported on in this thesis in Chapter 1: 1.4.3, and indications are that problems have not been resolved although the number of initiatives to supply skills training is growing.)

⁷ JS Howland and NJ Lewis. "The effectiveness of law school legal research training programmes." (1990) 40 *Journal of Legal Education* 381-391; American Bar Association. *An Educational Continuum: Report of The Task Force on Law Schools and the Profession: Narrowing the Gap*. Chicago: ABA (1992). <http://www.abanet.org/legaled/publications/onlinepubs/maccrate.html>. Accessed: 3.2.2005. (known as the McCrate report); J Rose. "The McCrate Report's restatement of legal education: the need for reflection and horse sense." (1994) 44(4) *Journal of Legal Education* 548-565; Lord Chancellor's Advisory Committee on Legal Education and Conduct *First report on legal education and training*. (1996).

indicated that delegates were generally not familiar with the concept of information literacy as defined in librarianship. Research skills were predominantly taught by academic staff and as a discrete activity albeit within a skills module. It would appear that most teaching of research skills is still focused on legal sources of information.

At the 2008 workshop the Attorneys Fidelity Fund raised the issue of attempting to establish what minimum should be aimed for in terms of skills; the need to be clear about what university education and skills training was equipping students to do; the need for the integration of skills education within substantive modules and the need to provide students with the tools to acquire skills and knowledge. Given the current focus on skills training apparent from the law faculty websites surveyed, it was not surprising that the ensuing discussion on skills at the workshop raised the following questions about:

- the place of skills teaching at university – whose responsibility is it to teach these/
- there being a need for a comprehensive literacy training but what constituted literacy training was not defined although a difference between functional and comprehensive literacy was acknowledged?
- the advantage of a separate module to teach skills
- which skills if any are legal skills and which are generic?
- who within the university should teach particular skills – law school staff or staff from other departments?
- how are skills best taught in the classroom?
- assessment of skills is an issue as many competencies could not be assessed in traditional ways or subjected to quantitative measurement
- school level being the appropriate place to teach these skills – the first school classes matriculating with mathematics literacy would be entering university in 2009 and it would be a matter of time before it would be clear whether this mathematics literacy would have provided a sufficient mathematics background for law students
- there being a need to identify and involve all stakeholders.

These issues mirror those presented in the literature review by authors such as Cooper, Bell and Bradney.⁸ Satisfactory answers to these issues has not yet been achieved within the South African legal profession or university curricula.

The LRWR module had taken cognisance of these questions in terms of investigating new approaches to teaching and learning within the module and incorporation of practical and critical thinking skills. The LRWR module also included a range of assessment in order to be able to assess the skills included in the module more comprehensively. Thus the module's development was and is situated within these debates and its continued development will hopefully contribute to the debate and finding ways to bridge the gap between lack of skills and knowledge and need for such skills and knowledge.

There were three presentations at the 2008 workshop on legal research in particular (including the one by the author). These presentations and ensuing discussion raised common concerns:

- the authors' reference to the broader characteristics of 'generation Y' was met with general agreement. It was acknowledged though that in South Africa many students came from homes and schools that reflected neither a reading culture nor technology nor necessarily educated parents
- students are fast and efficient communicators thanks largely to technology but this ability is not transferred into the written environment
- memorisation is still a feature of learning and students take the shortest route to solving a problem which means that their research is limited to the basic sources and lacks breadth, depth and critical analysis
- many students do not see the need for research beyond university and the final year research project (which is not always compulsory).

These common concerns mirror the literature in terms of student characteristics and their impact on learning and teaching such as the survey undertaken by Manuel;⁹

⁸ BD Cooper. The integration of theory, doctrine, and practice in legal education. In: Lysaght, P, Sloan, AE and Clary, BG. *Erasing lines: integrating the law school curriculum*. (2002) 51-65; P Bergman. "Reflections on US clinical education." (2003) 10(1) *International Journal of the Legal Profession* 109 - 111; J Bell. Legal education. In: Cane, P and Tushnet, M. *Oxford handbook of legal studies* (2003) 902-918; A Bradney. Liberalising legal education. In: Cownie, F. *The law school-global issues, local questions*. (1999) 1-3.

and student approaches to learning namely deep and surface approaches. Surface approaches to learning and rote learning according to Biggs, Marton and Saljo and Marton, Hounsell and Entwistle¹⁰ in particular, are often driven by assessment requirements, teaching styles, and learner characteristics.

The LRWR module sought to emphasise the purpose of, and need for research via a problem-solving approach; facilitating problem-solving by using a problem topic which was investigated from various angles; and then scaffolded in terms of the provision of relevant information. The particular literature encountered in the solving of the problem served to indicate how the law changes and the imperative to be able to find the law. The degree to which this learning was achieved was not accurately determinable. The focus groups and reflection exercise did serve to indicate that many students had discovered the need for and importance of researching as well as the range of information sources available and how to find and use them.

Other perceived problems encountered with law students noted at the July workshop were:

In terms of student work habits:

- students 'do not read' which affects their ability to reason and their logic
- students are innovative in solving problems but in particular ways
- students do not buy textbooks and many photocopy only sections referred to in class so they do not have even the full basic text to refer to.

In terms of skills:

- there needs to be a focus on critical thinking, problem-solving and application of skills
- skills need to be built up throughout the entire degree
- a model for the gradation of skills taught over time throughout the degree needs to be developed
- skills need to be integrated into the substantive modules. If there is a stand-alone module, the module can be blamed if skills are deficient

⁹ K Manuel. "Teaching information literacy to Generation Y." (2002) 36 (1/2) *Journal of Library Administration* 195-217.

¹⁰ J Biggs. *Teaching for quality at university*. (1999) chapter 2; P Ramsden. *Improving learning: new perspectives* (1988); F Marton, D Hounsell and N Entwistle. *The experience of learning*. (1984). Chapter 3 overviews research.

- what needs to be taught as regards skills and knowledge; should there be a focus on South African materials and information only?
- At what level should skills teaching be pitched at those who will join small firms or those who will become high powered legal researchers?

In terms of research skills in general:

- the research environment is changing and the way legal research is being perceived is also changing
- what should the balance be between the teaching of print and electronic sources?
- there is plenty of online material but much is North American with a dearth of such material for developing countries and Africa in particular
- there is a lack of textbooks on legal research (the author's experience is that students are not prepared to read a book on research skills, but it would provide a reference source).

In terms of provision of and access to information and resources:

- course packs are counterproductive to encouraging research
- there is a disparity between resources held by university libraries and firms.

Authors such as Laurillard, Biggs and Kolb amongst others have emphasised the need for developing critical thinking skills; that university education should be about higher order skills development and the 'how' of teaching is critical for learner success.¹¹ This need has been reiterated in the context of legal research.¹² The website survey and attendance at the workshop by the author clearly outlined the commitment to skills provision, in particular, research skills within law faculties with respect to the changing nature of higher education and SAQA requirements. They also highlighted the ongoing challenges faced by law faculties in terms of appropriate ways of developing these skills within the LLB degree. The LRWR

¹¹ D Laurillard. *Rethinking university teaching: a conversational framework for the effective use of learning technologies* 2nd ed. (2002) 1-20; J Biggs. *Teaching for quality at university*. (1999); DA Kolb. *Experiential learning: experience as the source of learning and development*. (1984).

¹² P Callister. "Beyond training: law librarianship's quest for the pedagogy of legal research Education." (2003) 95 (1) *Law Library Journal* 7-45; P Lustbader. "Construction sites, building types, and bridging gaps: a cognitive theory of the learning progression of law students." (1997) *Willamette Law Review* 317-357. Online: Westlaw. Accessed: 8.12.2005; P Clinch *Teaching legal research*. (1999) 2-13. www.ukcle.ac.uk, Accessed: 8.5.2004

module attempted to redefine the content and processes of developing legal research skills and knowledge.

7.2.2. RESEARCH QUESTION TWO

What theoretical background is appropriate to the development of the module in terms of learning and teaching in order to develop a theoretical framework for the Legal Research Writing and Reasoning module?

The credibility of the LRWR module and its effective design and functioning and evaluation and future development depended on the module being underpinned by a sound theoretical framework. The author had been refining and experimenting with the module over a number of years but it became apparent that a formal investigation of the existing research was necessary in order to be able to develop and examine the feasibility and effectiveness of any new approach properly. The literature review has acknowledged and reflected the key components of the theoretical framework.

Theory is a set of interrelated concepts, which provides a systematic view of a phenomenon. Theory guides practice and research; practice enables testing of theory and generates questions for research; research contributes to theory-building, and selecting practice guidelines. So, what is learned through practice, theory and research interweaves to create the knowledge fabric of the discipline.¹³

'A theoretical framework is a structure of concepts which exists in the literature, a ready made map for the study.'¹⁴ The literature review highlighted research, current thinking, debates, issues and gaps in research. It revealed and consolidated the range of theory across several disciplines, but particularly within the broader education sphere, that needed to be considered in the development of the LRWR module as well as allowed for the testing out of this theory in practice within the context of the LRWR module.

Chapter four presented the resultant theoretical framework for the LRWR module. A diagrammatic presentation of this framework was presented in Figure two. This

¹³ P Liehr and MJ Smith. *Frameworks for research*. (2000).
<http://homepage.psy.utexas.edu/HomePage/Class/Psy394V/Pennebaker/Reprints/Liehr%20Class.doc> p 2;
supported by others such as D Silverman. *Doing qualitative research*. 2nd ed. (2005) 96-105.

¹⁴ P Liehr and MJ Smith. *Frameworks for research*. (2000).
<http://homepage.psy.utexas.edu/HomePage/Class/Psy394V/Pennebaker/Reprints/Liehr%20Class.doc> p 13.

framework reflected the more concrete dimensions of formal IL education and supports the work of authors such as Bruce, Kuhlthau, Lupton and Lantz and the ACRL standards (Ch. 2: 2.1.2.1.) and Margolis and DeJarnatt and Lustbader (Ch.2: 2.2.5.) in terms of a more holistic approach to IL pedagogy and legal research. This framework then reflected existing and emerging international trends in approaches to teaching IL. The theoretical framework for the legal research module included consideration of nine factors. First consideration was of the various environments in which the module operated. These environments include the broader South African context within which the study of law takes place. This environment is important because of the changed political dispensation since 1994 and resultant impact on all spheres of life, no less the development of the legal environment and in particular legal education.¹⁵ (Ch.1: 1.5.2 and 2.2.7.). Within the broader environment is the changing higher education landscape both nationally and internationally (Ch.2: 2.3.2.1.).

In South Africa the higher education landscape has been dominated by mergers and evolving transformation within tertiary institutions as well as difficulties presented by the changing composition and diversity of the student body. One of the biggest problems is the range of preparedness of learners for university because of a schooling system that varied dramatically in terms of the quality of education provision under Apartheid. Universities are being expected to support and make good the deficiencies of the schooling system (Ch.2: 2.3.2.1.).

South African higher education has followed international patterns in terms of the massification of higher education, diverse student populations with different needs, increasing accountability of tertiary institutions to stakeholders and funders and often decreasing financial resources in the face of ever increasing and diversified competing demands on these resources (Ch.2: 2.3.2.1.). The changing face of legal education has also mirrored these changes with far more learners entering law schools, many enrolling in law modules for a broader education or to increase employment opportunities, not necessarily with the intention of practicing law (Ch.2: 2.2.6.). At a local level individual institutions have their own characters,

¹⁵ JD Jansen. Changes and continuities in South Africa's higher education system, 1994 to 2004. In: Chisholm, L. (ed.) *Changing class: education and social change in post-Apartheid South Africa* (2004) 293-314.

requirements, priorities and resources. Classrooms themselves present particular learning environments both physically and in terms of how classes are managed.

Secondly, the literature review also indicated that any module development is informed by various rationales. These include national educational goals such as those established by the South African Qualifications Authority (Ch.2: 2.2.7.) which are informed by national political, social and economic imperatives, as well as requirements of professional bodies. A discipline such as law, in terms of training for practice, takes cognisance of the needs of the profession. Tensions between professional practice and professional training appear endemic to such disciplines (Ch.2: 2.2.2.). At a localised level, each institution or law school develops a curriculum within this broader context and individual modules need to take cognisance of and fit within this overall curriculum. At the University of KwaZulu-Natal, the Law Faculty's current curriculum was informed by a post institutional merger mission, vision and values.

The LRWR module had to accommodate the curriculum of the UKZN Law Faculty which was situated within the SAQA requirements as well as those of the profession. These requirements reflected attention to problem-solving, critical thinking, research, writing and presentation skills and knowledge in particular. UKZN is a recently merged institution so module content, delivery and assessment methods between the two campuses and within the Pietermaritzburg Law School location is still evolving. The student population is diverse and UKZN is no different from other institutions in terms of a changing student population.

The third consideration is of the aims and outcomes of an individual module. Any module needs to be designed to take account of the outcomes the module would like to achieve, how these outcomes should be assessed, and the objectives that will help the outcomes to be achieved. The aims and outcomes obviously involve content: information, knowledge and skills both behavioural and cognitive, as well as processes. Objectives may be expressed in various ways, such as teaching or learning objectives. Consideration must be given to the various learning and teaching activities that will support learning. (Ch.2: 2.3.6.1; 2.3.6.4; 2.3.6.6.). The literature suggested an ever increasing concern with making learning learner-

centred. The objectives for the LRWR module were expressed as learning objectives. The backward design model of Wiggins and McTighe¹⁶ and the ACRL standards (Ch.2: 2.1.7.) and objectives were taken cognisance of for the module in terms of outcomes and objectives which were presented in Chapter four. The unique positioning of the LRWR module within the South African legal higher education landscape meant that some aims and outcomes were specific to South Africa, but it can be argued that the generic outcomes are universal within formal IL and legal research programmes. (Ch.2: 2.1.2.1; 2.1.7.3; 2.2.2.).

Fourthly, an important factor for all learners is the mechanisms that support all spheres of their lives on campus. Student life co-exists within a broader personal context for all students and they deal with a multiplicity of problems and activities to deal with both academically and personally in terms of finance, accommodation, meals, family life social networks and so on. All aspects of a student's life need to be considered by an institution in order for students to succeed.¹⁷

Fifth, much of the content of the objectives and outcomes is subject specific. Generic skills and knowledge also form part of the content. With law for example, content that is appropriate to the academic study of law as well as skills and knowledge for practice are obviously critical. Content and approach are also concerned with understanding and how this understanding is to be demonstrated. The literature discussed whether legal research skills and knowledge were unique or whether they were largely generic. The context and nature of published legal materials and the approach to the study of legal problems gives legal research its particular flavour as elucidated by authors such as Lynch, Clinch, Twining and Danner and Blackshield.¹⁸ (Ch.2: 2.2.2.).

Within the study and practice of law, the nature of problem-solving is varied with claims of a mismatch between the kinds of problem-solving taught and that that

¹⁶ G Wiggins and J McTighe. *Understanding by design*. 2nd ed. (1998); Ch.2: 2.3.7.6.

¹⁷ R Dunn and SA Griggs. *Practical approaches to using learning styles in higher education*. 14-18.

¹⁸ P Clinch *Teaching legal research..* (1999) 1. www.ukcle.ac.uk. Accessed: 8.05.2004; MJ Lynch. "An impossible task but everyone has to do it – teaching legal research in law schools." (1997) 89 *Law Library Journal* 415-451; W Twining. Taking skills seriously. In: Gold, N and RA Danner. "Contemporary and future directions in American legal research: responding to the threat of the available." (2003) *International Journal of Legal Information* 6-12. Online: Westlaw. Accessed: 8.2.2005.

operates in practice such as has been described by Schon and others for a range of professions.¹⁹ (Ch.2: 2.2.2.). The LRWR module attempted a problem-solving approach with a particular topic that required consideration of the variety of approaches to problem-solving to be applied. The aims, objectives and outcomes for the LRWR module were based on the SAQA and faculty requirements, the nature of the study of law (Ch.4: 4.3. and 4.4.) but also within an information literacy paradigm as will be discussed below. Consideration was given to teaching and learning approaches. Problem-solving is broadly accepted as reflecting a constructivist and active learning approach so the use of a problem was not unique to the current research. The problem-solving approach that integrated product, process, application, knowledge building and change in conceptions is common to international researchers such as Bruce, Behrens, Lloyd, Webber and Lantz (Ch.2: 2.1.2.1.); Schon (Ch.2: 2.2.2.); instructional designers such as Jonassen (Ch.2: 2.3.7.6.) and Gerdy and Boyle in the legal research context (Ch.: 2: 2.3.8.).

For both the discipline and practice of law, as the author has argued in the research problem (Ch.1: 1.2.), the literature of law is vast and presented in a variety of published sources. As the law is also constantly changing, it is impossible to 'learn the law' (presume there to be a finite and unchanging body of knowledge) so the student and practitioner of law need to be able to know where to find the law. Thus development of any module but particularly an LRWR module, needs to take cognisance of the published literature in terms of range, format, tools, accessibility, ethical use of and so on. The LRWR module was fashioned around the nature, use of and access to the published legal literature but within a problem-solving context.

Responses to the questionnaire and pre-test administered to the LRWR class provided a certain profile of the students and indicated that the students lacked knowledge about basic academic and legal published sources of information. While there was a significant improvement between pre- and post-test results as regards knowledge of sources of law, the post-test results indicated that more attention needed to be paid to the teaching and learning about legal information sources in

¹⁹ DA Schon. *Educating the reflective practitioner*. (1987) 22-32; C Lumina. "Students' perceptions of the problem method in law: implications for teaching practice." (2005) 16(2) *Stellenbosch LawReview* 349-354; P Clinch *Teaching legal research*. (1999) 1. www.ukcle.ac.uk. Accessed: 8.05.2004; W Twining. "Taking skills seriously." (1986) 4(1) *Journal of Professional Legal Education* 2.

particular. The reflection exercise and focus group responses showed students to be enthusiastic about electronic resources but they needed training in how to use them with understanding. This is borne out by literature on the impact of technology on information access and retrieval.²⁰ Again, the changing conceptions (this change in conceptions not being specifically studied) of the LRWR students reflected in the above findings are consistent with the international literature on learning taking place when other ways of seeing the world are identified and explored (Ch.: 2: 1.2.1.)

Sixth and seventh factors are the integrated facets of learning and teaching. Research has indicated a focus on learner-centredness, a need to align teaching and learning and take cognisance of the individuality of learners. The literature has indicated the problems involved in defining learning (Ch.2: 2.3.3.1.) but there appears to be agreement that learning is about content as well as process and understanding. This complexity is also borne out in the various definitions of IL and learning (Ch.2: 2.1.2.). There has been discussion about what knowledge is, the kinds and contexts of knowledge and how it relates to understanding with authors such as Biggs, Moon, Entwistle, Kolb and Perkins and Unger²¹ considering what understanding is and how it is to be achieved. (Ch.2: 2.3.3.3; 2.3.7.4.). Prior knowledge is considered an important building block for learning and the basis for authentic learning activities (Ch.2: 2.3.3.3.). Learners are all different in terms of personal characteristics, backgrounds, learning styles, aptitude and so on (Ch. 2: 2.3.3.3.; 2.3.5.). Thus learners all learn in different ways and the same lecture to a group of students will not be received and responded to in the same way by every learner. Thus learning activities need to be designed in ways that take cognisance of different learning styles which may require multiple methods for learning. The LRWR module included both content and process, the various forms of knowledge

²⁰ RA Danner. "Contemporary and future directions in American legal research: responding to the threat of the available." (2003) *International Journal of Legal Information* 30p. Online: Westlaw. Accessed: 8.2.2005; L Arp and B Woodard. "Recent trends in information literacy and instruction." (2002) 42(2) *Reference & User Services Quarterly* 127-128; C Bruce. *Information literacy as a catalyst for educational change: a background paper.* (2002). (2002). <http://dlsit.sir.arizona.edu/archive/00000300/>. Accessed: 16.7.2005.

²¹ J Biggs. *Teaching for quality at university.* (1999) 35-36; DA Kolb. *Experiential learning: experience as the source of learning and development.* (1984) 33-38; JA Moon. *A handbook of reflective and experiential learning: theory and practice.* (2004); N Entwistle and C Smith. "Personal understanding and target understanding: mapping influences on the outcomes of learning." (2002) 72 *British Journal of Educational Psychology* 332-334; DN Perkins and C Unger. Teaching and learning for understanding. In: CM Reigeluth. *Instructional-design theories and models: a new paradigm of instructional theory.* (1999) vol 2, 91-114.

and paid particular attention to how understanding could be included through a range of learning and teaching activities.

The literature reflected that much attention has been given to active learning and constructivist learning. Constructivist learning presumes the student to take some responsibility for learning, learning should be active and scaffolded, accommodate learning styles and include problem-solving and reflection. Active learners need to be cognitively and behaviourally engaged in order for deep learning to take place. Reflection is a critical part of active learning (Ch.2: 2.3.4.). The LRWR module adopted and adapted the constructivist instructional design model of Jonassen (Ch.2: 2.3.7.6.) as a way of realising active learning for the module. The module incorporated discussion and group work, deliberate scaffolding, a range of assessment methods, feedback and formal and informal reflection. All the skills and knowledge for the module were brought together in terms of an overarching problem. This author could only find one other instance in the IL literature of the application of this model so its universal application is not yet confirmed. However, the LRWR module does reflect international recommendations as regards the use of instructional design to structure learning outcomes and objectives for learning (Ch. 2: 2.1.7.4.)..

The teacher makes learning happen and needs to act as a conduit of knowledge but also as a facilitator and coach who helps learners learn. This learning is a function of the alignment of teaching and learning activities of multiple types in order to accommodate the differences in learners, empathy, enthusiasm and design of authentic learning activities. Very much a part of the teaching and learning activity is the nature of instructional design (see also Jonassen's model referred to (Ch.2: 2.3.7.6.). For both teacher and learner, authentic assessment activities need to undertaken (Ch.2: 2.3.10.). In the LRWR module the author was both teacher and coach, providing information but also facilitating active engagement by the students with the scenario. The author was also a participant in terms of debating the issues and attempting to establish an appropriate outcome with respect to the scenario.

Straddling both teaching and learning and thus their aims and objectives, is IL. As both a process and content and also an approach to learning, IL aligns the facets

reflected in the title of the LRWR module within the context of the information environment and endorses the theory of teaching and learning as outlined above. Thus the author chose to design the LRWR module within the context of an IL paradigm and experiment with its feasibility within the large class situation (Ch.2: 2.1.).

