USING AN ACADEMIC LITERACY COURSE IN A FIRST YEAR EDUCATIONAL

PROGRAMME TO INVESTIGATE 'AT RISK' TECHNIKON NATAL* STUDENTS

PERCEPTIONS OF LEARNING, LEARNING STYLES AND USE OF LEARNING

STRATEGIES IN RELATION TO THEIR ACHIEVEMENT LEVELS

* IN 2002 THE TECHNIKON NATAL MERGED WITH THE M L SULTAN

TECHNIKON TO BECOME THE DURBAN INSTITUTE OF TECHNOLOGY (DIT)

Lawrence Martin Olivier

2004

Submitted in Partial Fulfilment of the

Master of Education (Higher Education)

Centre for Higher Education Studies

University of KwaZulu Natal

Supervisor: Ruth Searle

Abstract

This research report is about a study into formerly Technikon Natal (now DIT) 'at risk' students' perceptions of learning (deep or surface), learning styles and use of self-regulating learning strategies (level of metacognitive knowledge). The aim of the study is to get a deeper understanding of how this category of student approaches learning.

The literature study explored issues on the interdependent relationship between language and learning, how socialisation shapes language and learning, perceptions of learning, learning styles and metacognition. However these issues and interrelationships are shown to be much more complex when learners are 'at risk', that is, come from disadvantaged backgrounds and learn using English as an additional language.

The research paradigm chosen is interpretive because the researcher has a practical interest and seeks contextualised understanding of 'at risk' students' subjective experiences of learning. The researcher's central disposition is to make a judgment on 'at risk' students' perceptions of learning, their learning styles and self-regulating learning strategies (metacognitive behaviour) elicited from their responses in questionnaires.

Although there are limitations with collecting and analyzing data mainly using questionnaires, key findings in the study show that high achieving (HA) first year of study 'at risk' students seem more likely to be associated with a) emerging deep perceptions of learning b) emerging less active and more reflective learning styles and c) a greater ability to communicate knowledge and express their understanding using English as an additional language. A key recommendation is to abandon a separate and special Academic Literacy course for 'at risk' students in the DIT and rather to integrate academic literacy development into the mainstream.

Acknowledgements

My appreciation and thanks to my supervisor Ruth Searle for her attention to detail, her quality of feedback and guidance all of which played an important part in the process of constructing knowledge and in the writing-up of this research report.

Declaration

This dissertation is my own work and has not been submitted for examination in any other university.

Lawrence Martin Olivier

APRIL 2004

TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES PAGE

CHAPTER 1

INTRODUCTION TO THE STUDY

1.1. BACKGROUND TO THE STUDY

The researcher began his teaching career in higher education at the Technikon Natal in 1977. In that period his higher education classroom was predominantly 'white', English was the language of learning, most of the students were English first language speakers, readers and writers, and, most of his students came from privileged high school and middle-class socio-economic backgrounds. Pass rates were never a serious problem. By 1999 his higher education classroom had completely changed. Most students were African, most spoke Zulu, and many came from less privileged and disadvantaged schools and poorer socio-economic backgrounds. However the language of learning, reading and writing was still English and pass rates had become a problem.

The1999 year end examination results of first year African students in the faculty provided a dismal picture of high failure rates in a number of courses (Examination Statistics Technikon Natal, 2000). In Business Management 1, 167 African students registered in the course and 73 passed (a pass rate of 43, 7%). In Consumer Behaviour 1, 140 registered and 71 passed (a 50, 7% pass rate). In Economics 1, 150 registered and 65 passed (a 43, 3% pass rate). In Financial Accounting 1, 183 registered and 62 passed (a 33, 9% pass rate). In Management 1, 96 registered and 41 passed (a 42, 7% pass rate). In Marketing 1, 93

registered and 25 passed (a 26, 9% pass rate).   In Personal Selling 1, 178 registered and 62 passed (a 34, 8% pass rate).   These low pass rates amongst African students were viewed by the faculty as a trend and this led to the faculty re-examining its admission requirements in 2001 and to the development of the notion of an 'at risk' student.   The opportunity to do research into how 'at risk' African students learn presented itself when the researcher was given the task of lecturer to 'at risk' students in the 2001 Academic Literacy (AL).   An 'at risk' student and an Academic Literacy course are explained in the next two sections (1.2 and 1. 3).