The ninth factor is evaluation. No module design can be static as every new group of students is different and circumstances for teaching and learning change. Thus any module needs to be evaluated. This process helps with further development of a module and indicates problems learners had. The LRWR module was not specifically evaluated by the students, focus groups being used in the experimental year as a means of evaluation.

7.2.3. RESEARCH QUESTION THREE

What does the design of the Legal Research, Writing and Reasoning module incorporate in terms of an information literacy paradigm?

This research question was answered with respect to the literature review that then informed the theoretical framework and design of the LRWR module. The design of the module was in part based on several years of experimentation, application, reflection, revision and re-application of design features. The roll out of the module suggested that the IL paradigm was appropriate and was important to the design of the module particularly with regard to approach and objectives and outcomes (Ch.4: 4.3 and 4.4). The feedback from students both verbally and in their assignments indicated that there were no mismatches in terms of the integration of the content and processes of IL and content and processes of general teaching and learning and that particular to the study of law.

The IL paradigm provided an approach to learning for the module. In the formal education context, the ALA definition implies that it is the learner who is the instigator of a need for information and then interacts with and experiences the various facets of the information environment, namely sources of information in various formats, technology, accessibility, evaluation, usage and so on (Ch.2:

2.1.2.). While debate continues over the definition of IL and the sufficiency of various definitions (Ch.2: 2.1.2.), it is generally agreed that IL is a process, a problem-solving process as well as embodying content, an active process and can be individually or collectively undertaken, often within a specific context. While the ALA definition hints at the linearity of the process, it has been acknowledged that this is often not the case with the process in real life. Formal teaching may however suggest the steps in a basic linear manner as a simple model to conscientise learners to the role of information in problem-solving.

In terms of the first part of the ALA definition of IL which deals with the recognition of a need for information, the LRWR module included the following aspects within a particular problem scenario for both a projected practical situation and an academic assignment:

- topic analysis and FIRAC
- area of law in which a problem is situated
- what is known and unknown about the problem
- needed information and where this might be sought
- search strategy
- circumstances of the client
- nature of the required response.

In terms of the part of the definition that deals with the ability to locate and evaluate information, the LRWR module design included the following:

- nature of primary and secondary sources
- nature of the information environment
- advantages and disadvantages of print and electronic sources
- knowledge and arrangement of published sources of information in different formats
- bibliographic tools
- free versus fee-based resources
- search strategy criteria and evaluation of sources
- politics and economics of producing information
- retrieval and storage of information.

In terms of the part of the definition that refers to the use of information, the LRWR module design incorporated the following:

- selection and synthesis of relevant information
- reading different kinds of information sources
- application of information to a particular need
- arrangement of information to support an argument
- understanding the format and requirements of different kinds of documents such as an opinion
- word processing skills and management of information
- ethical aspects of using information and acknowledging sources with reference to particular referencing styles.

Various organisations (Ch.2: 2.1.7.) have produced standards and guidelines for IL programme design that align an IL programme with any other taught module. These standards and guidelines suggest that any IL module incorporate a statement of purpose, aims and objectives and outcomes with a particular focus on assessment; determination of teaching and learning methods, include active and collaborative activities, take cognisance of learning styles and student characteristics, include critical thinking and build on prior knowledge and be developmental. Thus these IL guidelines dovetailed with those from the literature on teaching and learning to inform the design of the LRWR module. The teaching and learning literature provided examples of instructional design models. The current study adopted a particular model for the LRWR module (Jonassen as per above) and the roll out of the module indicated that such a model could be successfully applied by an IL paradigm. Student feedback in the focus groups and reflection exercise indicated that the approach had promoted learning and the class had appreciated the interrelationship between the various aspects of IL, both content and process.

7.2.4. RESEARCH QUESTION FOUR

Regarding the types of learning:

- **What is deep learning and what is its relationship to active learning?**

- **What is active learning and how feasible is it to use an active learning and teaching approach in the lecture and large class situation and what will an active learning approach look like in a legal research module?**

7.2.4.1. Deep learning and its relationship to active learning

The literature review served as the main source of information for answering this research question and this information was then built into the design of the module. The responses from students in the reflection exercise, focus groups, and classroom observation suggested that deep learning did take place, it developed over time and differently for different students. Some of the written assignments suggested a mismatch between the extent of the deep learning generated by discussion and that in written assignments, but this may have been due to a lack of understanding or practice with written tasks, lack of scaffolding and/or learning styles.

Marton and Saljo²² have been credited with first using the terms deep and surface learning (Ch.2: 2.3.3.5.) based on research into student approaches to learning. Learning in the formal education environment is more often than not determined quantitatively, in terms of its ability to be measured by tests. Increasingly, attention is being given to the qualitative and less observable or measurable aspects of learning which includes learning approaches, learning styles, student characteristics and prior learning (Ch.2: 2.3.) .

These authors identified two levels of learning, deep and surface. Surface learners are reproduction oriented, focusing on the text and coping with the task. Deep learners are concerned with comprehension and the significance of the content. They are concerned with using evidence, relating ideas, understanding and seeking meaning.

Entwistle²³ noted that the definition of deep learning is a generic one and ‘the processes needed to develop deep learning necessarily vary between subject areas,’ and that learners are not wholly in one or other category but rather reflect a

²² F Marton and R Saljo. “On qualitative differences in learning: outcomes and process.” (1976) 46 *British Journal of Educational Psychology* 4-11.

²³ N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts: paper to be presented at the TLRP conference, Leicester, November, 2000.* (2000). 4. www.tlrp.org/acadpub/Entwistle2000.pdf .

tendency towards one or the other. There are degrees of deep learning and it is difficult to measure this qualitative learning approach. Students will adopt a particular approach depending on what the expectations of them are. Pask²⁴ noted that learners may act in either way depending on subject matter demands and may master both approaches.

Research has shown that it is explanation, enthusiasm and empathy on the part of the teacher which are most likely to encourage deep learning. In terms of assessment, those activities that actively encourage students to think for themselves such as problem based assignments and essays tend to shift students towards a deep approach. In terms of learning activities students need to demonstrate their understandings. Learning approaches are also influenced by the application of prior learning and an alignment between teaching and learning. A module and a teacher may have a target understanding that is the understanding in terms of the syllabus and its interpretation by the teacher. A learner constructs a personal understanding. Learning approaches, coupled with classroom dynamics and environment affect how the learner reacts and understanding is said to happen depending on the degree to which target and personal understandings come together (Ch.2: 2.3.7.4.).

The LRWR module was designed from an active learning perspective in order to support the necessary learning in the module and promote deep learning. The range of learning, teaching and assessment activities were aligned in order to support active and deep learning. The topic acknowledged prior learning, required students to be actively involved in finding solutions and included reflection. The focus groups and reflection exercise indicated that students had not only experienced deep learning but had responded positively to exploring learning at a deep level. In line with international research, the findings of the research with the LRWR module showed that active learning did encourage deep learning to varying degrees of success and that the particular approach, that of problem-solving within the legal research context, encouraged deep learning. Entwistle²⁵ noted that the nature of deep learning may require different approaches in different subjects.

²⁴ G Pask. "Styles and strategies of learning." (1976) 46 *British Journal of Educational Psychology* 133.

²⁵ N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and*

7.2.4.2. Active learning

Active learning has been simplistically defined as anything in terms of doing or thinking that is required of a student, whatever is not passive listening by students. However it has been suggested that being active is insufficient in itself and activities need to be appropriate, behaviourally and cognitively challenging and multidimensional (Ch.2: 2.3.4.). The definition that 'active learning is a multi-directional experience in which learning occurs teacher-to-student, student-to-teacher and student-to-student'²⁶ and the point that holistically active learning 'includes getting information and ideas as well as experiences and reflection'²⁷ suggest a process, not just an activity, and a process that might happen individually but also collectively. Such opportunities may be provided by the classroom situation. Getting information and ideas may include reading and accessing information both in and out of class; experiences might include engaging in undertaking real activities or observing how something is done or working in groups.

Reflection is critically important in two respects: in order to make meaning of the experiences, observations and information acquired as well as on the process of learning itself.²⁸ Reflection may be in the form of discussion, written work, and specific reflection assignments. Reading, writing, listening, talking, reflecting are the classroom components of active learning.²⁹ The LRWR module specifically included all of these as well as a formal reflection exercise where students were asked to comment on their experience of the content and processes of the module. The reflections of the students usefully indicated that this exercise had provided them with an opportunity to assess their learning, that deep learning had taken place and that the various aspects of the legal research process were being viewed as interrelated. Students enjoyed the active learning approach.

educational contexts: paper to be presented at the TLRP conference, Leicester, November, 2000. (2000). www.tlrp.org/acadpub/Entwistle2000.pdf 3. Accessed: 6.3.2005.

²⁶ M Silberman. *Active learning online*. <http://www.acu.edu/cte/activelearning/>. Accessed: 8.1.2005.

²⁷ LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses* (2003) 106.

²⁸ LD Fink. *Creating significant learning experiences: an integrated approach to designing college courses* (2003) 110; JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 83; 133-149.

²⁹ C Meyers and T Jones. *Promoting active learning : strategies for the college classroom*. (1993) 19-21.

The constructivist approach to learning implies promotion and attainment of deep learning:

Constructivist learning is active learning in which the learner possesses and uses a variety of cognitive processes during the learning process. The major cognitive processes include paying attention to relevant information, organizing that information into coherent representations, and integrating these representations with existing knowledge. Instructional methods other than drill-and-practice are required to foster these kinds of processes during learning.³⁰

Active learning formed an integral part of the exploration and development of the theoretical framework and its adoption in the LRWR module based on the research by authors such as Kolb and Entwistle into the effectiveness of experiential and active learning.³¹

7.2.4.3. Active learning application in the large class situation

The study suggested that the active learning and teaching approach was feasible in the large class situation for the students although not without some difficulties. The nature of the ill-structured problem with various possible solutions that required problem-solving from the 'bottom up,' that being having to start with the problem and then find the relevant information rather than applying already known information to a problem, helped generate a collective sense of taking responsibility for resolving the issues at hand. Recognition of the possibility for there being a range of opinions and ideas provided the need for interaction in order to become informed as 'the answer' was not clearly in the textbook. A mix of small group work and general class discussion provided different avenues for building a solution. Small groups were feasible despite the inflexibility of the physical classroom, the difficulties being the considerable amount of noise and the author not being able to interact with each group sufficiently during the course of small group discussion. The group work processes will need further investigation in future research.

³⁰ RE Mayer. Designing instruction for constructivist learning. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 46.

³¹ N Entwistle. *Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts: paper to be presented at the TLRP conference, Leicester, November, 2000*. (2000). www.tlrp.org/acadpub/Entwistle2000.pdf ; DA Kolb. *Experiential learning: experience as the source of learning and development*. (1984).

7.2.4.4. What an active learning approach looked like in the LRWR module

The overview in 7.2.4.1. indicated that an active learning classroom is one where interaction between students and students and lecturer takes place, group work happens, there is provision of information and reflection and a range of learning and teaching activities. The discussion below indicates the form that the active learning approach took in the LRWR module.

7.2.4.4.1. Experiences with group work

The approach of the module incorporated small group work, working in pairs and general class discussion and debate. The challenge with group discussion was the physical limitations of the classroom and arrangement of desks and chairs so most groups worked in rows rather than in a circular or horse shoe formation of group. The size of the class and its obvious enjoyment of discussion meant the classes were often very noisy. The composition of the groups was self determined and did not vary a great deal. Feedback from the focus groups indicated that this was not necessarily a bad thing as students learned things about their friends they did not know and they felt more comfortable talking with people they knew. Students in the focus groups also indicated that group work added a dimension to their learning that reading and lectures did not provide. There were those few students who preferred to work alone.

The questionnaire administered to the students at the beginning of the module indicated a desire for more group work, debate and discussion: activities that promote deep learning. The focus groups at the end of the module indicated that students had enjoyed the group work with some reservations in terms of preferred size, the composition of groups and students indulging in general chatting during class discussion. Group work for them had made classes interesting, was a useful source of additional information and interaction had provided an opportunity to hear the views of classmates.

Facilitation of group work was undertaken in terms of the author and a student assistant circulating amongst the groups and provoking all groups to discuss to varying degrees. Discussion within groups happened more quickly and at a deeper level as time went by as the students got used to the idea of group work and each

other. These group situations were used mainly for discussing the substantive parts of the topic where they needed to explore scenarios for resolving the issues, analyse the issues, values and contested dimensions of understanding their own opinions and thoughts in relation to what was stated in the law.

The experience of group work indicated that more study of the use of group work needed to be made, particularly in the large class situation. Another problem was time allocated to in-class activities. Students worked at different paces and often when it came time to discuss a worksheet as a class, some students had not finished whilst others had been finished a while. Different work paces is a problem with the large class situation. Time frames need to be more carefully thought through, as well as extra activities for those who finish quickly. Some slower students resented the fact that they were unable to finish before class discussion and report back began.

Students also worked in pairs, usually in the context of completing worksheets. Working in pairs had the effect of students helping each other. Working in pairs and groups appeared to increase confidence levels in the students in terms of asking questions and points of clarification and creating a shared experience. Reviewing worksheets as a class also provided instant feedback and enabled students to get a sense of how they had mastered the activity. Feedback from the class also helped in identifying aspects of process and content that needed more attention in future module discussion. This active reflection type process also allowed for reference back to the bigger picture, points of theory and linkages to the next phase in the process.

Heightened engagement with the class provided continuous feedback, useful insights into deficiencies in the module design, how students work and different ways of seeing teaching and learning in action. This approach in the module showed that active learning promoted deep learning.

In terms of the LRWR module, learning activities and assessment were designed to encourage deep learning. The adoption of the ill-defined problem and its exploration from different angles, and the building of solutions requiring discovering and

applying and reflecting on knowledge and skills was thus adopted. Once-off practical exercises with sources of law in isolation from other activities were useful for students to undertake hands-on experience of sources but proved insufficient to inculcate a thorough knowledge of the nature and use of the sources. Providing students with problems and assignments that necessitated finding, evaluating and using information and information sources for particular needs was considered more conducive to deep learning. The appropriateness of active 'doing' exercises was borne out by the overall good practical exercise marks. Poor marks in some assignments such as the opinion, indicated the need for more application of and integration of knowledge and skills about sources in a process (see Research question six below). The group work and nature of the problem and working on it from different angles, afforded students the opportunity to engage meaningfully and gain experientially. Observation of the group work and assignments in particular supported the view that these necessitated deep learning and students were able to enjoy the benefit of group activity but also learn individually.

In terms of finding and using bibliographic tools and sources of information and information within sources, physical handling of the sources and tools took place along with explanation and / or demonstration followed by exercises. Hands-on work is essential for students to be able to master the finding, accessing and use of sources of information. The reflection exercise and focus groups indicated that this hands-on work had been popular and there was not enough of it. This work with sources of information could not be undertaken with the whole group because of the realities of lack of facilities and resources for large groups so students were allocated to smaller groups for this. In the large class situation it was however possible to give students books and copies of journals to look at and undertake referencing exercises. The advantage of this solution was the possibility for sharing questions (and answers) raised by individuals with the whole class.

7.2.4.4.2. Experiences in terms of reading

In terms of obtaining information from the material that needed to be read, a number of activities were undertaken as was described in Chapter five. Questionnaire results in particular indicated that for many students reading academic text was a difficult exercise. The questionnaire indicated that generally students did not ready

widely and not necessarily even the core prescribed material. Difficulties seemed to stem partly from language and vocabulary. The reflection exercise where students were asked to consider their learning half way through the module produced responses with respect to reading that indicated a realisation of the importance of reading and that there was a technique to reading. Undertaking the reading of the chapter in class had the benefit of students participating in and learning from the discussion around the reading.

7.2.4.4.3. Reflective practice

Reflection is a vital part of active learning and in the LRWR module reflective practice took a number of forms and this activity needs further development for the module. Reflection activities appeared to be unfamiliar to the students and they were a bit dismissive of this activity even when the purpose of it was made explicit. They tended to see reflection as equated with course evaluation.

Students were informed that this was not an evaluation of the module but of their own experience of the processes within the module. Of the total number of respondents, 65% provided useful insight and showed they had reflected thoughtfully. Sources of information received most attention followed by practicals and tutorials, problem-solving and reading and writing. Comment about the sources centred on acknowledgement of the large range of sources available, distinguishing between primary and secondary sources and individual sources, ability to now be able to find and access sources, electronic sources, knowing how to find a starting point for a search and being able to use the law library.

Many of the comments confirmed answers on the questionnaire and pre-test that students had not been clear about the differences between primary and secondary sources, were unfamiliar with the range of legal sources available, particularly electronic resources, search strategy and indexes. The module had helped provide information and skills and comprehension. The post-test however indicated that more work is needed in terms of nature of organisation of indexes and the sources of law themselves. Of the 35 comments with regard to difficulties noted in the

reflection exercise (representing nine different aspects), 15 made reference to difficulties with using sources and finding information.

The comments in terms of practicals (scheduled classes) which reflected 'doing' activity, and exercises, focused on the sources of law as opposed to the processes involved in dealing with the subject matter. Some 76 of the 184 comments made reference to the usefulness of practicals to learn about the sources of law, with 50 students saying using electronic resources was enjoyable. These responses in this category were different to those in the category sources of law mentioned above in that they specifically commented upon the practicals as the opportunity for using and learning about sources as opposed to reflection on the sources more expansively. Most responses here were in terms of how the practicals were useful and enlightening, electronic resources being enjoyable and a range of diverging comments on the amount of information in and pace of the practicals. These comments also support the questionnaire and pre-test answers concerning need for knowledge about and concomitant training in the finding, accessing and use of sources and the appeal of the electronic medium, and knowledge of subject specific sources.

In terms of comments on problem-solving, most centred around the importance of analysing a situation carefully and thinking in a considered manner. Comments covered the need to think from all angles, think outside the box, importance of arguing a point and not drawing conclusions too early. In terms of the problem-solving process, comments mainly referred to the fact that problem-solving was a process and many here referred to FIRAC; problem-solving was not necessarily straight forward needing well argued solutions; confidence in using the process; the need to evaluate sources used and the fact that argument was something that was constructed. These comments are insightful and indicate the positive impact of an active learning approach in terms of an authentic problem to actively engage with and the range of activities employed to tease out the process namely group discussion, reading and writing.

With regard to the comments about reading and particularly writing, the range of comments indicated that writing for some had been an illuminating experience in

terms of how challenging writing was in various respects. One comment said: 'reading and writing exercises allowed us to actually put ourselves in a particular situation; this helps us to visualize and this helps us to analyse as a professional not just as students.' Another said: 'Prior to LRWR I used to answer questions for the sake of doing so; not as an opportunity to apply my mind and expressing it in writing and having to actually argue.' These comments suggest that these students had started at least to see the integration of the various skills in the process and were employing a deep learning approach.

7.2.4.4.4. Summary

Overall students enjoyed the variety of learning, teaching and assessment approaches and being active, and the group discussion, reflection exercises and focus groups indicated that deep learning did take place and students appreciated the active nature of the module. The problem-solving approach encouraged students to engage meaningfully with the content and tasks. Students had to consider their own opinions and values against those of other students and the perspective of the law. It has been argued that experiential learning is important for authentic tasks and active learning and to this end the LRWR module chose a topic that was controversial, relevant and which students could relate to. Some tasks could have been better scaffolded. The findings from the LRWR module suggest that these findings are in tandem with those of international studies and thus could be considered to be generalisable with caution (Ch. 2: 2.1.5; 2.2.4; 2.2.5.).

7.2.5. RESEARCH QUESTION FIVE

Regarding learner characteristics:

- **What are some of the characteristics of the student population enrolled in the module and how, if at all, do any characteristics affect the development of the module in terms of teaching, learning and assessment**
- **What are learning styles, how should knowledge of them influence teaching and learning activities and approaches and which methods need to be employed to accommodate them**

7.2.5.1. Introduction to learner characteristics

The findings for this research question were based upon the literature review and data gathered about the LRWR class. The literature review provided the breadth and depth of research into the variety of characteristics of learners and how they impact on learning and teaching. Importantly, the literature indicated that these characteristics needed to be taken cognisance of when designing learning and teaching activities. Learner characteristics have been considered for individuals as well as groups.

‘Characteristics are distinguishing qualities, attributes or traits’.³² Characteristics may concern individuals or groups such as lecture classes or persons in the same shared situation. Generally in the formal education environment learner characteristics include the mental, physiological predispositions to learning (learning styles), multiple intelligences, and situation or context of learners namely socio / cultural / economic / educational and other environmental factors as expounded by authors such as Moon, Manuel, Gregory and Chapman and Bruner.³³(Ch.2: 2.3.3.3.). The range of possible characteristics of a group of people that can be considered in any context is thus enormous.

In terms of the LRWR module, the questionnaire was used to elicit information about particular characteristics of the students. A review of the literature in terms of broad characteristics of the current generation of students also informed the questionnaire. It is accepted that not all possible relevant characteristics could be studied and the questionnaire instrument would be insufficient to do so. The purpose of the questionnaire to the LRWR class was not to study characteristics of this group exhaustively, but obtain some background demographic information by way of understanding what the dynamic of the group might be. The questionnaire also elicited information about the students with regard to their approach to certain of their academic activities as were relevant to the content and process of the module.

³² Collins concise dictionary plus. (1989) 215.

³³ JA Moon. *A handbook of reflective and experiential learning: theory and practice*. (2004) 9-68; K Manuel. “Teaching information literacy to Generation Y.”. (2002) 36 (1/2) *Journal of Library Administration* 195-217; GH Gregory and C Chapman. *Differentiated instructional strategies: one size doesn't fit all*. (2002) 19-36; J Bruner. *Towards a theory of instruction*. (1967) 40-72; WR Crozier. *Individual learners personality differences in education*. (1997).

The learning styles instrument was applied in order to obtain some sense of learning predispositions if they existed, and thus how this might affect instructional design, and particularly teaching activities. The pre-test helped elicit some information about what students knew as regards the generic IL skills and knowledge and content that was to be included that could not be sought via the questionnaire. Focus groups indicated student preferences and opinions about the module content and processes. The reflection exercise responses also indicated characteristics about the class in terms of their prior learning and skills and knowledge that had impacted on them particularly.

In the formal education environment the teacher is expected to produce the same result at the end of the day – an educated learner who has qualified with some or other certification (Ch.2: 2.3.7.1.). Yet within any group of learners there are vast differences.

Whilst all learners in a learning situation may receive the same content in the same way, differences in learner characteristics mean that learners within that group learn in different ways, at different paces and with different degrees of success. In the educational environment much attention has been given to learning styles (see second part of this question) and factors such as prior knowledge and particular aptitudes and competencies such as reading, writing and critical thinking, are often viewed as prerequisites for enrolment in a course of study.

The attention to these characteristics is increasingly concerned with improving learning and teaching in terms of appropriate and authentic activities so as to accommodate learner differences and support learning. Understanding these characteristics of learners may also assist with determining content and degree of difficulty that a module can advocate as well as interpersonal relations and dynamics within a class.

7.2.5.2. Demographic characteristics of the LRWR module students

Of those registered for the LRWR module, the questionnaire indicated that 48% were male and 52% female and 73% in total were 'non-white' in terms of South African racial classification, with 48.2% of the class being African. Actual age was

not asked for but with 85% of students being in their second year of study and few being mature students, this meant that most of the students were highly likely within the age range of 20 to 24 years of age. These particular characteristics are important in the South African setting and in context of the University of KwaZulu-Natal, a traditionally 'whites only' and urban university.

Most students enrolled in the module were young children at the time of the end of Apartheid in South Africa and the first democratic election in 1994 so have grown up in a different world where politically and legally, access to the spectrum of opportunities and facilities are no longer differentiated along racial lines. A new Constitutional dispensation that promotes individual and basic human rights is also part of their upbringing. Research question two of this chapter dealt with the changing nature of South African higher education (see also Ch.2: 2.3.2.1.).

These two factors, race and gender, whilst not specifically considered a facet of this study, are acknowledged as affecting classroom dynamics (Ch.2: 2.3.3.3.). It was observed in classes, that whilst students of the different races interacted, they tended to sit together and work in groups polarized along racial lines. The author observed no difference in terms of willingness to discuss and express opinions although it was mainly white males who asked questions. Indian students were generally the least responsive in terms of asking questions. African students appeared to enjoy group and discussion work more than White or Indian students. Whilst the language of instruction is English, English is not the mother tongue for nearly all African students. Many of these students are also first generation university students in their families. In group work these students often discussed in their mother tongue. Thus the author had to be aware of accommodating these different dynamics and allow flexibility in terms of how students worked but also try to draw students into a shared responsibility for the module.

Although post Apartheid South Africa is committed to eradicating discrimination and developing a non-racial society, there are political and legal requirements for the continued racial categorisation of people in terms of deliberate interventions for transformation, redressing injustices and the uncoupling of racial privilege. The Population Registration Act of 1950 proclaimed the categorisation of race groups

into Whites, Natives (Black Africans) and Coloureds (anyone of mixed blood) with Indians being added as a category a little later as a result of an amendment to the said Act. This classification was based on a large number of factors, many unscientific but judgment calls, and race identification was closely linked to issues of power, social class and privilege. Discriminatory legislation has been removed from the statute books since the early 1990's. In the current times, 'previously disadvantaged' refers to all groups who are not White. Acts of parliament such as the Employment Equity Act of 2001 specifically refer to this classification in terms of enabling affirmative action policies. While many economic, social and political barriers have been removed in South African society, transformation is as yet an incomplete process.³⁴ There is a dearth of published research in South Africa into race relations at the micro-level such as the lecture theatre.

McCrinkle claims that, like an ancient saying, in this generation 'people resemble their times more than they resemble their parents.' Giving consideration to the characteristics of the current generation described in the literature (Ch.2: 2.3.5.2.), these characteristics suggested that a module like LRWR needed to actively engage students and be interactive, in a more informal manner. Hence an active learning approach with a variety of teaching and learning activities was considered appropriate for the module. Answers on the questionnaire concerning other activities that students would like to see in lectures if possible and focus group responses indicated that many students wanted and appreciated variety and 'doing' activities and discussion.

The questionnaire revealed that over 50% of students were registered for degrees other than law. Of the responses concerning reasons for studying law, 42% indicated reasons as to broaden career options and an interest in law. This broad spread of degrees that students were registered for affected the design of the module. Its emphasis was on process and content relating to that process not just within a narrowly defined context-specific situation. The problem topic was not too demanding in terms of a knowledge of the law and was inclusive of non-law aspects so as to be hopefully applicable to the wide spectrum of degrees. The module also

³⁴ D Posel. "What's in a name? Racial categorisations under apartheid and their afterlife." (2001) 47 *Transformation* 50-74.

took cognisance of the fact that although all the students would have completed the same first year law modules and most were undertaking the same second year law modules, there were some students who, because of the degree they were registered for, would not have been taking certain law courses. For example, commerce students study criminal law in their third year, whilst for others it is a second year module.

The broad spread of degrees also affected choice of topic in that the topic should not require too much in-depth legal subject knowledge, appeal to all students from various perspectives and reflect non legal as well as legal content and approach as well as need for particular scaffolding. The topic involved aspects of criminal law. To ensure all students had sufficient information about the relevant criminal law, the criminal law lecturer provided a lecture where he overviewed the criminal law relevant to the topic prior to students undertaking the first formal written exercise. This exercise related to what crime/s the teacher in the newspaper scenario might be charged with (Ch. 5: 5.2.6.).

7.2.5.3. Students as online users

The questionnaire results indicated that all students were computer literate and familiar with the online environment. Some 55% of students had first learned how to use a computer at school with 22.7% indicating they had learned at home. In South Africa, computer hardware and software and Internet connectivity is relatively expensive and the exception rather than the norm in South African homes and rural schools in particular, although changing fast. The university provides computer facilities, albeit insufficient for demand and insufficient bandwidth is a problem.

Responses on the questionnaire and reflection exercise and in focus groups indicated that students searched online for information and enjoyed the module's practical exercises in finding online information. The most common online activities were emailing, finding information for assignments and word processing. Only 51% of students had used the Library's website. The questionnaire and the pre-test indicated that students had had little exposure to and made little use of subscription databases prior to their second year. Answers suggest that they are World Wide

Web searchers in the first instance. Reliance on the prescribed textbooks and material provided by lecturers is high in first year.

Thus the module served to elucidate:

- the wide range of information resources available to students in both print and electronic format
- the importance of primary information in the legal context
- evaluation criteria to use when selecting sources from the range available
- the particularities of academic database searching and the nature of subscription versus free information
- search construction
- the Library's website as a gateway to a range of resources.

The post-test answers and practical exercises in online searching indicated that students had difficulty identifying which databases to use to find particular information such as the South African collection SABINET, for South African journal articles, or what information different databases provided.

Developing facilities such as federated searching will assist with accessing resources to some degree but it indicates that the seamlessness of World Wide Web searching is not yet fully developed within subscription databases. Federated searching will not be available in most instances in law firms. It was also apparent that constructing a search for an academic database using Boolean logic is foreign to students and inculcating these skills will require more scaffolding in the future. Whilst only 51% of respondents indicated they had used the Library's website, nearly 68% had done so in order to access the catalogue as opposed to the 19% who had used the law library for accessing the catalogue. A deficiency in the questionnaire was its failure to include in response options the use of the law library for searching for electronic information. (There are currently only eight public access computers in the law library). It does appear from the earlier responses about online searching and the low use of the law library for accessing the catalogue, that students used the library for facilities and information not available remotely, electronically.

7.2.5.4. Students as information searchers and users

The questionnaire results, the pre- and post-test, observation during practical exercises and the main reflection exercise, indicated that student searching and using of printed resources was generally confined to a narrow range of resources. Activities of reading, evaluating sources and acknowledging information sources used were underdeveloped. The LRWR module had served to expose students to a wide range of information sources. The lack of knowledge about the range of information sources available and how to use them was highlighted in the questionnaire and pre-test. The LRWR module provided knowledge and skills about sources as indicated by the higher post-test over pre-test performance, positive focus group and reflection exercise responses. Post-test responses as regards evaluating sources and referencing showed improvement as a result of the application of the module. The reflection exercise and focus groups indicated that the module had served to elucidate the nature of and importance of reading. The summarising exercise and the written exercises indicated how students read texts and the need for more scaffolding in terms of reading and applying what was read to specific situations.

Of the respondents who used the law library, 89% said they did so to use Short Loan and 59% for photocopying. This high use of Short Loan was probably because copies of all prescribed items are placed on Short Loan and students may borrow them or make photocopies. The combined law modules in any one semester may necessitate access to at least six to eight textbooks at a prohibitive cost. On the Pietermaritzburg campus, the Law Faculty website has not as yet been used as a facility for making material available hence the high usage of the library. Usage of the library for resources other than the textbook was very limited. This finding was supported in terms of the questions concerning reading, where 68% of respondents said they always read the textbook, with far lower percentages for other sources. Reasons being offered for difficulty in studying law included reading and vocabulary difficulties. As reading is such an integral part of the study of law and indeed information literacy, the LRWR module included a number of necessary readings and exercises in summarising, reading academic text and worksheets to facilitate reading.

The summarising exercise was done particularly badly by students. In the reflection exercise, several students noted that they had been introduced to new perspectives on reading and writing. There were 21 comments on reading that indicated students found reading difficult and had been introduced to new ways of approaching academic reading.

It was beyond the capacity of the author and the LRWR module to provide reading training to any great degree, but interventions with regard to reading are clearly needed and the academic support coordinator had initiated such support but as an extra curricular and voluntary activity. It would be prudent to integrate more reading training into the module. The questionnaire indicated that LLB students generally read more than other degreed students whilst Arts students formed the majority who never read. This lack of reading perhaps indicates the necessity to emphasise the interrelationship between reading and other facets of the information literacy process and in the study of law.

The pre- and post-test results had indicated that student knowledge of information sources, both 'standard' sources such as journal literature, as well as more specialised law sources was lacking before the module intervention. In terms of the questions which specifically dealt with the encyclopedia LAWSA, journals, databases and indexes to two specific sources, the pass rate on the pre-test was one, eighteen, five and three students respectively. On the post-test this pass rate increased to 50, 88, 47 and 43 students respectively. Although a great difference occurred between the two tests, the overall pass rate on the post-test was below 50% except for the question about journals. However, the number of students who could offer anything by way of an answer for these questions increased by between three and sixteen times on the post-test compared with the pre-test. Whilst the author acknowledges that a written test is probably not the best option for testing this sort of knowledge, the results of the pre- and post-test indicated that the format of the module was successful in imparting knowledge of sources and how to use them. There is scope for further development in the module with regard to sources of information.

The findings as regards the characteristics of the LRWR population are in part generalisable in terms of characteristics exhibited by university student populations such as a mixture of gender, race, expectations and reasons for studying at university. The students are all users of electronic information, and with gaps in their knowledge base in terms of the range and identity of formal academic and subject specific information resources. The composition of the class along the lines of degree may be unique to the LRWR module at UKZN given the availability of a major in Legal Studies, resulting in a mixed class of LLB and non LLB students.

7.2.5.5. LEARNING STYLES

The application of a learning styles instrument in the LRWR module was undertaken as confirmation of the fact that different learning styles exist within any group of learners and, along with those factors mentioned above, have implications for teaching and learning. It was not the intention of this research to study learning styles as a particular feature. As indicated in the literature review chapter (Ch.2: 2.3.5.), learning styles are acknowledged as needing to be taken cognisance of in terms of designing authentic and appropriate teaching and learning activities and cultivating deep learning. Whilst the character of student learning appears to be elusive, understanding learning styles can usefully inform teaching and learning activities. The literature indicated a need to accommodate learning styles but also a need to provoke students to experiment across a range of styles in order to facilitate more effective learning.

The particular instrument used was only applied at the beginning of the module. Practical reasons prevented the instrument being applied earlier. However, an understanding of learning styles from the literature and some general features of university teaching and characteristics of the South African higher education landscape influenced the instructional design of the LRWR module ahead of the administration of the ILS in terms of taking cognisance of learning styles generally. The teaching and learning framework of the module was sufficiently flexible to permit developments based on the outcome of the application of the learning styles instrument.

Learning is not just about behavioural and performative knowledge acquisition but also about specific approaches or learning activities adopted by learners, supported by appropriate teaching activities, where learners create or construct meaning. Learning styles are the predispositions to learning or approaches adopted to make learning happen.

Numerous learning styles instruments exist. In the current research, Vermunt's learning style inventory (Appendix four) was applied to the LRWR students. Vermunt³⁵ had established four learning styles that are not mutually exclusive and which he claimed are an extension of learning styles developed to date. His learning styles are: undirected, reproduction directed, meaning directed and application directed learning styles.

Each style is distinguished by what students do, why they do it, how they feel about it, how they see learning and how they plan and monitor their learning.

The results of the application of the learning style inventory (Ch.6: 6.2.4., Table 25) to the LRWR class indicated that if one takes into account those who reflected a combination of styles, it is clear that a majority of students who completed the learning styles inventory reflected the reproduction directed learning style. This reproduction directed learning style of learner exhibits characteristics of wanting to reproduce or rote learn what has been learned. Vermunt indicates³⁶ that students need to be encouraged out of undirected and reproduction learning styles and into meaning and application directed styles. There is also a need to move from external regulation to internal regulation as learners realise and take responsibility for constructing their own knowledge. These findings support the international picture of variable learning styles amongst any group of students. The lack of published information about the application of this particular inventory deny the findings of this research broader generalisability than the LRWR module.

³⁵ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis". (1996) 31 *Higher Education* 25-50.

³⁶ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis". (1996) 31 *Higher Education* 47-48.

There are many possible reasons for the prevalence of the reproduction learning style within the LRWR module students. Vermunt³⁷ indicates that in the reproduction style in particular, the studying approach of learners often does not differ markedly from that of their schooling experience. It is contended that this style is prominent because of the (still) predominantly transmission nature of teaching at university, a pattern not dissimilar to that at school so teaching and learning activities are perpetuated at tertiary level. It is certainly true on the Pietermaritzburg campus and in many South African universities that teaching is still predominantly transmission in nature, particularly because of the unfavourable teacher learner ratios and large classes. For learners also, the focus on summative testing, quantity of information to be absorbed, the high cost of education which places pressure on students to pass exams first time, English as a second language which may restrict meaningful engagement with learning, and this passive kind of learning being an easier option may also be reasons.

Learners may also be unaware of the expectations attached to university learning and the different ways of studying in different disciplines, thus are not aware of new approaches for learning. Maintaining a particular style may also be a 'safe' option for some learners in terms of feeling secure about what is known.

Vermunt³⁸ refers to the partitioning of learning by learners so that they develop a sense of 'learning in an educational environment'. It is conceded that learning and teaching in the formal academic environment has a flavour all of its own. The irony is that one of the purposes of higher education is to develop generic higher order cognitive skills and ways of thinking about the world, competencies needed in the workplace, and a university education is partly seen as preparing one for the workplace. Yet an 'academic education' with context specific knowledge, to employers in the workplace is often seen as less important than these higher order cognitive skills that transcend specific domains which implies that there is a

³⁷ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis". (1996) 31 *Higher Education* 37; Chalmers and Fuller concur: D Chalmers, and R Fuller. *Teaching for learning at university*. (1996) 12.

³⁸ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis". (1996) 31 *Higher Education* 46-47.

disconnect between university learning and workplace expectations.³⁹ Concern in South Africa is that law students emerging from a university education are unprepared for the rigours of professional practice. The particular approach of the LRWR module encouraged deep learning and meaning and application directed learning, encouraging students to move from the reproduction directed style. The module activity was scaffolded so as to encourage students to appreciate different approaches to learning.

Reasons for the non-predisposition to a particular style are not necessarily of concern and were dealt with in Chapter six on learning styles. Possible reasons include lack of time or care with filling in responses, difficulty of questions, or, as the Learning and Skills Research Centre advocates, lack of testing of the instrument in different cultural settings. It could be revealing to apply the learning styles instrument to these same students further along in their academic careers to observe if changes in learning style orientation may have developed.

Much of the current interest in learning styles stems from a desire to help learners and improve teaching interventions. There is a need to observe the role of learning styles because the learning process is an interaction between learner, environment and teacher. Each affects the other. Where teaching activities appeal to learning styles, the learning experience may be rewarding and encourage deep learning. Learners also need to be able to assimilate different learning styles as situations require. The literature suggests that learners experiencing discomfort and being forced to move out of their comfort zones, is a catalyst for new learning (Ch.2: 2.3.5.3.) Tileston⁴⁰ claimed, based on a survey of research, that only 20% of learners are auditory, thus making the lecture method unsuitable for most. The fact that a group of learners may be exposed to the same content and teaching method does not mean that they all learn at the same pace or in the same way. Thus different methods need to be explored in order that learners are not disadvantaged in their learning. The LRWR module attempted to reduce the emphasis on lecturing.

³⁹ J Vermunt. "Metacognitive, cognitive and affective aspects of learning styles and strategies: a phenomenographic analysis". (1996) 31 *Higher Education* 27-28.

⁴⁰ D Tileston. *10 best teaching practices: how brain research, learning styles, and standards define teaching competencies*. (2000) 63; J Biggs. *Teaching for quality at university*. (1999) 21.

7.2.5.6. Influence of knowledge of learning styles on teaching activities in the LRWR module

University teaching hopes to move beyond the 'show and tell' passive model, encourage critical thinking skills, develop skills and capabilities beyond transmission of fact and affect cognitive change. Teaching learners to actively construct knowledge and make sense of the world by learning *how* to describe the world means that a learning style such as the reproduction directed one needs to be challenged. This shift can take place where learning activities are varied, scaffolded and the teacher acts as facilitator. Challenging a move within and to different learning styles requires attention to process as well as content and this has implications for instructional design.

The LRWR module was originally largely lecture based with practical exercises taking place within the library and a computer classroom. A set of notes was provided for students and overhead transparencies were used during lectures. Assessment comprised practical exercises, summative tests and an essay type assignment. Except for the practical exercises, the author could tell from class reactions, that meaningful learning was not taking place and students were restless. LRWR was described by students as easy and a 'nuisance' course that should have been placed in the first year. It was also apparent that certain kinds of information needed to be more practically based in order for comprehension and application to take place. Given the time of year, students also suffered in lectures that took place in mid afternoon in an unconditioned room with temperatures around 30 degrees Celsius.

Given the nature of learning, learners and learning styles and teaching activities as elucidated in the literature the author began a process of developing the module that was more engaging in terms of learner involvement both cognitively and in terms of active participation. This development was based on a process of instructional design, from outcomes and corresponding assessment to goals and objectives. It was decided to use the class time more productively by having students undertake small assignments that reflected a scaffolding of knowledge during the classes and allowed them the time to work cooperatively. Gradually the module showed development into one expressing an active learning approach. The emphasis shifted

to a more equitable balance between process and content – the earlier years focussing largely on content such as sources of law. The use of a core topic with an ill-defined problem (Ch.2: 2.3.6.6.) illustrated the interrelatedness of all aspects of the legal research writing and reasoning processes in problem-solving. Chapter five illustrated the actual playing out of this process during the module with chapter four indicating the goals and objectives. The nature of teaching and learning activities was as varied as possible to allow for different learning styles but also to give students the opportunity to move through and explore different styles. The constructivist active learning approach is surely appropriate to meaning and application directed learning styles as advocated by Vermunt and militates against more reproduction type approaches to learning.

The active learning approach to the LRWR module provided opportunity for a variety of learning and teaching activities that could accommodate different learning styles and learner characteristics. To cater for the different kinds of learners notes were provided as well as necessary readings and the class all received copies of the newspaper articles and core readings. Brief verbal input was provided in lecture periods with the use of the black/whiteboard, overhead transparencies to overview content and processes. Discussion took place in small groups and with the class as a whole. Guest lectures provided some input in terms of content about the topic and processes such as sentencing and how to write an opinion. In some instances, materials were distributed in class for students to look at and use, such as unbound journals and books and government gazettes.

Practical exercises both in the law library and in a computer classroom facilitated handling and use of actual sources of law to find information and experiment with features of electronic searching. Worksheets were used as performative exercises, scaffolding exercises and also acted as assessment opportunities where appropriate. As performative exercises, the worksheets required students to study situations and articulate responses to questions but also reflect on their personal opinions; find further information and transfer knowledge and skills such as undertaking footnoting exercises.

The LRWR module took cognisance of learning styles in terms of its instructional design, and learning and teaching activities. The learning styles inventory indicated the dominance of the reproduction directed learning style despite the non categorisation of many learners. The dominance of this style reflects tendencies in many higher education settings due to factors such as assessment, physical classroom environment, and teaching and learning activities as described by various authors. The literature indicated a need to expose students to different learning styles whilst allowing flexibility in accommodating the range of learning styles. A variety of activities in the LRWR module appropriate to the approach, content and processes and the topic were used so as to motivate students, appeal to a range of learning preferences, scaffold, allow for feedback and reflection and encourage students to learn in different ways. The range of activities was also used to help learners move through the different learning abilities (as described by Kolb: Ch.2: 2.3.5.2.) and explore different ways of approaching learning.

Because the practice of law is reading and writing oriented, such activities were included at regular intervals. Whilst some of these activities may not have appealed to learners in terms of their learning styles, the range of activities provided flexibility in terms of opportunity to explore preferences, explore new ways of learning with or without discomfort which may be necessary for new learning to take place. Although not necessarily a reflection of their learning styles, the fact that students in the questionnaire indicated a desire for more worksheets, discussion, debate, reading and more examples to illustrate and independent research, could well reflect their learning style preferences. In the focus groups various comments and discussion might be interpreted as a reflection on learning styles. Comments suggesting that the multi-method approach helped students learn in different ways; comments concerning how different activities helped in the understanding and development of thinking around the topic; the pros and cons of group work, discussion and other activities reflect not only students' active involvement in the module but their learning styles to some extent.

7.2.6. RESEARCH QUESTION SIX

What kinds of assessment are appropriate for a module of this nature and feasible within the large class situation?

The literature review had indicated that key features of assessment are that it needs to be:

- authentic for learners
- appropriate in terms of objectives and outcomes and content
- include multiple methods to accommodate learning styles
- formative and summative with timeous feedback.⁴¹

Active learning involves the interrelated activities of reading, writing, listening, talking and reflecting⁴² and assessment activities should include these and so the LRWR module incorporated assessment activities that supported such learning activities..

The literature on assessment for IL is considerable, being reflected in the outcomes and objectives of the ACRL, a host of documented case studies and methods usefully overviewed by others.⁴³ The LRWR module involved a range of kinds of assessment, formative and summative, relevant to the outcomes, activity, knowledge and skills being learned (Ch.5: 5.4 – 5.5.). Thus students were provided with multiple opportunities to perform, develop, reinforce and demonstrate the skills and knowledge they learned, in a variety of ways. These opportunities provided variety, catered for different learning styles and required students to work and think about working in different ways.

⁴¹ LB Curzon *Teaching in further education: an outline of principles and practice*. 6th ed. (2004) 388-389; N Entwistle and P Ramsden. *Understanding student learning*. (1983) 208-213.

⁴² C Meyers and T Jones. *Promoting active learning: Strategies for the college classroom*. (1994) 19-21.

⁴³ BG Lindauer. Selecting and developing assessment tools. In: Avery, EF. *Assessing student outcomes for information literacy instruction in academic institutions*. (2003) 22-39; R Catts. Some issues in assessing information literacy In: Bruce, C and Candy,P. (eds). *Information literacy around the world: Advances in programs and research*. (2000) 271-283.; EF Avery's compilation provides a range of case studies but also useful information about methods of assessment, data collection and issues: EF Avery. *Assessing student outcomes for information literacy instruction in academic institutions*. (2003).

The assessment activities reflected different degrees of difficulty. Some assignments reflected particular aspects of content and process in terms of objectives whilst others brought all the skills and knowledge together. Many of the assignments were also assessment activities so as to serve as continuous assessment and reduce the fear of assignments and encourage deep learning. The pre-and post test served to review mainly the broader generic skills and knowledge. The various assessment techniques partly reinforced or informed each other. The pre-test indicated the need for knowledge and skills about content and process.

What was most obvious about all the assessment methods employed was that students showed that they needed to perform or actively undertake exercises in order to make theory come alive, and make the discussion and theory from classes accessible by actually having to create the connection between theory and practice. The assessment activities indicated the degree to which this alignment of theory and practice and understanding took place. At the 'doing' stage students had to think differently and determine how to go about the activities and actively negotiate with the task. The practical exercises promoted group work and shared learning. The assessment methods indicated to the students for themselves where they were going wrong or having difficulty, particularly with the 'hands on' work with sources of law while actually undertaking the exercises. Although exercises were marked after the event, the lecturer and tutor were on hand to provide immediate feedback during the practical classes. Edwards and Bruce⁴⁴ noted in their research that students themselves said that it was assignments that prompted changes in their experiences (of information searching) and assignments that encouraged reflection were preferred.

The range of assessment activities helped indicate specifics of where students were having difficulty and this is important for future development of the module in terms of teaching and learning activities and scaffolding. The range and quantity of assessment activities was very time consuming and tiring for students and this author but was undertaken deliberately to examine the role and usefulness of assessment activities in the module.

⁴⁴ SL Edwards and C Bruce. "The assignment that triggered change: assessment and the relational learning model for generic capabilities." (2004) 29(2) *Assessment in Higher Education* 142, 148.

The written assignments that were not worksheets provided useful information for the author in terms of a more holistic view of how the students were connecting and applying higher order thinking skills. The legal opinion was generally not well done by students. Wiggins⁴⁵ indicated that often with authentic and challenging tasks students may not perform well as the 'bar has been set too high'. Whilst there is a basic format to an opinion, the argument can be presented in a variety of ways. The focus of the opinion – whether a charge of assault against the headmaster would be successful – required a fairly sophisticated argument and consideration of both sides to the argument, unlike the earlier assignment. The requirements for the opinion were specific in terms of length, a basic core of sources that had to be used, proper footnoting and a list of works cited, and typed (up until this point, the assignments of summarising, letter to the school board and worksheets were not required to be typed). A grading rubric was created based on the organisation and presentation, argument, referencing and content of the assignment.

Upon reflection, the author noted that in fact although the pass rate was poor, it was largely due to poor typing, careless referencing and poor argument and use of information. Many students leave their work until the last minute and then find there are problems of accessing communal computers and non-functioning printers; they do not proofread or check instructions. Most are not typists which results in some peculiar presentations and errors. While students did construct meaning and try to substantiate argument, it was at a superficial level on the whole.

It would appear that this whole process will need scaffolding in the future in terms of practical production of a typed assignment and developing argument. There is room for formal input on the nature of reasoning.

The LRWR module used continuous assessment as a way of helping students view how their learning was interpreted by the lecturer in the context of a variety of assignments and their own progress. The focus groups indicated that students appreciated continuous assessment as it gave them a sense of how they were doing and opportunities to improve performance. Comments (Ch.6: 6.7.) suggested that the range of assessment activities and continuous assessment made the

⁴⁵ G Wiggins. *Educative assessment*. (1998) 21.

module interesting, made the module more challenging because of the different ways of working and thinking, provided reinforcement and helped show how all the facets of the module fitted together.

Students also submitted a portfolio. Most assignments were marked by the author and where appropriate, comment supplied and always in an encouraging manner. One of the shortcomings that will need to be worked on in future modules is making more transparent from the beginning of the module, the exact structure or rubric for assessment marking. It also needs to be clearer about the exact nature of the assessment process. The portfolio was also not used as effectively as it should have been. The portfolio could be a useful form of self assessment and reflection and development over time. Unfortunately, early attempts in the module to have students self-assess their work proved unsuccessful and students in the future will need more instruction in how to self-assess. The portfolio turned out to be simply a record of all work the students had done rather than served a particular function.

The problem with handing back marked practical exercises which only reflect right and wrong answers is that there is no facility for then identifying why or how students went wrong or taking students through the correct process. Practical sessions with the printed sources are usually noisy and chaotic affairs even with small groups of students as students fail to return items to their correct places on the shelves which makes finding and using materials difficult when there are limited number of sets of indexes. There is also no time for formal reinforcement of these exercises and only a handful of students ask for extra time or extra exercises to practice. Some of the comments in the reflection exercise and focus groups indicated this. Different ways of approaching these exercises need to be found.

The pre- and post-tests indicated that the intervention of the module had made a significant difference to the students' skills and knowledge although these tests also signified areas for development. The pre-and post-test however could not indicate the extent to which the active learning approach to the module had impacted on students' learning.

7.2.7. OVERALL SUMMARY

This chapter has collated and presented the key points indicated by the findings with respect to the research questions. The research was undertaken as a case study which required a thick description of the case. The case study required different kinds of data which was collected using a variety of methods. The literature review underpinned all the research questions.

The theory relating to teaching and learning within the formal higher education environment led to the development of a theoretical framework for the module. This framework encompassed the various institutional, political, professional and classroom environments in which a module is situated. Within this context, the research led to the adoption of a particular instructional design model that informed the teaching, learning and assessment activities of the module and promoted an active learning approach. The framework also considered facets of learning, teaching, aims and objectives, law as a discipline, the information environment and resources.

The nature of IL and recommended approaches to IL in the higher education environment showed, in the design and application of the module, that there is a synergy between teaching and learning theory and IL and that IL is a useful approach to learning for a module such as LRWR. The design model, along with the application of an information literacy paradigm, supported a framework for the module that adopted the use of an ill-structured problem that reflected the interrelationship between the range of skills and knowledge needed to be information literate, namely, reading, writing, discussion, thinking and reflecting and finding, using and evaluating sources of information. The characteristics of IL informed the content, outcomes and objectives for the module.

The focus groups and reflection exercises in particular indicated that an active learning approach was feasible and appropriate for the teaching of legal research as was the design of the module within an IL paradigm. Students enjoyed the active learning approach and their responses suggest that deep learning was enabled by active learning. The exact impact of this approach can probably never be measured scientifically but the author was able to engage the students in a varied, stimulating

and deep way to differing degrees of success. The evidence gathered supports the literature that an active learning approach is a useful teaching and learning approach.

The pre-test and questionnaire and learning styles inventory served to indicate some characteristics of the student population within the module which informed and reinforced module content and process and the need for scaffolding. Significant features were the lack of knowledge about core sources of information usually subscribed to by libraries, lack of basic knowledge of the processes involved in being an information literate person, problem-solving and habits concerning reading, computer usage and problems in academic work. These shortcomings suggested not only needs in terms of content and process but also the need to adopt an active learning approach so as to encourage deep learning and expose students to a challenging and perhaps different way of engaging with studying and learning particular activities. These instruments indicated the need to adopt a range of teaching and learning activities. The adoption of a range of learning and teaching activities was based on the need to accommodate different styles but also to require students to think and 'do' differently in order to be exposed to and develop learning abilities.

The post-test indicated that the intervention of the module had impacted significantly on the students' knowledge and skills but that there was still room for improvement in terms of working with sources of law in particular. The reflection exercise and focus groups and observation indicated that the active learning approach had generally appealed to students in the module and they had learned in different ways as a result. These two exercises also indicated that a range of assessment techniques and formative assessment was appropriate and appealing to students. Development and fine tuning is needed in terms of content, process and scaffolding and assessment.

The next chapter, Chapter eight, considers the extent to which the research questions were answered in terms of the findings within the literature and the research undertaken. This chapter will also review the current research, its

contribution to knowledge, theory and practice and offers some suggestions for future research.

CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this last chapter is to present a synthesis of the research carried out for this study as well as its contribution to existing research and knowledge. Implications for theory, practice as well as limitations and possibilities for future research are also set out. This chapter commences with a summary of the research problem which includes the background to the problem. This summary is then followed by an outline of the structure of the thesis. An overview of the research questions that arose from the research problem and the findings of the investigation into the research questions with respect to prior research presented in chapter two is provided. A summary of data collected and the extent to which this data was able to answer the research questions successfully is presented. A qualitative assessment of the current study's contribution to the body of knowledge, theory, implications for practice, limitations of the study and possibilities for future research that emerged as a result of the current research form the last section of the chapter.

The current research showed that the purpose of the research was fulfilled. A legal research module was successfully designed from an active learning perspective and the assessment of this module indicated that such a perspective is feasible given the constraints faced by the module.

8.1. BACKGROUND TO THE THESIS AND ITS STRUCTURE

8.1.1. SUMMARY OF THE RESEARCH PROBLEM

Chapter one, section 1.1. outlined the research problem which formed the basis of this thesis. The research problem, which is reviewed below, concerned the development of an appropriate approach to the teaching and learning of legal research (legal information literacy) in the South African context. Section 1.4. of Chapter one elucidated the rationale for the current study which provides further background to the research problem. This rationale included this author's involvement in teaching legal research, the characteristics and challenges facing higher education in South Africa post 1994, and resultant changes in university legal

education in South Africa and with particular reference to the Pietermaritzburg campus of the University of KwaZulu-Natal. Sections 1.1.2. through 1.1.4. considered the broader context of legal research education in South Africa appropos developments in the evolution of information literacy from a librarian's perspective, and the changing nature of teaching and learning and legal education in general. The literature review in Chapter two elaborated on the theoretical developments, challenges, debates, practices and research underpinning the research problem.

The research problem is multifaceted. In terms of the broader context, formal information literacy education is particularly necessary for students of law for several reasons. The published legal literature is vast and is presented across a wide range of sources each of which serves a particular purpose. It is not just the information contained within the sources that is important, but the nature of the sources themselves in terms of the authority of primary information sources in the first instance. South African law is not codified thus the variety of publications that need to be consulted is considerable. In order to be able to use this variety of publications, students of law need to be able to identify and locate publications in a range of formats, exploit them to find the law and then use and apply the relevant information and principles to given situations. Not only does a range of bibliographic tools exist to assist in the location of sources and information, but the arrangement of information within many of these sources and tools is complex. Students of law also need to understand how information in the published sources is set out in terms of the formats of cases and statutes, for example. Much electronically published information is proprietary and thus access is not free. Not all published legal sources are available electronically.

It is impossible to 'learn the law' during the short duration of an LLB degree because of the vast quantity of legal information available and the law is constantly changing. The practitioner needs to have the current law at his/her fingertips. In terms of the practice of adhering to the authority of precedent, students need to be able to assess the status of the law and its application at a particular point in time. The law also operates and evolves within particular environments and contexts which need to be understood. The past fifteen years have also seen major changes in the

presentation of published legal information particularly in South Africa, with much being made available electronically. This changing information environment is impacting on traditional approaches to searching for information.

Law is a problem-solving profession in which problems may be straightforward or complex ones and in which a number of possible solutions may exist, hence requiring a well substantiated answer or argument. In legal education in South Africa, the appropriate approach to problem-solving is broadly considered to be that couched in the acronym FIRAC or IRAC. FIRAC refers to the identification of the legal facts, then the legal issues, identification of the relevant law, application of that law for a given situation, and conclusion. In terms of precedent and the authority or primacy of the primary sources, argument must be substantiated with reference to these primary sources in the first instance. Thus an active learning approach and an IL paradigm, as this study demonstrated, are appropriate frameworks for this problem-solving process not only in terms of knowledge and use of sources of information and bibliographic tools, but because they support a problem-solving approach.

The literature suggested tensions between the problem-solving methods of the professional practitioner and those used in law school teaching. Not only does the study of problems and their solutions educate students about how legal principles are applied in particular situations but aids them in applying the law to new situations. It has been argued though that the problem-solving method used in tutorials and examinations serves to test what students have learned and how they can apply it to new situations, not how to solve problems when relevant information is unknown. This formal approach does not teach them how to solve problems holistically in terms of how to identify a need for information, find information and then apply it to new situations when information is not already known.

The character of IL suggests that a problem and the resultant information need, once identified, drives the learning. If the student knows how and where to research, problem-solving can be undertaken. The FIRAC method suggests a linear approach to problem-solving as does, on the surface, the ALA definition of IL. The problem posed for the current study was whether it would be possible to design a

module like LRWR, from an active learning and IL perspective, that could accommodate these various approaches to problem-solving, integrate the range of skills and knowledge needed to effectively research problems to solve them and actively engage the students in this problem-solving process.

Practitioners are ethically bound to provide the best service for their clients and failure to be properly informed with regard to the law could be to the client's detriment. Practitioners thus need to be efficient searchers and users of published legal information.

In the South African context, there are particular challenges. Students of law in some South African university law schools may be registered for degrees other than law and may only be majoring in Legal Studies, so may not have the same exposure to the full legal curriculum which students registered for the LLB degree have. They particularly need a formal grounding in the practices of studying law and the information sources specific to the study of law. Since the election of the first post-Apartheid government in 1994, South African law students live in an era of profound change in all spheres of life. Not only does the country have a new Constitution with a Bill of Rights which has created the need for a re-examination of all existing legislation, but the Bill of Rights in particular has posed a range of new legal challenges. This rapidly evolving legislative situation impacts on how the law is interpreted and applied by the courts.

Since 1994 South African higher education institutions have undergone major changes (Ch.1: 1.1.4; 1.2; 1.5.2, 2.2.7.). These changes have included mergers and dramatically increased enrolments of previously disadvantaged students which, along with changing staff demographics have and are necessitating fundamental institutional changes. Many students have come from schools where education is of poor quality, often characterised by rote learning approaches and poor or non-existent libraries; have English as a second language and poorly developed core literacy skills. Law has been described as primarily a discursive and analytical discipline¹ which makes the need for mastery of these core skills imperative. Much

¹ K O'Regan. "Producing competent graduates: the primary social responsibility of law schools." (2002) 119(2) *South African Law Journal* 243.

of the first year of the law degree is concerned with foundation courses such as numeracy and computer literacy.

In South Africa the law degree was converted from a post-graduate to an undergraduate degree in 2001 which has resulted in the shortening of the degree from five to four years. This shortened degree has exacerbated the pressure on students to perform in an already highly pressured curriculum. At all levels of academia and professional practice nationally, concerns have been expressed about the deteriorating quality of skills and knowledge of new graduates. The debate over whose task it is to teach basic skills and competencies and lawyering skills – the profession or the law schools – is present in South Africa as well as elsewhere.

Whilst a basic core curriculum has been established across South African law schools, with many including stand-alone skills modules, there appears to be no consensus about the content and learning and teaching methods or academic level of study at which these should be taught. This situation is also true of legal research education. Undergraduate classes are often so large that the lecture method of teaching tends to dominate.

The physical context in which the current study took place is also of importance to the research problem because of its particular circumstances as well as the author's location within it. UKZN is a newly merged institution of two vastly different universities and the 'settling down' post merger period is still under way. The Law Faculty has two schools in two geographically separate locations and the Faculty itself is still in the process of standardising modules, content, methods and assessment.

8.1.2. BRIEF OVERVIEW OF THE STRUCTURE OF THE CURRENT RESEARCH

In order to investigate the research problem and questions this thesis adopted the following structure. Chapter one outlined three core premises for the thesis. These were:

- in the South African higher education context formal information literacy programmes are appropriate and necessary
- the changing nature of the information environment that has and is experiencing an explosion in electronic formats and provision of information has not lessened the need for information literacy education
- given the wide range of characteristics that describe information literacy and the development of IL standards and guidelines for IL programme development, librarians do in fact have to teach, not merely provide technical training in the use of sources.

This chapter then set the scene in terms of briefly charting the historical development of library instruction to modern day information literacy, with consideration of problems of the definition of IL and implementation of IL programmes. This review was followed by a brief overview of the changing nature of and challenges around teaching, learning and assessment and their impact on IL. The specifics of the character of legal research skills and debates around how legal research should be taught led into an overview of the Legal Research Writing and Reasoning module at the University of KwaZulu-Natal Pietermaritzburg campus and the nature of the research problem.

The statement of the problem, purpose of the study, research questions and hypothesis were followed by a more in-depth discussion of the background to the problem in terms of the rationale for the study. Certain definitions necessary to the understanding of terminology used in this thesis context were provided along with an explanation of the current research taking the form of a case study and the reasons for this approach. Ethical considerations demanded by the University of KwaZulu-Natal were outlined as well as a list of chapters.

Chapter two provided the literature review. Given the fact that the development of the LRWR module required investigation of not only the immediate subject areas of information literacy and legal research, but also the broader fields of teaching and learning, a vast literature is available. As it was impossible to do an exhaustive review of the literature, a representative sample of key research and published literature available in English, predominantly covering the period 1975 – 2005, was

presented. The literature review served to provide information, build knowledge, identify debates, trends, proven and new practices and gaps in research and thus help build the theoretical framework within which the current study is situated. The design and development of the module required a theoretical framework as a pre-requisite to practical design. This framework was also drawn on in seeking to answer the more abstract questions posed by the study.

Chapter three presented the methodology and began by considering what research is, the differences between research design, approaches, methods and methodologies and the lack of standardisation of use of terminology. The current research reflects a largely constructivist underpinning and adopted a case study approach. The nature of the situation under investigation, a specific module contextualised within specific parameters, and the need to investigate the case itself as well as the issues which the case could highlight (section 3.8.) made the case study approach the most appropriate for the current study. Whilst qualitative in nature, the research questions required the use of a combination of data collection methods for both qualitative and quantitative data. The rationale for the constructivist underpinning, the case study approach and the effect of these on data collection and analysis as well as meeting requirements of reliability and validity were discussed in some detail. The various data collection methods allowed for a thick description of the module and triangulation, or, consideration of various facets of the problem. The difference between the quantitative and qualitative approaches and methods was outlined in order to illustrate their appropriateness in the current study. Chapter three also briefly outlined the particular data collection instruments used in the current study, namely questionnaires, pre- and post-test, learning styles inventory, reflection exercise and focus groups.

Chapter four provided a synthesis of the theoretical framework for the module. This framework comprised consideration of characteristics of the higher education environment, teaching and learning, assessment and information literacy. Sections 4.2. to 4.4. provided specific detail about the theme for the LRWR module and the conceptual framework which was couched in terms of approaching a problem from a practitioner point of view as well as an academic assignment. The broad learning objectives and outcomes for the LRWR module, developed as a result of

consideration of the theoretical framework were provided in some detail. Attention was given to the range of teaching and assessment methods used in the module as well as the use of a problem-solving design model adapted for the LRWR module, that of Jonassen (section 4.8.2.). He advocates the use of an ill-structured problem which allows students to take responsibility for deep and critical and active learning but in a scaffolded environment.

As the current study reflected the investigation into the design and implementation of a specific module, the actual roll out of the module was described in Chapter five in order to be able to 'see' the module in practice.

Chapter six presented the data that was collected in order to answer the research questions. The quantitative data was collated and analysed with the help of the SPSS statistical package and Microsoft Excel. Thematically the qualitative data was categorized and analysed manually. The data presented in Chapter six largely followed the chronological order in which data collection instruments were administered. (The data was analysed and synthesised in the context of each particular set of data collected).

Chapter seven provided an interpretation of the findings which was undertaken in the context of the literature review and the research questions thus bringing together the findings generated by the use of the various instruments. This chapter was arranged in order of the research questions. This last chapter, Chapter eight, returns to a consideration of the findings of the current research within the context of the research questions but with a view to assessing the extent to which the research questions were answered, the hypothesis elucidated and the study successfully concluded.

8.2. SUMMARY OF THE RESEARCH QUESTIONS

Six research questions developed as a result of the articulation of the research problem and are reviewed below.

8.2.1. RESEARCH QUESTION ONE

Research question one asked:

What is the current situation in South African university law schools with respect to the content, delivery and assessment of legal research instruction?

This research question was partially answered because of the zero response rate from law faculties to the questionnaire emailed to them. Despite this setback much insight into the current situation was gleaned from alternative means as shown below. The research revealed that in 2001 a new LLB structure was agreed to and implemented, concomitant with post-Apartheid changes in the higher education landscape. This new structure reflects a law degree that is now a four year undergraduate qualification, replacing the old three year undergraduate degree plus two year post-graduate law qualification. Although there exists a common core curriculum, each law faculty determines when and exactly what it teaches.

As Chapter two (2.2.7.) indicated, the South African Qualifications Authority's ten standards and exit level outcomes for the LLB training, published in 2002, emphasised skills. These skills include problem-solving, analysis, legal research strategy competency, writing, reasoning, ability to collect, organise, analyse and critically evaluate information and evidence from a legal perspective. The SAQA unit standards do not provide detail about how these outcomes are to be achieved or what constitutes competence in an outcome.

In terms of the survey of law faculty websites (Ch. 6: 6.6), course outlines, where available, indicated commitment by law schools to meeting these outcomes. Fourteen of the seventeen law faculty websites indicated that they offered stand-alone skills modules comprising a range of largely discrete skills components inclusive of numeracy, computer literacy, problem-solving, research skills, reading, writing, and language competency as the most commonly featured skills. Most law faculties offer skills modules in the first year of academic study but several offered such skills education in other academic years of study. The Pietermaritzburg law school appeared to be the only one offering a comprehensive skills module in the second year.

Only four websites indicated which assessment methods were used. What the website survey did not reveal was the exact nature of the content, assessment and processes involved in the teaching and learning of legal research skills and particular approaches or paradigms adopted. This lack of information led to the decision to survey law faculties via a questionnaire. As was noted, no responses to this questionnaire were received despite repeated attempts.

In 2008 however, a workshop sponsored by the Attorneys Fidelity Fund, provided much of the sought after data. Data from this source, together with the literature review and the data collected from the LRWR class concurred in terms of issues and concerns around the teaching and learning of legal research.

Learning is an elusive activity in terms of its attainment and assessment and the paucity of the research skills of new graduates is an international concern as the literature review indicated. In the South African context concerted efforts at a national level are being made to find ways of resolving these problems. The current research adds usefully to this effort in terms of investigating a particular approach to promote research skills education. The LRWR module fleshed out these SAQA outcomes with regard to legal research, within an IL paradigm and an active learning approach.

8.2.2. RESEARCH QUESTION TWO

Research question two was:

What theoretical background is appropriate to the development of the module in terms of learning and teaching in order to develop a theoretical framework for the Legal Research Writing and Reasoning module?

This research question was successfully answered in that the literature review provided broad theory applicable to any learning as well as any formal educational situation; and theory and applied research from specific contexts that enabled a framework for the LRWR module to be developed.

The author has not been trained in teaching and learning as is the case with many librarians who find themselves having to deliver IL programmes. Thus it was

considered necessary to understand the broader educational context in which any module is to be taught and learned in order to be able to develop the LRWR module so that it would reflect good practice, be appropriate and authentic in terms of a particular context. This understanding helped consolidate this knowledge as a framework in which to situate the LRWR module.

Being situated in the higher education context, the LRWR module is credit bearing so consideration needed to be taken of the elements of teaching, learning and assessment. Given the recent changes in the South African educational and political landscape, it was necessary to develop such a framework that took cognisance of these developments and could form a basis from which to continue the development of such a module as Legal research Writing and Reasoning.

The current research established from the literature review that learning needs to be learner-centred and active. The LRWR module was designed in terms of desired outcomes and then how these outcomes could be achieved by the learners rather than only the teacher was explored. The focus of higher education in particular should ultimately be on enabling learners to learn how to learn. In the formal education environment much learning is imposed upon and directed, with students having few choices about what courses to take as is the situation with the LRWR module which is compulsory for all second year LLB and Legal Studies students.

Definitions of and descriptions of the characteristics of learning supplied the author with a multifaceted understanding of the kinds of learning that needed to take place in the module. Learning is a process and comprises content (specific and conceptual), process and a range of environmental factors: institutional, economic, social and so on. Learning encompasses the attainment of skills, knowledge, understanding, higher order critical thinking activities as well as processes that enable the learner to embrace these, reflect on them, perform them and be able to apply them in different situations. It is not sufficient to simply apply processes and knowledge to reinforce ideas but learners need to be able to assess why and how knowledge should be applied. Knowledge and understanding are goals for learning and are linked. There are various kinds of knowledge: declarative, procedural, and

conditional and all three need to be accessed for real learning to take place. Understanding needs to be performed.

Thus the LRWR module was designed in terms of solving a problem so that learners could see research as a process. Some content was declarative in terms of knowledge of sources, referencing, the difference between primary and secondary sources and so on. The module required a range of practical skills in terms of finding and using information sources and tools, reading and writing. Critical thinking skills developed were in terms of problem analysis, search strategy, selecting and evaluating relevant information and building argument and then presenting argument in different ways for different purposes. Students constantly had to demonstrate their understanding through a range of verbal, written and practical exercises such as using sources and databases, discussion and written assignments.

The complexity of learning is reflected in the characteristics of students, namely learning styles and approaches, prior learning, aptitude, backgrounds, personal factors and so on. These are discussed more fully under Question five. Research into learning models has indicated that the constructivist approach has been viewed as an alternative to the behaviourist model. This model or approach requires learners to be actively involved in their learning (see Question four), learning draws on prior knowledge and learning experiences need to be authentic, learning may be collaborative, reflection forms part of the learning process and problem-solving is often a focus. It has been argued that all learners construct knowledge in some way, the constructivists taking a particular approach. The LRWR module thus adopted a problem-solving approach so that learners could not just be passive recipients of information. The problem topic adopted for the LRWR module was one which the students could identify with personally. They could draw upon prior experience but the problem involved finding, evaluating, using and applying new information, covered various disciplines and required students to examine and reflect on the various perspectives of the problem.

The literature indicated that teaching and learning are inextricably linked and that it is the responsibility of teachers to enable learning. There is a need to align teaching and learning and thus assessment in order for meaningful learning to take place.

Teachers need to be coaches and facilitators. Learning should be scaffolded and a variety of authentic teaching and learning activities used to ensure alignment between teaching, learning and assessment. Design is an important feature of the development of learning experiences, incorporating setting objectives which are central to a teaching learning strategy. 'Backward design' has been advocated: starting with the outcomes, then how these outcomes will be measured and obtained, followed by the objectives. The LRWR module design followed these approaches and reflected a variety of teaching, learning and assessment methods appropriate to the outcomes and objectives set for the module.

Broadly, the constructivist approach to teaching requires learning to be active, the teacher is a facilitator, learning is often problem based around an authentic situation, learners interact and reflect. The literature led the author to adopt the design model of Jonassen² who advocated using an ill-structured problem where learners take some responsibility for learning, learning is scaffolded, active, reflective and performative.

The literature revealed some tensions over how problem-solving and research is approached by practitioners and learners in the academic environment. Law schools tend to use cases to show the problem and how it was resolved through the application of principles, whilst for practitioners it is often argued, the problem drives the learning. The LRWR module thus tried to find a middle path between these two approaches and selected a topic that required the students to interrogate the problem and discover the principles before being able to apply them.

8.2.3. RESEARCH QUESTION THREE

Research Question three asks:

What does the design of the Legal Research, Writing and Reasoning module incorporate in terms of an information literacy paradigm?

As far as this author is concerned, this research question was able to be answered successfully through an understanding of the nature of and debates around what IL

² D Jonassen. Designing constructivist learning environments. In: Reigeluth, CM. *Instructional-design theories and models: a new paradigm of instructional theory*. (1999) Vol 2, 215-240.

is and guidelines for how IL programmes should be designed. The goals, objectives and outcomes, outlined in Chapter four reflected the characteristics of IL applied to the situation of legal research.

Information literacy as a paradigm for understanding and interacting with the broader information environment needed to be interpreted in the context of the legal research environment. Hence the nature and characteristics of IL needed to be considered. As the literature review indicated, defining IL has proved difficult and the core definition of the ALA (section 2.1.2.), whilst not sufficient for different models of, and approaches to, IL forms the basis of an understanding of the core activities and processes in IL. IL encompasses an active process and a problem-solving process in terms of content and as a way of learning. The problem of the 'how' of implementing IL programmes was noted and this was the purpose of the current research, to redesign a programme for implementation.

Information literacy is about more than just sources of information. It embraces all the related cognitive activities of topic analysis, search strategy, reading, writing, evaluating, using and applying information, recording and storing it and presenting it in different ways for different needs as well as the experience of searching and interacting with the information environment. It has been suggested that whilst content and specific skills of IL will change over time, particularly given the changes in technology, the conceptual frameworks that IL is built upon will not change.³ The nature of the formal academic environment means that the formalised teaching of IL at undergraduate level may be as a fairly structured and linear process rather than the recursive nature of reality but this may need to be a starting point.

The characteristics of IL made it an ideal paradigm for the LRWR module in particular because the study of law is so inextricably bound up with the published literature and it is predominantly a problem-solving profession. IL provided the foundation for the content, outcomes and objectives of the module. The ACRL standards and guidelines for IL programme development echo all the features of sound learning and teaching: active learning, collaboration, multiple teaching,

³ L Arp and BS Woodard. "Recent trends in information literacy and instruction." (2002) 42(2) *Reference & User Services Quarterly* 127-128.

learning and assessment activities, builds on prior learning, acknowledges learning styles, encompasses reflection and critical thinking. IL learning and teaching has been considered to be largely constructivist in nature.

The final LRWR module design reflected the characteristics of IL, adapted for the legal research environment.

8.2.4. RESEARCH QUESTION FOUR

Research question four asked:

Regarding the types of learning:

- What is deep learning and what is its relationship to active learning?
- What is active learning and how feasible is it to use an active learning and teaching approach in the lecture and large class situation and what will an active learning approach look like in a legal research module?

This research question was successfully answered from a review of the literature in terms of theory and numerous case studies reflecting the application of active learning for the achievement of deep learning in general educational settings as well as those specific to IL in academic libraries and legal research. Observation in the LRWR classes, the reflection exercise and focus groups in particular, indicated that deep learning had taken place albeit to differing degrees and in different ways. Students enjoyed the range of teaching and learning activities and group work. The active learning approach appeared to be feasible within the large class situation although further work is needed in terms of overall class control and accommodating learners who work at different paces.

Given the author's dissatisfaction with the traditional lecture method of delivery for university modules, and one of the goal of higher education being learning how to learn (section 2.3.2.2.), an active learning approach to learning and teaching needed to be investigated as well as its feasibility within the large class situation. Exactly what constituted active learning and the manner and conditions under which it could be made manifest in the classroom needed to be explored. The considerations necessary in designing a module indicate an alignment between teaching, learning

and assessment in order for deep learning to occur. Active learning is purported to support deep learning and how this could be achieved in the context of the LRWR module needed to be researched.

The literature suggested that the aim of any teaching and learning activity is deep learning. Deep learning is preferable to surface learning because deep learning occurs when the learner feels a need to engage with a task in a meaningful way, often because they are interested or motivated to do well. Learners attempt to develop real understanding about what is being learnt. Research has shown (Ch.2: 2.3.3.) that it is explanation, enthusiasm and empathy on the part of the teacher that encourages deep learning. In terms of assessment, activities that encourage students to think for themselves such as problem based assignments and essays tend to shift students towards a deep approach. Students need to show their understandings. To this end the LRWR module provided a topic that students could identify with and required them to examine, substantiate and compare their personal views on the topic with legal, societal and other points of view. Discussion formed an integral part of unpacking the topic. The author participated in discussions, provided positive support and feedback and challenged students to actively participate. Students enjoyed the continuous assessment.

Research questions two and three provided background to and rationale for the integration of an active learning approach in teaching and learning and within the gambit of IL. The constructivist approach advocates active learning and teaching. Active learning has been defined in various ways but it requires that learners be active behaviourally and cognitively and interaction between learners and with the teacher are necessary conditions for active learning. Reflection is an important component of active learning both during and after learning activity. Active learning encourages deep learning.

The LRWR module was developed with an active learning dimension where discussion and particularly higher order cognitive activity were emphasised. Students had to actively demonstrate the content, skills and knowledge of the process. Reflection took the form of end-of-class overviews as well as a specific reflection exercise half way through the module where students had to consciously

consider their own learning up to that point. This reflection usefully showed many students to have thought meaningfully about the research experience, content and processes they had encountered.

8.2.5. RESEARCH QUESTION FIVE

Research question five asked:

- What are some of the characteristics of the student population enrolled in the module and how, if at all, do any characteristics affect the development of the module in terms of teaching, learning and assessment
- What are learning styles, how should knowledge of them influence teaching and learning activities and approaches and which methods need to be employed to accommodate them?

This question was successfully answered in terms of the literature review and the data collected. Any large class contains a diverse student population. Often, usually because of large class size, a 'one size fits all' lecture is delivered to students regardless of their individuality. The factors that characterise students, including learning styles, that may influence the learning and teaching process needed to be investigated to inform design of the module in terms of teaching, learning and assessment approaches. The literature review provided varied descriptions and discussions of the wide ranging characteristics of learners and how these impact on learning and teaching. The literature indicated the large amount of attention given to learning styles, the various ways in which these have been characterised and implications for learning and teaching.

In terms of the data collected about the LRWR class, the questionnaire provided useful demographic data which revealed the diversity of the learners in terms of a number of factors such as gender, race, degree registered for, year of study, computer usage and reasons for studying law. The questionnaire also provided information about some of the work habits of students such as reading, problems with lectures, knowledge and use of information resources and the kinds of activities they would like to have happen in the lecture environment. The questionnaire

responses helped inform the design of and in particular the roll out and emphasis placed on aspects of the module.

The application of the learning styles inventory was only partly successful but it did give an indication of the existence of a range of learning styles and in particular the reproduction style. This style is not helpful for the development of higher order critical thinking skills and the approach of the LRWR module was in some measure designed to encourage learners out of this style. A large percentage of students did not reflect a particular learning style which was unfortunate and the possible reasons for this were explained in Chapter seven. The reflection exercise and focus groups also showed the diversity of student characteristics and preferences for approaches to learning.

Given the range of learner characteristics the LRWR module used a variety of learning and teaching methods. Lectures, demonstrations, writing, reading, worksheets, discussion, group and individual work were used as teaching, learning and assessment methods to accommodate learners. As many learners in the LRWR module exhibited the reproduction directed learning style, the module strove to encourage students to move out of this style through an active learning approach and in particular a problem-solving approach. The findings of the current research do suggest that students were at least challenged in terms of their learning by the different methods used in the module; different activities suited different students to varying degrees and many appreciated the multidimensional nature of learning offered by the module. It was not possible to precisely measure the influence of the variety of teaching and learning activities on student's learning. The data collected indicated that the adoption of a range of teaching and learning activities to match different learning styles had been successful to varying degrees.

8.2.6. RESEARCH QUESTION SIX

Research question six was:

What kinds of assessment are appropriate for a module of this nature and feasible within the large class situation?

This question was successfully answered with respect to the literature and assessment within the module. In the formal education environment summative assessment tends to be the most important and often in the form of exams. A module like LRWR necessitates the assessment of, and preferably authentic assessment of, declarative, procedural and conditional knowledge and practical 'doing' skills and methods associated with legal research. What methods would be most appropriate required an understanding of the nature of, role of, and assessment methods.

A considerable literature exists on assessment generally, namely types, formative, or summative, purposes and appropriateness. Assessment with respect to IL programmes tends to reflect specific IL situations, but with a useful growing body of work on the broader aspects and issues relating to assessment of IL programmes. The ACRL standards specifically endorse the use of assessment as well as specific types of assessment. It appears that it is not clear exactly how IL as a whole should be assessed and in particular how to assess problem-solving. Some authors contend that because IL is more a process than a product, IL will remain difficult to measure.⁴

The literature review indicated that assessment should be informed by objectives and outcomes and there needs to be an alignment between teaching and learning objectives and outcomes and assessment. Assessment activities must thus be authentic and appropriate. Given that the study of law is so heavily biased towards reading and writing, these elements needed to be considered as well. Thus the LRWR module used a variety of assessment methods of differing degrees of difficulty and different formats, along with regular feedback. Assessment was also scaffolded. Some assignments such as those relating to the topic problem supported forward assessment where students knew in advance what the assessment entailed and worked towards fulfilling the requirements. Worksheets and practical exercises helped students gain skills and knowledge incrementally and have these skills and knowledge assessed progressively. The pre- and post-test

⁴ L McCrank. "Academic programs for information literacy: theory and structure." (1991) 116(8) *Library Journal* 486; J Kaplowitz and J Contini. "Computer assisted instruction: is it an option for bibliographic instruction in large undergraduate survey classes?" (1998) 59(1) *College and Research Libraries* 19-27.

administered to the LRWR class was not a satisfactory means of assessing process and higher critical thinking and problem-solving, but combined with other methods of assessment provided a more rounded view of the learning that had taken place in the module. The focus groups indicated that students preferred a range of assessment activities and the timeous feedback.

The range of assessment activities not only provided the students with a range of activities to perform in different ways and thus develop a more rounded view of their progress and learning but it also provided this author with useful information about different aspects of the student's learning which will assist with further module development. This range of assessment methods provided evidence to support the hypothesis that the module improved the research skills and knowledge of the second year LRWR class.

8.3. QUALITATIVE REVIEW OF THE FINDINGS OF THE CURRENT RESEARCH WITH RESPECT TO THE RESEARCH PROBLEM AND THEIR CONTRIBUTION TO KNOWLEDGE

A few broad findings are noted before specifics are dealt with. The research that formed the basis of this thesis consolidated and synthesised existing knowledge and research across a spectrum of disciplines namely education, librarianship and law, in order to provide a sound and holistic pedagogical framework for developing a legal research module within an active learning and IL paradigm for the South African context. This synthesis adds to the growing body of literature particularly in academic HE librarianship, concerning the multidisciplinary approach that should inform the study and practice of IL. This consolidation was used to inform the particular development of, implementation of, and (partial) evaluation of a legal research module in order to determine the feasibility of such a module. This synthesis and development of the module from an IL perspective, built knowledge and skills of students about sources of information and the information environment, but within the context of problem-solving and promoting research as an integral part of being able to find the law in an environment where it is impossible to know the law that is constantly changing.

The LRWR module is unusual in a number of respects. Firstly it is a module the existence of which has been determined by the Law Faculty of UKZN primarily as part of a new LLB curriculum that aims to redress the lack of, and inculcate, necessary skills for legal practitioners, it is not a 'library programme'. Whilst presuming to involve the library, librarians were not consulted as part of the process of the initiation of the module. Yet, library involvement from the Faculty's perspective in Pietermaritzburg was as much as was and is deemed necessary and possible with the author being given free reign to develop the module from an IL perspective.

As an IL type of module, the LRWR module is unusual in terms of its duration, lasting a whole semester, and it is credit bearing. As an IL programme the module provided the opportunity to integrate of a wide range of skills and knowledge endemic to a comprehensive interpretation of what constitutes IL. It focused not only on the 'what', 'how', 'why' and 'where' of information sources, but reading, writing and problem-solving, this breadth being unusual in the South African context. This research also addresses the lack of published literature on legal research by librarians in South Africa.

The research problem indicated that formalised teaching in legal research is needed by students of law because of the existence of a vast array of published sources. The law is constantly changing and developing and new formats of information sources and tools necessitate new approaches to research and new knowledge about the information environment. The legal literature forms an integral part of problem-solving and developing and substantiating argument. The current research provided evidence to support these assertions. The pre- and post-test, questionnaire, reflection exercise and focus groups all indicated the dearth of knowledge and skills students had prior to attending the module in terms of availability of sources, how to find and use them and the characteristics of sources, particularly academic databases. This lack of knowledge was despite the fact that students are introduced to legal information sources in first year, but without much practical exposure or associated learning activities. Only 3.5% of respondents on the questionnaire had used an academic legal database prior to the module.

The reflection exercise in particular, and post-test, also indicated learning had taken place with regard to the research process. The module, designed to provide information literacy to its students, had achieved this literacy with varying degrees of success. The research adds usefully to the body of knowledge about different designs of IL programmes in academic libraries both generally and in terms of specialised content regarding legal research specifically. It revealed a great deal about the problem of research skills and knowledge paucity amongst law students and how these could be addressed.

The research problem of how to design the module necessitated consideration of the complex nature of problem-solving in law. The debates around the nature of problem-solving that should be investigated during an LLB have occurred because of the perceived mismatch between the kind of problem-solving practitioners undertake and those of an academic nature and how these are taught in law schools. The current research investigated this problem-solving process using a hybrid of these problem-solving approaches, and scaffolded the process so that students could understand the dynamics of problem-solving. The processes were consciously and deliberately taught and illustrated with students having to perform their understanding in a variety of ways. This research supports the existing literature about the use of problems as a means of encouraging active and deep learning and teaching process and content.

The various practical exercises and group work around the topic scenario indicated the need for students to work through problems from different angles. Students had been unable to master even the basic FIRAC method despite having been introduced to this method in first year. The questionnaire responses had indicated that problem-solving and aspects of the study of law such as FIRAC, application of the law and presenting argument were things many students struggled with.

The gap between pass rates in the first and second years of study in law at UKZN has been of sufficient concern for an academic development coordinator to be appointed to UKZN Law Faculty to seek to identify and address the problems. The questionnaire administered in the current research specifically identified core elements of the study of law such as writing, applying the law, developing argument

and FIRAC as areas of difficulty which students were experiencing and thus these were specifically targeted within the LRWR module. This information will be useful for expanding and developing the LRWR module and providing formal evidence for the Law Faculty of the nature of difficulties being experienced by students.

The reflection exercises, group discussion and focus groups confirmed that the in-depth approach to solving the particular problem used in the module had fostered deep learning and an awareness of the complexity of problem-solving and the associated research process. The active learning approach and the integration of a range of skills prompted students to think differently about how they worked and to appreciate that problem-solving extended beyond the basic framework provided by FIRAC. These findings suggest that an active learning approach needs to be developed for the study of law.

The name of the module: Legal Research, Writing and Reasoning implies the integration of these specific skills, knowledge and processes that the module achieved in its design and implementation. The interrelationship of these skills, knowledge and processes is critical given that law is an analytical and discursive discipline. The LRWR module provided the opportunity for students to focus in-depth on problem-solving and its relationship to reading, analysis and writing in a variety of ways. The reflection exercise indicated that students had come to a realisation of the importance of this interrelationship between these skills and knowledge. The range of assignments had provided the practical opportunity to use these skills in tandem for particular situations and see how they fitted together.

One of the reasons for developing the LRWR module from an active learning perspective was to deviate from the more passive learning accentuated by the lecture method and provide an opportunity for students to take some responsibility for their learning. The condensed LLB degree from a five year degree to a four year undergraduate degree has also meant that students have had little or no exposure to independent researching prior to second year and are under increased pressure to perform and learn skills. In the final year students have to participate in a Moot so the process of developing critical thinking and research skills in a highly scaffolded environment such as the LRWR module provides a 'safe' environment in

which to experience a thorough and formalised introduction to the range of core skills and knowledge which would be required for learning in the final year. In the question about specific skills legal practitioners should have, on the questionnaire administered to the LRWR class, legal research skills were ranked fifth (11.8%) by respondents. A survey of third and fourth year law students at two South African universities⁵ asked students to indicate and rank what they thought to be the seven most important courses, five most important skills and five most important values to be learned at law school. The respondents (202 students in total) ranked legal research and problem-solving as the second most important skill after trial advocacy. The low percentage of responses by the LRWR class about legal research skills being important skills for a legal practitioner, perhaps indicate that at second year level students are unaware of the importance of legal research to the study of law, for whatever reason. By the time of the closing two years of the LLB students have come to appreciate the importance of legal research and problem-solving, if the abovementioned survey is indicative of the process of learning during the LLB. The feedback in the current research indicated that a holistic approach to legal research and problem-solving via the LRWR module in second year is necessary for students to obtain a good grounding and appreciation for legal research early in their degree. Using an ill-defined problem that presents a number of possible solutions helps students understand that there is no model answer and research is necessary in order to be able to make an informed decision.

The research problem also noted the diversity of the student body enrolled in the module and how best such a module should be taught and what the nature of the content and level of detail should be. The diversity of the student population was multifold. This particular module caters for students who are registered for the LLB degree as well as those from other degrees who are majoring in Legal Studies. Thus the population was being exposed to a range of problem-solving and study approaches for different disciplines. Students came from a range of language, racial and socio-economic backgrounds and vastly different kinds of schooling and thus preparedness for university. Students also have different learning styles and

⁵ McQuoid-Mason, D. *Using your imagination to light up knowledge, skills and values for LLB students: lessons from South Africa*. Keynote address at LILI, 2006.(2006).
www.ukcle.ac.uk/interact/lili/2006/papers/keynote2.html?&pp=1. Accessed: 16.8.2007.

abilities. Despite all having experienced the same first year law modules, the introductory nature of first year does not appear to have prepared students adequately for the second year of study. Thus the LRWR module needed to develop content and learning and teaching approaches that could cater for this diverse group. The questionnaire, reflection exercise and focus groups reinforced the sense of diversity of this group.

The nature of the development of this particular module allowed for experimentation with an approach that catered for diversity in a number of ways. Whilst students generally indicate that the LRWR module is the 'easiest' of the second year modules, it cannot really be compared to substantive modules because it is so different from such modules. The assignments during the module showed that students did experience considerable difficulty with actually bringing all the skills and knowledge to bear on written assignments. The degree of difficulty inherent in the module, that is, the level at which the module should be pitched will have to be explored further and may well change over time.

The current research while indicating areas for further research and experimentation, provides a coherent body of knowledge and evidence from a librarian's perspective for the Law Faculty. This base could usefully be the starting point for collaboration with academic teaching staff and possible integration into other IL programmes at UKZN and further afield.

8.4. IMPLICATIONS OF THE RESEARCH FOR THEORY

The current research has implications for the wider body of theory in librarianship, particularly academic librarianship, and related disciplines. The contribution is as follows:

- Despite the ongoing debates around a definition of information literacy, amongst academic librarians there is some agreement about a consensual core of skills and knowledge, and concern in the library world has been rather with the 'absence of a clear line of action and the will and practical chance to implement it.'⁶ The ACRL Research Agenda⁷ has added to this

⁶ EK Owusu-Ansah. "information literacy and the academic library: a critical look at a concept and the controversies surrounding it." (2003) 29(4) *Journal of Academic Librarianship* 220.

acknowledged deficit saying that much research also still needs to be done in terms of pedagogy, methods, design and implementation of IL programmes and effective teaching models given the holistic approach required by the nature of IL. The current research reflects an attempt to design an IL programme in terms of sound pedagogy, methods, design and implementation as well as reflect that research that advocates the need to incorporate generic and context or subject specific skills and knowledge.

The current research has provided an in-depth theoretical and multi-faceted empirical study of the design and implementation of an IL programme that takes cognisance of the holistic character of IL with respect to content, skills and knowledge, learning and teaching methods and assessment. The time period over which the LRWR module was conducted allowed for fairly detailed exploration of facets of design and implementation as well as testing and evaluation.

- Many librarians acknowledge that IL is an active process and reflects or should reflect a constructivist approach. Practicalities such as time for IL programmes conducted by librarians, do not always allow for such an approach to be adopted or fully explored. For instance the author could find only one published article that applied the model of Jonassen to IL programme design.⁸ The current research provides an example of the detailed design and implementation of an extensive IL programme from an active learning and constructivist approach. It thus contributes to the library literature on programme design in practice, but also with regard to the application of a model for such practice and how a model can be extrapolated for particular learning situations.
- The importance of being able to assess learning in IL programmes has been the subject of debate in library circles and is reflected in the ACRL standards. This is covered in 8.2. The published South African library literature reflects

⁷ ACRL IS. "Research agenda for library instruction and information literacy." (2003) 25 *Library and Information Science Research* 479-487.

⁸ AS Macklin. "Theory into practice: applying David Jonassen's work in instructional design to instruction programs in academic libraries." (2003) 64(6) *College and Research Libraries* 494-500.

a dearth of information on assessment. The University of KwaZulu-Natal is no exception. The current research provided practical evidence of the use of a range of formative and summative assessment methods.

- The current research contributes to the body of knowledge on teaching and learning legal research for various reasons. It consolidates and expands the broad theoretical framework for teaching and learning legal research within an information literacy paradigm in the South African context. A survey of the South African published literature reveals an absence of the documentation of holistic practical information literacy programmes in South Africa in general and for legal information literacy in particular. The South African writing on legal research and lawyering skills has been undertaken by legal academics rather than librarians. There is no published evidence of legal research modules in South Africa being deliberately developed from a constructivist or active learning approach. For this reason the contribution of the current study is original.
- The published South African literature also suggests an absence of attention to the holistic design of information literacy programmes that take cognisance of the spectrum of elements suggested by the research questions presented in this thesis. The current general library training does not teach librarians to teach. While some literature in South Africa has investigated quite carefully the knowledge and skills librarians need in order to be teachers of IL,⁹ a formal comprehensive synthesis of all these knowledge and skills, applied to practical programmes is absent. Thus the current research addresses this gap.
- The disciplines of education, educational psychology and library and information science, information technology and in fact many disciplines, acknowledge the importance of understanding the learner and in particular learning styles. The author could find no evidence in the South African literature of the application of Vermunt's ILS. Writing acknowledging the

⁹ D Selematsela. *Strategies in information literacy instruction in academic information services*. (2006).

importance of learning styles in the education literature outstrips writing about the application of learning style instruments. While there is still ongoing debate as to the appropriateness of imported learning tests in South Africa, the current research usefully adds to the evidence about the range of learning styles that are present in any learning situation and how such information may be used to inform learning and teaching approaches.

As the literature indicates an increasing recognition of teaching, learning and assessment needing to be learner centred, it is important to understand as far as possible the characteristics of learners in any learning situation. As Bruce points out,¹⁰ ultimately, each person's encounter or experience of the information environment is unique, so knowledge of the characteristics of learners only assists in furthering understanding of how learning and teaching might be aligned, and does not provide the whole reality.

- Much of the literature drawn upon was taken from disciplines beyond librarianship which reinforces the integral role of these disciplines to IL, particularly education and educational psychology, as well as specific disciplines where IL is context specific.
- Methodologically the current research adds to the theory of case study research. In terms of the characteristics of any case study in any discipline, but particularly in the social sciences, the current research reflected a case study which was a defined cohesive unit, with temporal and geographic parameters and a defined population. The case study employed a range of data gathering methods and collected both qualitative and quantitative data in order to provide a thick description of the case. This case study also served to indicate how the aspects of triangulation, validity and reliability were met which is core to any research of this nature.
- The current research is unusual in the South African library science research setting for its use of multiple methods and a combination of qualitative and

¹⁰ C Bruce. "The relational approach: a new model for information literacy." (1997) 3 *New Review of Information and Library Research* 1-22.

quantitative methods. As Ragin claims¹¹ the 'primary goal is to link the empirical and the theoretical – to use theory to make sense of evidence and to use evidence to sharpen and refine theory....cases are invoked to make the linking of ideas and evidence possible.' The current research also used a case study to 'provide insight into an issue or revise a generalization,'¹² that being how best to design a legal information literacy module that was feasible given the range of factors that had to be considered for a particular situation.

Case studies have been criticized for their lack of generalisability.¹³ Some authors have taken the view that as a case is often situated in a theoretical framework, the case study contextualises the framework within the generalisation, thus adding to or negating the body of knowledge,¹⁴ this contextualisation not being equated with being context specific. The case study allows for the playing out of the general in specific circumstances, offering potential to support the generalisation, whilst being able to expose anomalies because of the in-depth treatment a case study allows. Most treatments or learning takes place in a particular context and the learning of generic skills is activated when required in a specific context. Thus case studies form the building blocks of generalisation. The oft quoted work of Marton and Saljo¹⁵ in terms of deep and surface learning originated from a case study for example. The LRWR module was situated within a generalisable framework but context specific.

As indicated in Chapter three, in terms of attributes, what contributes to generalisability is how similar the attributes of the case are to the general population; the range and number of relevant attributes that are similar within the overall population and the case and the number of unique attributes emerging from the case study – fewer unique attributes means less

¹¹ CC Ragin and HS Becker. *What is a case? Exploring the foundations of social inquiry*. (1992) 3- 9.

¹² D Silverman. *Doing qualitative research*. 2nd ed. (2005) 127.

¹³ L Cohen, L Manion and K Morrison. *Research methods in education*. 5th ed. (2000) 183-184.

¹⁴ H Simons. "The paradox of case study". (1996) 26(2) *Cambridge Journal of Education* 227.

¹⁵ F Marton and R Saljo. "On qualitative differences in learning: I - outcomes and process". (1976) 46 *British Journal of Educational Psychology* 4-11; F Marton F and R Saljo. "On qualitative differences in learning: II - outcome as a function of the learner's conception of the task." (1976) 46 *British Journal of Educational Psychology* 115-127.

interference with generalisation. In terms of the treatment Kennedy¹⁶ claims that when the case study incorporates attributes which the treatment is designed to influence such as aspects of undertaking legal research, as well as those attributes known from prior knowledge that affect the above such as reading and writing competence; as well as attributes considered to be relevant to the required outcome hypothesised by other research, the possibilities for generalisation are increased.

The current research is important for its in-depth study of an IL programme in which the theoretical framework was studied in detail in situ. It did, however, incorporate common attributes in terms of the design of the module. The methods and design could thus arguably be said to be generalisable

Flyvbjerg¹⁷ argued that case studies allow for the realisation of context-dependent knowledge that is as important as context-independent knowledge. He claimed that it is only within a context that anomalies might be discovered but at the same time the case study may support general rules and propositions. He indicated that within learning itself the case study is important for understanding how general rules apply. He also claimed that case studies are as good for testing as generating hypotheses. The current research successfully used the case study as an opportunity to test an hypothesis

- Lastly, for South African librarianship, this study provides much needed in-depth research from the perspective of the academic librarian / practitioner.

8.5. IMPLICATIONS OF THE RESEARCH FOR PRACTICE

The current study contributes to practice in a number of ways:

- In terms of the education of librarians the current research suggests a possible core curriculum framework for a module in teaching and learning in South Africa. The generalist training of librarians in South Africa in particular

¹⁶ MM Kennedy. "Generalizing from single case studies". (1979) 3(4) *Education Quarterly* 661-678.

¹⁷ B Flyvbjerg. Five misunderstandings about case-study research. In: Seale, C. ... et al. (eds). *Qualitative research practice* (2004) 421 – 424.

does not encompass 'teaching how to teach' nor the in-depth examination of information literacy.

- If some of the members of the Committee of Higher Education Libraries of South Africa (CHELSA) (see Ch.1: 1.1.3.) view IL as anything a library does to serve its users, then there is an urgent need to broaden the debate and research into what IL should be in the South African higher education context, for both library science students and practitioners. Forums for this include CHELSA itself, journal article publishing, interest groups of the Library and Information Association of South Africa, LIASA, and conferences.
- It further reinforces the notion and research that the theory of learning, teaching and IL can be applied in different disciplinary contexts. Academic librarians need to re-examine their practical 'library instruction' sessions in terms of IL as considered in this research. One of the challenges will be to think in terms of developing IL for programmes of short duration.
- The current study has shown that IL programmes can be assessed and can and should incorporate a variety of teaching, learning and assessment techniques and these should be explored more vigorously across the spectrum of IL programmes which academic librarians find themselves involved in.
- It should provide a springboard for further conversations and cooperation and collaboration with the UKZN Law Faculty, and investigation of the integration of IL into other discipline based modules.
- It provides a baseline from which to review and develop the LRWR module in terms of content, process and teaching and learning activities.

8.6. LIMITATIONS OF THE RESEARCH

The current research was a one-off case study of a second year undergraduate LLB class on the Pietermaritzburg campus of the University of KwaZulu-Natal. Whilst

the class was fairly large, over 130 students, a large percentage of whom participated in the research, it was the only situation studied so there are no possibilities for direct local comparison within law or with other disciplines.

8.7. IMPLICATIONS OF THE STUDY FOR FURTHER RESEARCH

The current study has highlighted some areas for further research. These include:

- Although the cohort of Masters students studying law at UKZN is small, they have particular difficulties. Many of them are practitioners, studying part-time, and have been out of the academic environment for some while. Many are not familiar with the electronic published legal sources of information and the process of producing researched written academic work. On the Pietermaritzburg campus there is no formal research methodology programme for these students. The feasibility of developing a research programme for such students from an IL perspective similar to that for the undergraduate class in terms of framework and approach needs to be investigated.
- The current research should form the basis of a proposal to the South African Attorneys Fidelity Fund to formally investigate the nature and practice of legal research training in South Africa with a view to creating awareness of the nature of IL and how it may help the study of law, and the role librarians can play in the implementation of IL programmes. Such an investigation should include academic staff and law librarians. Such an investigation could form the foundation for a national core curriculum for legal research.
- Further investigation of methods of assessment for IL programmes should be undertaken. At UKZN in particular, there is little formal assessment of any IL programmes undertaken by the Library. Some undergraduate programmes include worksheets or assignments, often set by the lecturer of the module. Establishing formal outcomes and objectives for IL programmes would and should facilitate the development of some form of assessment. As was noted in Question six earlier in this chapter, traditional assessment methods do not comfortably fit all the kinds of skills and knowledge IL incorporates. In the current research, self-assessment and the use of portfolios were not very

successful and these are particular methods that need researching. The opinion assignment indicated that assessment rubrics needed further development.

- A dimension not researched in the current study was that of information seeking behaviours. Such research would usefully inform the design of teaching, learning and assessment activities.
- Development of methods for evaluating IL programmes is needed. Because LRWR is a credit bearing module it is subjected to the three year cycle of formal evaluation required by the University. This particular evaluation, whilst being able to be modified for specific purposes, is unsatisfactory for the comprehensive evaluation of LRWR. Also, one of the problems encountered in many modules, including LRWR, is the fall off in class attendance as the semester draws to a close so it is difficult to obtain high participation rates in evaluations. An appropriate evaluation for the module needs to be developed.
- Development of good practice guidelines for IL programmes in university libraries in South Africa is lacking. While some work has been undertaken at different institutions and consortia concerning the establishment of standards and guidelines, there exists no national guidelines at this time.
- It would be useful to undertake longitudinal studies of students' learning styles and approaches to establish if there is change over time. The fact that there has been noted a large increase in failure rates between first and second year suggests that further investigation is needed into learning styles and approaches as two aspects of learner characteristics in order to facilitate more effective learning and teaching activities.
- Given the growing dominance of the electronic environment it would be prudent to investigate the integration of computer aided learning into the module and the production of an online version of the module. The current

subject support page for law on the UKZN Library's website needs to be upgraded and developed as one of the resources for students to use for the module.

8.8. CONCLUSION

This chapter has reviewed the research problem and the research questions of the current study, and returned to the hypothesis, and considered how successfully the findings of the study engaged the research problem. The research problem related to the particular characteristics of the study of law in the South African context and on the Pietermaritzburg campus of the University of KwaZulu-Natal in particular and the feasibility of designing the Legal Research Writing and Reasoning module from an active learning approach and from an information literacy paradigm. The background to the problem was multifold in terms of undergraduate students of law being under-prepared for the rigours of university and lacking in knowledge and skills of research skills. The study of law is information resource dependent and incorporates a range of approaches to reading and using the literature as well as to problem-solving which are not necessarily seen the same way by practitioners and academics. The legal literature is vast and constantly changing so it is vital that students of law know where and how to find and access information. The changing higher education and legal education landscape in South Africa since 1994 have necessitated new ways of thinking about teaching and learning law, including a new focus on a range of skills.

Constrained within the formal lecture structure of university teaching, the compulsory module called Legal Research, Writing and Reasoning needed to be redesigned to take cognisance of the complex interrelationship between teaching, learning and assessment and IL and the new demands of national standards for legal education. A new approach to the delivery of the module that would authentically accommodate the behavioural, cognitive and critical thinking skills needed to be sought. To this end the LRWR module was designed from an active learning approach within an IL paradigm.

The research problem led to the development of six research questions and an hypothesis. The research questions concerned the current practices at law faculties

in South Africa; the theoretical background underpinning the development of the module in terms of teaching and learning; the implications for the module of an IL paradigm; active and deep learning and student characteristics and how they affect learning and teaching, and assessment. The literature review underpinned all research questions. This chapter briefly surveyed the findings of the research questions within the context of the existing research literature and the data collected via a range of instruments. These instruments were chosen because of their suitability for collection of particular kinds of data.

The LRWR module design fitted within the general theoretical framework espoused by the literature in terms of teaching, learning and assessment. The literature and case studies concerning IL indicated that IL programmes are taking cognisance of this broad theoretical framework and IL provides a way of learning within the information environment. IL as a strategy for problem-solving is an active process and usefully integrates the amalgam of skills and knowledge around the experience of needing, finding and using information in many formats and via a variety of tools, reading, writing, critical thinking and presenting a solution or development of knowledge. Legal research is but one context in which an IL paradigm can be applied. One of the problems for many librarians is the 'how' and opportunity for developing and implementing IL programmes. The LRWR module provided the opportunity to develop legal research within the IL paradigm, accommodating all facets of the associated processes and content acknowledging the possible constraints provided by the formal lecture structure.

The data collected from a questionnaire and learning styles inventory supported the findings in the literature that university classes comprise a diversity of students for a variety of reasons. No two learners learn in the same way or at the same pace and teaching and learning activities need to accommodate this diversity and support different approaches and styles of learning. The pre-test, questionnaire and reflection exercise indicated a dearth of skills and knowledge within the LRWR class about the research process and legal information sources in particular. The questionnaire and reflection exercise and later the focus groups showed that students had different preferences for learning and teaching activities. The LRWR module was designed in terms of these learner differences and lack of skills and

knowledge and adopted an active learning approach that incorporated a range of learning, teaching and assessment activities. A particular problem-solving model was used as an instance of active learning. The reflection exercise and focus groups and observation indicated that students had enjoyed the active learning approach, had experienced deep learning and had acquired, applied, practiced and performed new skills and knowledge. The various written assignments and the post-test showed that the students in the module had improved significantly in terms of legal research skills and knowledge as a result of the intervention of the LRWR module. The data collected, assignments and assessment activities also indicated areas needing further development in the module.

Overall, the research questions were successfully answered with reference to the literature and data collected. The lack of responses to the questionnaire sent to law faculties was partially filled by data garnered from the survey of websites and the author's participation in the 2008 workshop for law teachers relating to skills, sponsored by the Attorneys Fidelity Fund.

This chapter has also provided a broad qualitative overview of the research's contribution to the body of knowledge as well as theory. This research has provided evidence of the applicability of general theory to a case as well as a detailed case study of this theory in a specific context. This case study also reflected the theory of case study research and the use of qualitative and quantitative methods within one study in order to provide a rich description of the case. This module design has been a useful addition to the body of knowledge in IL in terms of design, assessment and the 'how' of implementation of an IL programme.

In terms of practical application this research has usefully added to the dearth of published writing in South Africa on the teaching of legal research and comprehensive IL programmes and how IL might be interpreted and applied in the South African context.

The implications of the current research for further research are considerable given the current apparent lack of national coordination of activity with regard to legal research, IL in academic libraries and the role of librarians in IL activities. In terms of

the LRWR module further research is necessary in terms of knowledge and skills around sources of legal information, development of assessment activities and group work.

The current research indicated that not only could a legal research module be designed and implemented from an active learning perspective but it was feasible to do so within the large class situation in a complex environment.

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APPENDIX ONE
LRWR MODULE TEMPLATE

Template for the Internal Approval of Modules at the University of KwaZulu-Natal

A. Academic Quality of the Module

1. Title of module

Legal Research, Reasoning and Writing

2. Module code

3. NQF Level 7

4. Credit value of the module 8

5. Field / sub-field Law, Military Science and Security

Discipline Law

6. School offering the module Faculty of Law, University of KwaZulu-Natal

7. 7.1 Programme(s) on which the module will be offered

LLB, B Com, BA, B Soc Sc

7.2 Pre-requisites for the module

None

8. Existing Module

9. Purpose of the module

Provide the learner with a thorough introductory grounding in the multifaceted process of research, and in particular legal research, and to enable the learner to situate the interrelated activities of research, writing, reading and reasoning in a practical and realistic (South African) context

10. Statement of specific learning outcomes for the module

Learners will be able to:

- Describe and demonstrate the process of undertaking an assignment from topic analysis to production of the final assignment
- Demonstrate how to analyse a topic, formulate a search strategy and find information for a range of situations

- Describe and explain the main categories of information sources in law and the advantages and disadvantages of the various formats
- Describe how information is presented in each one of these categories of sources and explain how to find and use the sources
- Describe and explain how the various indexes of the different sources of information are arranged and be able to use them to find information for a given topic
- Explain and demonstrate how to evaluate sources of information
- Present a legal argument so as to demonstrate an understanding of the legal issue involved and the application of the law.
- Explain the purpose of referencing and footnoting and apply referencing techniques to a piece of legal writing according to a specified format
- Present a written assignment so as to demonstrate an understanding of the application of particular stylistic and formal requirements for written work

11. List of content topics

- process of legal research
- problem-solving approaches
- topic analysis
- information environment: print and electronic
- categories of sources of information, sources of law
- evaluation of sources
- critical thinking, reasoning
- application of the law
- reading
- legal writing
- footnoting and referencing
- plagiarism

12. Types of delivery and estimated notional study hours per type

The total notional study hours required to complete the module is 80.

Student activity	Number of notional study hours (for the whole module)
Lectures/seminars	16.5
Practicals & tutorials	8.25
Tests	2
Sub-total: No. of contact hours	24.75
Self-directed study	10
Study on assignments	37
Test preparation	8
Other (specify)	
Sub-total: No. of notional self-study hours	55
Total: No. of notional study hours required to complete the module	80

13. Teaching-learning methods used on the module

Learners are required to attend and participate in all lectures and practicals. The lectures and practicals are structured to facilitate the transmission, demonstration and application of content, skills and understanding of processes, through a mixture of presentation, discussion and exercises.

13.1 Learners are required to complete a range of tasks, individually and in groups, in lectures and practicals, which will demonstrate their ability to understand and apply techniques and skills that are central to legal research, reasoning and writing.

13.2 Learners are required to undertake a range of tasks to demonstrate their ability to practically execute all necessary steps in the research, reasoning and writing process.

13.3 Learners are required to complete several tasks to

demonstrate their conceptual understanding of the process and the skills of legal research, reasoning and writing.

14. Statement of assessment criteria

For a range of specific situations, learners will:

- have to identify and apply the steps and activities of topic analysis and problem-solving
- identify, locate, use and evaluate a range of sources of information
- demonstrate the ability to read, write, reason by presenting a coherent answer in written form for a range of situations
- demonstrate the ability to cite correctly

15. Methods of assessment to be used in the module (indicate the weighting for each method)

- Learners perform a series of progressive developmental tasks in order to become familiar with the steps in the process and sources of law. These tasks will be completed during lectures and independently (60% of the total marks)
- Learners perform an independent legal research exercise on an authentic topic in order to apply knowledge learnt (20% of the total marks)
- Learners undertake a written test to assess conceptual understanding of module material (20% of the total marks)

16. What educational provision is made on the module to support students from diverse / disadvantaged backgrounds?

- Multiple tasks in a range of formats are undertaken in order for students to reinforce and understand skills
- Extra tuition and guidance will be provided for those learners who lack necessary skills
- Tutorials and group work enable peer assistance
- A set of notes is provided
- Students may repeat some exercises.

Library
University of KwaZulu-Natal
Pvt Bag X014
Scottsville
3209

July 2008

Dear

Thank you for agreeing to complete a questionnaire for me. The questionnaire should take about 10 to 15 minutes to complete.

I am currently registered for a PhD in the Department of Information Studies on the Pietermaritzburg campus. As law librarian I am involved in the teaching of aspects of the Legal Research Writing and Reasoning module in the Pietermaritzburg campus law school. My thesis is concerned with developing an active learning approach to the teaching of this module. As part of the background to the thesis I wish to establish what the position is with regard to the existence of and nature of equivalent type modules in law schools in South Africa.

Please note that all information supplied by yourself will be treated in the strictest confidence and no names will be mentioned in the thesis. It is my intention to provide an overview without any reference to particular institutions.

My supervisor is Professor Christine Stilwell from the Department of Information Studies and this questionnaire has been approved by her.

The questionnaire is being sent as a word attachment rather than an online survey because of problems with the network.

Please would you be so kind as to return the completed questionnaire to myself at kuhn@ukzn.ac.za at your earliest convenience.

Many thanks for your cooperation

Yours faithfully

Rosemary Kuhn

APPENDIX TWO
QUESTIONNAIRE TO LAW SCHOOLS

QUESTIONNAIRE ON THE NATURE OF AND STATUS OF FORMAL 'LEGAL METHOD' AND LEGAL RESEARCH SKILLS AND KNOWLEDGE AND THEIR TEACHING AT SOUTH AFRICAN LAW SCHOOLS

This survey uses the terminology Legal Method to refer to that range of skills and knowledge needed by law students, outside of substantive legal knowledge and excluding professional training. It is acknowledged that different institutions use different names for Legal Method where it constitutes a module and content may vary. Legal research is considered to be part of a Legal Method package of skills and knowledge. Legal research includes all skills and knowledge relating to the process of identifying, selecting, retrieving, applying and presenting information for a particular need.

This questionnaire is primarily concerned with Legal Method type skills and knowledge at the undergraduate level.

GENERAL INFORMATION

1. How many students are registered for an LIB in each year of study on your campus? Please fill in the numbers of students in the table below

Year of study	Number of students
First year undergraduate	
Second year undergraduate	
Third year undergraduate	
Fourth year undergraduate	

2. Does your faculty offer a Legal Studies or equivalent major for **non LIB** students? Please tick in the appropriate box next to the relevant option below.

Yes		No	
------------	--	-----------	--

3. If your answer to the above question is yes, approximately what proportion of these non LIB students make up the total number of students at each year of study? Please indicate the percentages in the boxes provided below

Year of study	Percentage of Legal Studies students or non LIB students
First year undergraduate	
Second year undergraduate	
Third year undergraduate	
Fourth year undergraduate	

The literature indicates that there is no universal consensus about which skills and knowledge, outside of strictly substantive courses, law students should be educated in and whether it is the responsibility of law schools to teach these. Most South African law schools are taking responsibility for some for this training.

4. What does your faculty consider to be the most important bundle of non substantive skills and knowledge necessary for LIB students to have? Please list them in the space provided below:

5. What professional and practically orientated modules and / or activities does your faculty require LIB students to undertake as part of the requirements for the LIB ?

6. If your faculty offers a Legal Method type module, which particular skills and knowledge from those mentioned above, and other, are taught in the Legal Method module and why? Please answer in the space provided below:

7. This question ascertains the existence of formal training / teaching of Legal Method and the format that this training / teaching takes.

What is the **main** format in which your faculty formally provides Legal Method skills/knowledge acquisition of the above? Please tick in the appropriate box/s next to the relevant option provided below:

Format for provision of skills / knowledge	
A single stand alone module in a particular year for a bundle of skills/knowledge	
Several stand alone modules for a bundle of skills/knowledge in each of several years	
Discrete part of a module/s for a <i>particular</i> skill/knowledge in a particular year (name the skill)	
Discrete part of a module/s for a <i>particular</i> skill/knowledge across various years (name the skill)	
No special module, integrated into substantive module/s and not given special treatment	
Other, please specify	

If your faculty does not offer a specific module or module component in Legal Method, please go to Question 13.

8. If a formal module or component is dedicated to Legal Method, is there a particular year in which the teaching of the Legal Method skills and knowledge is offered that is considered to be the most important year? Please tick the appropriate year in the boxes below.

First year	Second year	Third year	Fourth year	Fifth year

9. Is/are Legal Method skills and knowledge module/s compulsory for LIB students? Please tick in the appropriate box next to the relevant option provided below:

Yes		No	
------------	--	-----------	--

10. If your law faculty offers Legal Studies modules or equivalent to non LIB students is/are Legal Method skills/knowledge module/s compulsory for these students? Please tick in the appropriate box next to the relevant option provided below:

Yes		No	
------------	--	-----------	--

11. If your answer to the above question is Yes, do these Legal Studies or equivalent students attend the same classes as the LIB students? Please tick in the appropriate box next to the relevant option provided below:

Yes		No	
-----	--	----	--

12. Is/Are Legal Method skills and knowledge module/s and courses credit bearing? Please tick in the appropriate box next to the relevant option provided below:

Yes		No	
-----	--	----	--

LEGAL RESEARCH

13. How do you define **legal research**?

14. If **legal research** is taught in your faculty, is it taught primarily as a stand-alone module or as part of a stand-alone module, or is it taught in substantive courses? Please tick in the appropriate box next to the relevant option provided below.

Taught primarily as a stand-alone module	
Taught primarily as part of a stand-alone module	
Taught in substantive courses only	
Taught primarily as/or within a stand-alone module and reinforced in substantive courses	

15. If **legal research** is taught in your law faculty, is it taught independently from other skills and knowledge or is it taught in a manner that integrates it with other activities? Please tick in the appropriate box next to the relevant option provided below:

Taught independently of other activities	
Taught as part of an integrated whole	

16. How much time is allocated to **legal research** specifically within a module/s or as a module/s? Please fill in the box provided below:

Legal research as a percentage of time allocated to Legal method activities	
--	--

17. Is any particular paradigm or framework adopted for teaching **legal research**? Please answer in the appropriate box next to the relevant option provided below:

Yes		No		Uncertain	
------------	--	-----------	--	------------------	--

18. If your answer to the question above was yes, what is the nature of the paradigm or framework? Please answer in the space provided below:

19. What content is included in the **legal research** module/s and/or component/s? Please indicate from the options provided below by placing a tick in the box to the right of listed options. Tick as many options as are relevant.

Content covered in a legal research module / module component	
Topic analysis including FIRAC	
Knowledge of primary and secondary sources	
South African sources	
International sources	
Print sources	
Legal texts including encyclopedias and reports such as those of the SA Law Reform Commission	
Journals	
Law reports	
Statutes	
Government publications eg gazettes	
Other, please specify	
Electronic sources	
Jutastat	
LexisNexis suite (SA)	
LexisNexis Professional (UK)	
Sabinet	
Westlaw	
Ebscohost	
Legal websites, please specify	
Other, please specify	

Search strategy	
Evaluation criteria for selecting sources of information	
Legal reasoning	
Application of the law to specific circumstances	
Reading academic texts, and legal sources	
Writing for different legal contexts eg opinions, letters of advice – please specify	
Footnoting and general referencing	
Other/s, please specify	

20. What method/s of delivery is/are used in the teaching of **legal research**? Please answer in the space provided below:

21. What teaching and learning aids are used in the **legal research** module/s and/or component/s?

22. A) How much time is given to practical work in **legal research**? (Practical work here includes any hands on tasks such as usage of sources of law; worksheets and so on). Please answer in the boxes provided below:

Number of hours devoted to practical work	
Number of hours devoted to practical work as a percentage of the total time devoted to the Legal Research module / component	

B) What is the nature of the practical work for **legal research**? Please answer in the space provided below:

23. What is the nature of assessment for **legal research**? Please tick in the appropriate box below.

Formative	
Summative	
Both formative and summative	
Other, please specify	
Not applicable	

24. What **methods** do you use to assess **legal research** skills and knowledge? Please answer in the space provided below.

25. Who plans, teaches and assesses **legal research** in your faculty? Please tick in the appropriate box next to the relevant option provided below:

	Planning	Teaching	Assessment
Academic law faculty staff only			
Library staff only			
Combination of academic and library staff			
Staff external to the law school			
Other, please specify			

LEGAL METHOD and LEGAL RESEARCH: GENERAL

26. For how long has there been emphasis on the formal acquisition by students, and teaching of, non-substantive skills in your LIB degree? Please answer in the space provided below:

27. What factors do you believe have led to the introduction of Legal Method modules/s and/or component/s? Please answer in the space provided below:

28. A) Do you think that attainment of **legal research** skills/knowledge is a particular matter for concern that need to be addressed? Please tick in the appropriate box provided below, next to the relevant option:

Yes	
No	

B) If your answer is yes, please explain your answer in the space provided below:

29. A) Do you feel the current Legal Method module/s is/are satisfactory in teaching students basic skills and in particular research skills? Please tick in the appropriate boxes provided below, next to the relevant option:

Yes	
No	

- B) If your answer to the above question is No, please explain your answer in the space provided below:

30. What, if anything, do you see as the current weaknesses, shortcomings, constraints or problems of the Legal Method and / or legal research module/s and/or component/s in terms of teaching method, assessment and content? Please answer in the space provided:

A) Teaching method/s

B) Content

c) Assessment

d) Other, please specify

31. Do you envisage any changes to the teaching of the Legal Method and legal research module/s and/or component/s in the near future? Please tick in the appropriate boxes provided below, next to the relevant option:

Yes	
No	

32. If your answer to the above question is Yes, please explain what these changes will / might be and why?

33. Any further comments ?

Thank you for your participation.

Rosemary Kuhn

APPENDIX THREE
QUESTIONNAIRE TO THE LRWR CLASS

LEGAL RESEARCH, WRITING AND REASONING QUESTIONNAIRE 2006

This questionnaire forms part of an approved PhD study in the Department of Information Studies, University of Kwazulu-Natal, Pietermaritzburg

Please note that this questionnaire is anonymous and all information provided is treated in the strictest confidence

1. Please indicate which degree you are registered for by placing a tick in the relevant box

LLB	BA	B Social Science	B Comm	Other, please specify
-----	----	------------------	--------	-----------------------

2. Please indicate your year of study by placing a tick next to the appropriate option:

First year _____ Second year _____ Third year _____ Fourth year _____ Other (please specify)

3. Please indicate (tick option) your gender : Male _____ Female _____

4. Please indicate (tick option) your race group : African _____ White _____ Indian _____ Coloured _____

5. Why are you studying law? Please tick option/s that reflect your main reason/s for studying law.
More than one option may be indicated

Always wanted to study and practice law	
Parental pressure	
Did not know what else to do	
Have a legal practitioner in the family	
Interested in law	
Prestige of the legal profession	
Hope to make a lot of money	
Broaden career options	
Other (please specify)	

6. What specific skills do you think make a good legal practitioner? Please try to answer as fully as possible

7. Did you pass the compulsory Introduction to Computers component of Legal Studies 110?
Please tick appropriate answer. Yes _____ No _____

8. Where and when did you first learn to use a computer?

9. Since you have been at University, for what purpose/s have you used a computer? Please tick next to the relevant option/s given in the table below. More than one option may be ticked

E-mailing	
Wordprocessing	
Recreational purposes eg games, music	
Searching the Library catalogue/OPAC	
Searching for online information for assignments	
Searching the Internet/www	
Using a search engine such as Google, Yahoo	
Searching or using CDROM	
Searching online academic databases via the Library's website	
Other, please specify	

10. If you have ticked more than one option for any of the activities mentioned in Question 9, list the THREE activities you use the computer for most.

11. How often do you use a computer? Please tick next to the relevant option given in the table below

Several times a day	
Once a day	
More than once a week, but not every day	
Once a week	
Less than once a week	
Only when an assignment is due	

12. Have you ever used the Internet for finding information **relating to your law courses**?
Yes ____ No _____. If your answer to this question is No, move to question 16.

13. If your answer to the above question was yes, what information did you search for and how did you search for it? Please answer as fully as possible

14. If you did search for information, did you find what you were looking for? Yes ____ No ____

15. If you didn't find what you were looking for, why do you think this happened? Please answer as fully as possible.

16. Have you ever accessed the UKZN Library website? Yes ____ No ____

17. If your answer to the above question is Yes, for what purpose did you access this website?

18. Have you ever used any of the following online academic databases or websites? Please tick next to the relevant option/s provided in the table below. You may tick more than one option.

Index to South African Periodicals	
EbscoHost	
Legal Periodicals and Books	
LexisNexis	
Westlaw	
Constitutional Court	
Other academic databases or websites – please specify	

19. Have you ever used the Law Library for information relating to law courses? Yes__ No __

20. If your answer to the above question was Yes, for what purpose/s did you use the library? Please tick next to the relevant option/s provided in the table below. You may tick more than one box .

Short Loan books and photocopies	
Reference books such as dictionaries and encyclopedias	
Law reports	
Statutes	
Books other than those from short loan	
Photocopy facilities	
Journals	
Library's catalogue (OPAC)	
Other, please specify	

21. What do you do **first** when you don't understand something in lectures? Please tick next to the relevant option/s provided in the table below.

Ask the lecturer	
Ask a friend	
Read the textbook	
Ignore the information	
Rote learn the information	
Go to the library and ask for help	
Use library resources	
Search the Internet	
Other, please specify	

22. Do you read over and above lectures and any handouts? Please tick next to the relevant option/s provided in the table below.

	Never	Sometimes	Always
Relevant sections of the textbook			
Relevant sections of the casebook where one was available			
Other books			
Recommended journal articles			
Full length cases in the law reports			
Statutes			
Other, please specify			

23. Have you ever have any difficulties with the reading of any of the sources of legal information?
Yes___ No__

24. If your answer to the above question is Yes, please explain what those difficulties were. Please try to be specific.

25. Did you experience any difficulty with any of the following during your law courses last year?. Please tick next to the relevant option/s provided in the table below if your answer is Yes. You may tick more than one option. If your answer is no, leave the spaces blank.

FIRAC	
Cases	
Applying the law to problems	
Explaining, in writing, how the law applies to a particular set of facts	
Identifying issues in a problem scenario	
Problem solving	

26. Do you believe that a practising attorney has to be objective at all times? Please tick next to the appropriate option. Yes___ No ___ Uncertain ___

27. In law is there always a right answer to a legal problem? Yes ___ No ___ Uncertain ___

28. If you were asked to write a legal opinion, what would you be doing? Please explain briefly.

29. What would you like to see more of in class in terms of content and method of delivery if it were possible? Please tick next to the relevant option/s provided in the table below. You may tick more than one option

Class discussion	
Small group discussion	
Debate	
Worksheets to facilitate working through material	
How to read academic texts	
How to read cases	
Independent research on topics	
Opportunity to ask questions	
More examples to illustrate principles	
Other, please specify	

Thank you for completing this questionnaire.

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INVENTORY OF LEARNING STYLES (ILS)

IN HIGHER EDUCATION

Jan Vermunt

Preface

The Inventory of Learning Styles in higher education is one of the outcomes of a research project on the learning styles of students in higher education. The project was carried out by the Department of Educational Psychology of the Tilburg University. The project team would like to thank in particular the many students who participated in the various phases of the project.

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INTRODUCTION

The Inventory of Learning Styles

The Inventory of Learning Styles (ILS) was developed to gain clearer insight into how students go about their studies and how they perceive their own learning. The ILS consists of a list of statements on study strategies, motives and attitudes.

How to complete the inventory?

The ILS is comprised of two parts: A and B. Each part consists of a list of statements concerning higher education studies and studying. The statements are taken from interviews with students. You are requested to indicate to what extent each statement applies to you. You can express your view by circling a number on a scale from 1 to 5.

Bear in mind that this list has nothing to do with right or wrong answers. Every person has his own ideas, opinions and study habits. The aim is to gain an insight into your *own* study habits and your personal view of studying and education. This means that an honest answer is automatically a correct answer. The purpose of the ILS is to identify *individual* views, motives and learning activities.

Important

Read each statement carefully and then indicate to what extent it applies to you by circling the relevant number.

The meaning of the numbers

The numbers after the statements have the following meaning:

In part A	In part B
1 = I do this seldom or never	1 = disagree entirely
2 = I do this sometimes	2 = disagree for the most part
3 = I do this regularly	3 = undecided or do not know
4 = I do this often	4 = agree for the most part
5 = I do this almost always	5 = agree entirely

Example

If you disagree entirely with a statement, you circle number 1.

Statement	Opinion
101. To me, education means the transfer of information and I fail to see what else it could be.	1 2 3 4 5

PART A: STUDY ACTIVITIES

Knowledge and insight do not develop on their own: it takes effort to master a particular piece of subject matter. This part of the inventory is concerned with the activities students undertake in the context of their studies. Read each statement carefully and then indicate to what extent you yourself engage in the activity concerned while studying. Terms such as "course" and "subject matter" refer to the courses and subjects you are taking. The meaning of the numbers after each statement is:

1	2	3	4	5
I do this seldom or never	I do this sometimes	I do this regularly	I do this often	I do this almost always

- | | | | | | |
|--|---|---|---|---|---|
| 1.I work through a chapter in a textbook item by item and I study each part separately. | 1 | 2 | 3 | 4 | 5 |
| 2.I repeat the main parts of the subject matter until I know them by heart. | 1 | 2 | 3 | 4 | 5 |
| 3.I use what I learn from a course in my activities outside my studies. | 1 | 2 | 3 | 4 | 5 |
| 4.If a textbook contains questions or assignments, I work them out completely as soon as I come across them while studying. | 1 | 2 | 3 | 4 | 5 |
| 5.I study all the subject matter in the same way. | 1 | 2 | 3 | 4 | 5 |
| 6.I try to combine the subjects that are dealt with separately in a course into one whole. | 1 | 2 | 3 | 4 | 5 |
| 7.I memorize lists of characteristics of a certain phenomenon. | 1 | 2 | 3 | 4 | 5 |
| 8.I realize that it is not clear to me what I have to remember and what I do not have to remember. | 1 | 2 | 3 | 4 | 5 |
| 9.I make a list of the most important facts and learn them by heart. | 1 | 2 | 3 | 4 | 5 |
| 10.I try to discover the similarities and differences between the theories that are dealt with in a course. | 1 | 2 | 3 | 4 | 5 |
| 11.I experience the introductions, objectives, instructions, assignments and test items given by the teacher as indispensable guidelines for my studies. | 1 | 2 | 3 | 4 | 5 |
| 12.I test my learning progress solely by completing the questions, tasks and exercises provided by the teacher or the textbook. | 1 | 2 | 3 | 4 | 5 |
| 13.I relate specific facts to the main issue in a chapter or article. | 1 | 2 | 3 | 4 | 5 |
| 14.I try to interpret events in everyday reality with the help of the knowledge I have acquired in a course. | 1 | 2 | 3 | 4 | 5 |
| 15.I notice that I have trouble processing a large amount of subject matter. | 1 | 2 | 3 | 4 | 5 |
| 16.In addition to the syllabus, I study other literature related to the content of the course. | 1 | 2 | 3 | 4 | 5 |
| 17.I analyse the separate components of a theory step by step. | 1 | 2 | 3 | 4 | 5 |
| 18.I learn everything exactly as I find it in the textbooks. | 1 | 2 | 3 | 4 | 5 |

INVENTORY OF LEARNING STYLES

3

19.I notice that it is difficult for me to determine whether I have mastered the subject matter sufficiently.	1	2	3	4	5
20.To test my learning progress when I have studied a textbook, I try to formulate the main points in my own words.	1	2	3	4	5
21.I pay particular attention to those parts of a course that have practical utility.	1	2	3	4	5
22.I do not proceed to a subsequent chapter until I have mastered the current chapter in detail.	1	2	3	4	5
23.When I start reading a new chapter or article, I first think about the best way to study it.	1	2	3	4	5
24.I try to see the connection between the topics discussed in different chapters of a textbook.	1	2	3	4	5
25.I memorize definitions as literally as possible.	1	2	3	4	5
26.I realize that the objectives of the course are too general for me to offer any support.	1	2	3	4	5
27.I do more than I am expected to do in a course.	1	2	3	4	5
28.I compare my view of a course topic with the views of the authors of the textbook used in that course.	1	2	3	4	5
29.If I am able to give a good answer to the questions posed in the textbook or by the teacher, I decide that I have a good command of the subject matter.	1	2	3	4	5
30.When I have difficulty grasping a particular piece of subject matter, I try to analyse why it is difficult for me.	1	2	3	4	5
31.I study according to the instructions given in the study materials or provided by the teacher.	1	2	3	4	5
32.I memorize the meaning of every concept that is unfamiliar to me.	1	2	3	4	5
33.I try to construct an overall picture of a course for myself.	1	2	3	4	5
34.I compare the conclusions drawn in different chapters.	1	2	3	4	5
35.To test my learning progress, I try to answer questions about the subject matter which I make up myself.	1	2	3	4	5
36.I check whether the conclusions drawn by the authors of a textbook follow the facts on which they are based logically.	1	2	3	4	5
37.I study details thoroughly.	1	2	3	4	5
38.I realize that I miss someone to fall back on in case of difficulties.	1	2	3	4	5
39.I add something to the subject matter from other sources.	1	2	3	4	5
40.I draw my own conclusions on the basis of the data that are presented in a course.	1	2	3	4	5

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- | | | | | | |
|--|---|---|---|---|---|
| 41. When doing assignments, I train myself thoroughly in applying the methods dealt with in a course. | 1 | 2 | 3 | 4 | 5 |
| 42. I analyse the successive steps in an argumentation one by one. | 1 | 2 | 3 | 4 | 5 |
| 43. To test whether I have mastered the subject matter, I try to think up other examples and problems besides the ones given in the study materials or by the teacher. | 1 | 2 | 3 | 4 | 5 |
| 44. I use the instructions and the course objectives given by the teacher to know exactly what to do. | 1 | 2 | 3 | 4 | 5 |
| 45. With the help of the theories presented in a course, I devise solutions to practical problems. | 1 | 2 | 3 | 4 | 5 |
| 46. I try to be critical of the interpretations of experts. | 1 | 2 | 3 | 4 | 5 |
| 47. When I am studying, I also pursue learning goals that have not been set by the teacher but by myself. | 1 | 2 | 3 | 4 | 5 |
| 48. When I am studying a topic, I think of cases I know from my own experience that are connected to that topic. | 1 | 2 | 3 | 4 | 5 |
| 49. If I do not understand a study text well, I try to find other literature about the subject concerned. | 1 | 2 | 3 | 4 | 5 |
| 50. If I am able to complete all the assignments given in the study materials or by the teacher, I decide that I have a good command of the subject matter. | 1 | 2 | 3 | 4 | 5 |

PART B: STUDY MOTIVES AND VIEWS ON STUDYING**B1. Study motives**

There can be many reasons for someone to take up a course of study. This part of the ILS is concerned with the motives, objectives and attitudes students may have with regard to their studies. Indicate for each statement to what extent it applies to you. Bear in mind that you are *not* asked to indicate whether you think a motive or objective is good, less good or bad; you are only asked to indicate to what extent you think a statement applies to you personally. This is the meaning of the numbers:

1	2	3	4	5
Disagree entirely	Disagree for the most part	Undecided or do not know	Agree for the most part	Agree entirely

51. When I have a choice, I opt for courses that seem useful to me for my present or future profession.	1	2	3	4	5
52. I do these studies out of sheer interest in the topics that are dealt with.	1	2	3	4	5
53. I want to prove to myself that I am capable of doing studies in higher education.	1	2	3	4	5
54. I doubt whether this is the right subject area for me.	1	2	3	4	5
55. I aim at attaining high levels of study achievements.	1	2	3	4	5
56. I want to show others that I am capable of successfully doing a higher education programme.	1	2	3	4	5
57. I have chosen this subject area, because it prepares me for the type of work I am highly interested in.	1	2	3	4	5
58. The main goal I pursue in my studies is to pass exams.	1	2	3	4	5
59. I view the choice I have made to enrol in higher education as a challenge.	1	2	3	4	5
60. The only aim of my studies is to enrich myself.	1	2	3	4	5
61. I have little confidence in my study capacities.	1	2	3	4	5
62. For the kind of work I would like to do, I need to have studied in higher education.	1	2	3	4	5
63. What I want in these studies is to earn credits for a diploma.	1	2	3	4	5
64. I see these studies as sheer relaxation.	1	2	3	4	5
65. I study above all to pass the exam.	1	2	3	4	5
66. The main goal I pursue in my studies is to prepare myself for a profession.	1	2	3	4	5
67. I want to discover my own qualities, the things I am capable and incapable of.	1	2	3	4	5

Error! Reference source not found. *INVENTORY OF LEARNING STYLES*

1	2	3	4	5
I do this seldom or never	I do this sometimes	I do this regularly	I do this often	I do this almost always
68. What I want to acquire above all through my studies is professional skill.				1 2 3 4 5
69. When I have a choice, I opt for courses that suit my personal interests.				1 2 3 4 5
70. I wonder whether these studies are worth all the effort.				1 2 3 4 5
71. I doubt whether this type of education is the right type of education for me.				1 2 3 4 5
72. I want to test myself to see whether I am capable of doing studies in higher education.				1 2 3 4 5
73. I do these studies because I like to learn and to study.				1 2 3 4 5
74. I am afraid these studies are too demanding for me.				1 2 3 4 5
75. To me, written proof of having passed an exam represents something of value in itself.				1 2 3 4 5

B2. Study views

What do learning, good education and cooperation with others mean to you? What, according to you, are the tasks of your teachers? What do you regard as your own tasks, as a student? What could be the role of your fellow students in your studies? Questions such as these are addressed in this part of the ILS. The statements reflect students' views concerning matters related to learning, being educated, the division of tasks between the student and the educational institution, and the contacts with other students. This part is not so much concerned with the activities you actually undertake in your studies, as with what you consider to be important in general with regard to studying and teaching. Indicate for each statement to what extent it corresponds to your own view. This is the meaning of the numbers:

1	2	3	4	5
Disagree entirely	Disagree for the most part	Undecided or do not know	Agree for the most part	Agree entirely
76. The things I learn have to be useful for solving practical problems.				1 2 3 4 5
77. I like to be given precise instructions as to how to go about solving a task or doing an assignment.				1 2 3 4 5
78. When I prepare myself for an exam, I prefer to do so together with other students.				1 2 3 4 5
79. To me, learning means trying to approach a problem from many different angles, including aspects that were previously unknown to me.				1 2 3 4 5

INVENTORY OF LEARNING STYLES **Error! Reference source not found.**

- | | | | | | |
|--|---|---|---|---|---|
| 80.To me, learning is making sure that I can reproduce the facts presented in a course. | 1 | 2 | 3 | 4 | 5 |
| 81.I should look for relationships within the subject matter of my own accord. | 1 | 2 | 3 | 4 | 5 |
| 82.I like to be encouraged by other students to process the study materials at a particular pace. | 1 | 2 | 3 | 4 | 5 |
| 83.I should try myself to apply the theories dealt with in a course to practical situations. | 1 | 2 | 3 | 4 | 5 |
| 84.The teacher should encourage me to combine the separate components of a course into a whole. | 1 | 2 | 3 | 4 | 5 |
| 85.If I have difficulty understanding a particular topic, I should consult other books of my own accord. | 1 | 2 | 3 | 4 | 5 |
| 86.I prefer to do assignments together with other students. | 1 | 2 | 3 | 4 | 5 |
| 87.The teacher should explain clearly what is important and what is less important for me to know. | 1 | 2 | 3 | 4 | 5 |
| 88.I have a preference for courses in which a lot of practical applications of the theoretical parts are given. | 1 | 2 | 3 | 4 | 5 |
| 89.When I have difficulty understanding something, the teacher should encourage me to find a solution by myself. | 1 | 2 | 3 | 4 | 5 |
| 90.To me, learning means acquiring knowledge that I can use in everyday life. | 1 | 2 | 3 | 4 | 5 |
| 91.Good teaching includes giving a lot of questions and exercises to test whether I have mastered the subject matter. | 1 | 2 | 3 | 4 | 5 |
| 92.To test my own learning progress, I should try to answer questions about the subject matter which I make up myself. | 1 | 2 | 3 | 4 | 5 |
| 93.The teacher should encourage me to compare the various theories that are dealt with in a course. | 1 | 2 | 3 | 4 | 5 |
| 94.I prefer a type of instruction in which I am told exactly what I need to know for an exam. | 1 | 2 | 3 | 4 | 5 |
| 95.I consider it important to be advised by other students as to how to approach my studies. | 1 | 2 | 3 | 4 | 5 |
| 96.The teacher should encourage me to check myself whether I have mastered the subject matter. | 1 | 2 | 3 | 4 | 5 |
| 97.To me, learning means acquiring knowledge and skills that I can later apply in practice. | 1 | 2 | 3 | 4 | 5 |
| 98.I should try to think up examples with the study materials of my own accord. | 1 | 2 | 3 | 4 | 5 |
| 99.The teacher should encourage me to reflect on the way I study and how to develop my way of studying. | 1 | 2 | 3 | 4 | 5 |
| 100. I have a need to work together with other students in my studies. | 1 | 2 | 3 | 4 | 5 |

Please check whether you have circled a number with each item.

End

APPENDIX FOUR
LEARNING STYLES INVENTORY

From: "Vermunt, prof. dr. J.D.H.M. (Jan)" <J.D.H.M.Vermunt@ivlos.uu.nl>
To: "Rosemary Kuhn" <Kuhn@ukzn.ac.za>
Date: 2004/12/13 05:15 PM
Subject: RE: inventory of learning styles
Attachments: ILS-HE English.rtf; ILS-HE English scoring key.rtf; ILS-HE English 100 item s.rtf; ILS-HE English 100 scoring key.rtf

Dear Rosemary,

Thank you for your interest in our work. I attached the original Inventory of Learning Styles (ILS) to this message, as well as a shortened version, both together with the necessary scoring key. I herewith give you permission to use the ILS for your research and teaching.

In due time I would be interested to receive any report or description of your work.

Best wishes,

Jan Vermunt

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<http://www.ivlos.uu.nl/deorganisatie/wiewatwaar/medewerkers/vermunt/englishversion/34142main.html>

-----Oorspronkelijk bericht-----

Van: Rosemary Kuhn [mailto:Kuhn@ukzn.ac.za]
Verzonden: vrijdag 10 december 2004 13:05
Aan: Vermunt, prof. dr. J.D.H.M. (Jan)
Onderwerp: inventory of learning styles

Dear Professor Vermunt

I am currently registered for a PhD in Information Studies and am focussing on developing a legal research skills programme that is a compulsory course for second year university law students. I am interested in your Inventory of Learning Styles and wondered if it is going to be possible to use your ILS and what is the procedure for obtaining the necessary permission.

Yours faithfully

Rosemary Kuhn: Subject librarian: law

Rosemary Kuhn
Subject Librarian
Main Library
University of Natal (Pietermaritzburg)
Pvt Bag X 014
Scottsville
3209

Ph: +27 (033) 260 5904
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Email: kuhn@nu.ac.za

Please find our disclaimer at <http://www.ukzn.ac.za/disclaimer>

<<<<gwavasig>>>>

**SCORING KEY FOR THE
INVENTORY OF LEARNING STYLES (ILS)
IN HIGHER EDUCATION**

100 item version

Jan Vermunt

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General

Scale scores are computed by adding item scores. There is no reversed scoring.

Domain I: Processing strategies (25 items)

1. Scale Deep processing (10 items)

1a. Subscale Relating and structuring (6 items)

- 6. I try to combine the subjects that are dealt with separately in a course into one whole.
- 10. I try to discover the similarities and differences between the theories that are dealt with in a course.
- 13. I relate specific facts to the main issue in a chapter or article.
- 24. I try to see the connection between the topics discussed in different chapters of a textbook.
- 33. I try to construct an overall picture of a course for myself.
- 34. I compare the conclusions drawn in different chapters.

1b. Subscale Critical processing (4 items)

- 28. I compare my view of a course topic with the views of the authors of the textbook used in that course.
- 36. I check whether the conclusions drawn by the authors of a textbook follow the facts on which they are based logically.
- 40. I draw my own conclusions on the basis of the data that are presented in a course.
- 46. I try to be critical of the interpretations of experts.

2. Scale Stepwise processing (10 items)

2a. Subscale Memorizing and rehearsing (5 items)

- 2. I repeat the main parts of the subject matter until I know them by heart.
- 7. I memorize lists of characteristics of a certain phenomenon.
- 9. I make a list of the most important facts and learn them by heart.
- 25. I memorize definitions as literally as possible.
- 32. I memorize the meaning of every concept that is unfamiliar to me.

2b. Subscale Analysing (5 items)

- 1. I work through a chapter in a textbook item by item and I study each part separately.
- 17. I analyse the separate components of a theory step by step.
- 22. I do not proceed to a subsequent chapter until I have mastered the current chapter in detail.
- 37. I study details thoroughly.
- 42. I analyse the successive steps in an argumentation one by one.

3. Scale Concrete processing (5 items)

- 3. I use what I learn from a course in my activities outside my studies.
- 14. I try to interpret events in everyday reality with the help of the knowledge I have acquired in a course.
- 21. I pay particular attention to those parts of a course that have practical utility.
- 45. With the help of the theories presented in a course, I devise solutions to practical problems.
- 48. When I am studying a topic, I think of cases I know from my own experience that are connected to that topic.

Domain II: Regulation strategies (25 items)**4. Scale Self-regulation (10 items)***4a. Subscale Self-regulation of Learning processes and results (6 items)*

- 20. To test my learning progress when I have studied a textbook, I try to formulate the main points in my own words.
- 23. When I start reading a new chapter or article, I first think about the best way to study it.
- 30. When I have difficulty grasping a particular piece of subject matter, I try to analyse why it is difficult for me.
- 35. To test my learning progress, I try to answer questions about the subject matter which I make up myself.
- 43. To test whether I have mastered the subject matter, I try to think up other examples and problems besides the ones given in the study materials or by the teacher.
- 47. When I am studying, I also pursue learning goals that have not been set by the teacher but by myself.

4b. Subscale Self-regulation of Learning content (4 items)

- 16. In addition to the syllabus, I study other literature related to the content of the course.
- 27. I do more than I am expected to do in a course.
- 39. I add something to the subject matter from other sources.
- 49. If I do not understand a study text well, I try to find other literature about the subject concerned.

5. Scale External regulation (10 items)*5a. Subscale External regulation of Learning processes (5 items)*

- 4. If a textbook contains questions or assignments, I work them out completely as soon as I come across them while studying.
- 5. I study all the subject matter in the same way.
- 18. I learn everything exactly as I find it in the textbooks.
- 31. I study according to the instructions given in the study materials or provided by the teacher.
- 44. I use the instructions and the course objectives given by the teacher to know exactly what to do.

5b. Subscale External regulation of Learning results (5 items)

- 11. I experience the introductions, objectives, instructions, assignments and test items given by the teacher as indispensable guidelines for my studies.
- 12. I test my learning progress solely by completing the questions, tasks and exercises provided by the teacher or the textbook.
- 29. If I am able to give a good answer to the questions posed in the textbook or by the teacher, I decide that I have a good command of the subject matter.
- 41. When doing assignments, I train myself thoroughly in applying the methods dealt with in a course.
- 50. If I am able to complete all the assignments given in the study materials or by the teacher, I decide that I have a good command of the subject matter.

6. Scale Lack of regulation (5 items)

- 8. I realize that it is not clear to me what I have to remember and what I do not have to remember.
- 15. I notice that I have trouble processing a large amount of subject matter.
- 19. I notice that it is difficult for me to determine whether I have mastered the subject matter sufficiently.
- 26. I realize that the objectives of the course are too general for me to offer any support.
- 38. I realize that I miss someone to fall back on in case of difficulties.

Domain III: Learning orientations (25 items)**7. Scale Personally interested (5 items)**

- 52. I do these studies out of sheer interest in the topics that are dealt with.
- 60. The only aim of my studies is to enrich myself.
- 64. I see these studies as sheer relaxation.
- 69. When I have a choice, I opt for courses that suit my personal interests.
- 73. I do these studies because I like to learn and to study.

8. Scale Certificate directed (5 items)

- 55. I aim at attaining high levels of study achievements.
- 58. The main goal I pursue in my studies is to pass exams.
- 63. What I want in these studies is to earn credits for a diploma.
- 65. I study above all to pass the exam.
- 75. To me, written proof of having passed an exam represents something of value in itself.

9. Scale Self-test directed (5 items)

- 53. I want to prove to myself that I am capable of doing studies in higher education.
- 56. I want to show others that I am capable of successfully doing a higher education programme.
- 59. I view the choice I have made to enrol in higher education as a challenge.
- 67. I want to discover my own qualities, the things I am capable and incapable of.
- 72. I want to test myself to see whether I am capable of doing studies in higher education.

10. Scale Vocation directed (5 items)

- 51. When I have a choice, I opt for courses that seem useful to me for my present or future profession.
- 57. I have chosen this subject area, because it prepares me for the type of work I am highly interested in.
- 62. For the kind of work I would like to do, I need to have studied in higher education.
- 66. The main goal I pursue in my studies is to prepare myself for a profession.
- 68. What I want to acquire above all through my studies is professional skill.

11. Scale Ambivalent (5 items)

- 54. I doubt whether this is the right subject area for me.
- 61. I have little confidence in my study capacities.
- 70. I wonder whether these studies are worth all the effort.
- 71. I doubt whether this type of education is the right type of education for me.
- 74. I am afraid these studies are too demanding for me.

Domain IV: Mental models of learning (25 items)**12. Scale Construction of knowledge (5 items)**

- 79. To me, learning means trying to approach a problem from many different angles, including aspects that were previously unknown to me.
- 81. I should look for relationships within the subject matter of my own accord.
- 85. If I have difficulty understanding a particular topic, I should consult other books of my own accord.
- 92. To test my own learning progress, I should try to answer questions about the subject matter which I make up myself.
- 98. I should try to think up examples with the study materials of my own accord.

13. Scale Intake of knowledge (5 items)

- 77. I like to be given precise instructions as to how to go about solving a task or doing an assignment.
- 80. To me, learning is making sure that I can reproduce the facts presented in a course.
- 87. The teacher should explain clearly what is important and what is less important for me to know.
- 91. Good teaching includes giving a lot of questions and exercises to test whether I have mastered the subject matter.
- 94. I prefer a type of instruction in which I am told exactly what I need to know for an exam.

14. Scale Use of knowledge (5 items)

- 76. The things I learn have to be useful for solving practical problems.
- 83. I should try myself to apply the theories dealt with in a course to practical situations.
- 88. I have a preference for courses in which a lot of practical applications of the theoretical parts are given.
- 90. To me, learning means acquiring knowledge that I can use in everyday life.
- 97. To me, learning means acquiring knowledge and skills that I can later apply in practice.

15. Scale Stimulating education (5 items)

- 84. The teacher should encourage me to combine the separate components of a course into a whole.
- 89. When I have difficulty understanding something, the teacher should encourage me to find a solution by myself.
- 93. The teacher should encourage me to compare the various theories that are dealt with in a course.
- 96. The teacher should encourage me to check myself whether I have mastered the subject matter.
- 99. The teacher should encourage me to reflect on the way I study and how to develop my way of studying.

16. Scale Co-operation (5 items)

- 78. When I prepare myself for an exam, I prefer to do so together with other students.
- 82. I like to be encouraged by other students to process the study materials at a particular pace.
- 86. I prefer to do assignments together with other students.
- 95. I consider it important to be advised by other students as to how to approach my studies.
- 100. I have a need to work together with other students in my studies.

APPENDIX FIVE
PRE- AND POST-TEST

2. Why is analyzing the topic or problem such a critical first step when trying to solve a problem or undertake an assignment? (3)

3. Why is it important to distinguish between primary and secondary sources in law? Give examples of the primary and secondary sources (4)

4. Why are the secondary sources of law often a good starting point when searching for information on a topic? (3)

5. Which of the following are considered primary sources in law and which are considered secondary sources? Tick in the appropriate box next to each item

SOURCE	PRIMARY	SECONDARY
dictionary		
case		
journal		
Law commission report		
statute		

(5)

6. Briefly describe what the publication LAWSA (Law of South Africa) is and what information it provides

(4)

7. In the academic sense, what is a journal and what is the purpose of journal literature?

(4)

APPENDIX SIX
REFLECTION EXERCISE

Dealing with any legal problem involves not only a number of steps and / or activities but particular ways of thinking and reasoning at each step and about the problem as a whole.

- What have you personally learnt about these processes and activities to date during the module – if anything – in terms of the nature of thinking and reasoning, finding and using information and so on
- Draw on the reading and writing exercises and discussions and practicals you have done to date
- Be specific and give examples
- Please indicate where you have experienced problems in particular.

Please note that this is NOT an evaluation of the LRWR module, but your reflection on your experiences in the module so far.

This assignment should be between one and two pages in length.

Due date: Tuesday 24 April 2006.

Hand in at the lecture.

APPENDIX SEVEN

FOCUS GROUPS

LRWR MAY 2006 FOCUS GROUPS: FORMAT AND QUESTIONS

Check tape recorder, arrange seating in room and 'Do not disturb' notice on the door.

1.
 - a) welcome and thank students
 - b) explain what focus groups are, length, process
 - c) remember to stress these are informal, a way of evaluating the active learning approach to the module
 - d) explain reason for these particular focus groups, brief overview of the nature of my research
 - e) ask if any questions or explanation needed
 - f) explain recording of proceedings and ask permission to tape. Assure anonymity and explain how writing up of the focus groups will be done and presented in the thesis.
2. Ask students to introduce themselves to the group – name, degree, subjects.
3. Introductory question:

Did you feel that the multi – method and active learning approach was useful and helpful in the Legal Research module and if so how?

4. Transition question

In the questionnaire at the beginning of the year, the question was asked as to what would you like to see more of if time permitted. The range of answers included worksheets, debate, discussion, more examples, group work etc. All of these were acknowledged. Many of these activities are part of an active learning approach. Do you feel that the Legal Research module successfully reflected an integration of integrated these activities?

5. Core questions

- what do you think of the theory and practical combination in the module?

cues – we did practical exercises in the classroom; practicals in electronic resources; formal input on content such as the difference between primary and secondary sources; discussion etc

- do you think that the group work and class discussions were useful and appropriate?
- what do you think about the use of a single topic as the basis on which to build theoretical and practical knowledge and skills of research, writing and reasoning?

cues – approach from a range of angles, discover different opinions, build an answer

- what do you think about the methods of assessment?
cues – worksheets, practical exercises, opinion; scaffolding etc
- what would you change in the module based on your experience?

cues – practicals, more written work and so on

5. Final summarizing question

By way of summary we have looked at the approach taken in the Legal Research module in terms of the use of a single topic; a range of teaching and learning methods such as discussion, group work, work sheets, written assignments etc; the balance between theory and practice and assessment. Have you anything else to add or comment upon in terms of your experience?

6. Thank students for their participation; pay them.

APPENDIX EIGHT
OBSERVATION

LRWR 2006 OBSERVATION FRAMEWORK

Date:

Class:

In terms of group work observe the following:

- a) size of groups and composition
- b) nature of participation of members of groups: all participating equally and how
- c) nature of the conversations on the topic: are students keeping to the topic, particular aspects being covered, questions being raised, not dealing with the topic
- d) nature of interaction between groups and lecturer/tutor
- e) observation of any difficulties within the groups
- f) any interesting features of the group dynamics or discussion