1.2. 'AT RISK' STUDENTS

The Technikon Natal higher education institution in 2001 decided to address the problem of high failure rates by identifying a student who will be 'at risk'.   An 'at risk' student in 2001 was defined by the institution as a first year diploma student who did not meet the English language requirements of the institution.   Rule G7 the General Minimum Admission Requirement rule used in 2001 is based on communication competency in English.   The rule requires a student to matriculate in either English First Language Higher Grade with an E pass or Standard Grade with a D level.   If the student's first language is not English, then the student needs to have matriculated with English Second Language, at a C pass in the Higher Grade or a B pass in the Standard Grade.   Rather than deny the student access to the institution on the grounds of competency in the English language and to meet the policy of redress and equity, the institution required the student to do a

Language Test (PTEEP) in 2001. This test is designed to test academic literacy in the medium of instruction English (McKenna, 2002a). If the student passed the PTEEP test (scores 45% or plus) the student was admitted into an educational programme unconditionally and was no longer defined as 'at risk'. However if the student failed the PTEEP test, the student was considered to be 'at risk' and a condition of admission to an educational programme in 2001 was the requirement that the student register in an Academic Literacy course (ENAP1001) in addition to registration into the normal mainstream courses of the first year educational programme. Some of the students who participated in an Academic Literacy course in 2001 are the subjects of this research.

For the purposes of this research an 'at risk' student is defined as:

1) an African student who learns using English as an additional language

2) a student who scores less than 45% on the PTEEP test

3) a student who is required to register for an Academic Literacy course as a condition of entry into the educational programme National Diploma in Retail Management at the Technikon Natal in 2001.

1.3. USING THE ACADEMIC LITERACY COURSE AS A CASE STUDY

An academic literacy approach to language development was introduced into the Technikon Natal in 2000. The aim of the Academic Literacy course in 2001 was to close the gap between the high school experience and the expectations of the

higher education curriculum. Academic Literacy (2001:1) was defined in the Study Guide as 'the knowledge system which enables a student to participate in the academic discourse at higher education level through study methods which include accessing information and producing a variety of oral and written texts' (Technikon Natal, 2001:1).

McKenna (2002b) has identified three periods of language intervention in the Technikon Natal institution. Between 1991 and 1998 language intervention was described as English Second Language (ESL) and the focus was on developing the English language. The underpinning assumption of the ESL course was 'the belief that students lack an overt understanding of grammar rules', and, that when students understand these rules of English grammar this 'would improve their academic reading and writing' (McKenna, 2002b:3). In1999 the approach was changed and was described as English for Academic Purposes (EAP). The focus of the intervention shifted to 'generic skills such as note-taking, writing an introduction, reading strategies' (McKenna, 2002b:3). However a problem with both the ESL and the EAP approaches was that the skills acquired did not transfer to mainstream courses in the academy (Mckenna, 2002b). The problem of an absence of transfer led to a further re-think in the institution on how to approach language development. In 2000 the approach to language development was described as Academic Literacy (AL). The purpose of the AL (2001:1) course was

explained in the Study Guide as 'to provide students with the language and academic skills required for independent studying at a higher education institution'.

The researcher was given the task of lecturing in the 2001 Academic Literacy (AL) Course (ENAP1001) for students registered on the National Diploma in Retail Management. These students were required to attend this academic literacy course as an addition to their educational programme in Retail Management because they had not met the institution's entrance requirements and also because they had failed the academic literacy test (PTEEP). The learning outcomes of the AL (2001:1) were explicitly stated in the 2001 course Study Guide:

By the end of the course the students should be able to:
- note the main points from spoken and written language
- identify and use textual cues and conventions in academic text
- use available resources independently to access information
- use clear and appropriate language in formal and informal situations in speech and writing
- access and use graphical information
- write coherent and cohesive academic texts in an appropriate style.

Appendix D illustrates six key tasks of the 2001 AL course that were designed to meet the outcomes: 1) working on PLATO; 2) giving an Oral Presentation (Group

work) on 'Establishing a Business'; 3) writing an Essay on 'Establishing a Business'; 4) preparing a File (a Portfolio); 5) answering Questionnaires (for the purposes of this research); and 6) attending a Final Interview (Fourth Term).

Ten 'at risk' students on this Academic Literacy course in 2001 constitute the case study and sample of the research. All ten are African students and learn using English as an additional language. Five of the ten 'at risk' students were identified as high achievers (HA) and five were identified as low achievers (LA) on the basis of the average of three final examination scores (examinations conducted in 2001) in their mainstream educational programme National Diploma in Retail Management (one of which is a major course Retail Business Management 1).

1.4. FOCUS OF THE CASE STUDY

The focus of the case study is to investigate whether high achieving (HA) and low achieving (LA) 'at risk' African students who participated in the Academic Literacy course, hold different perceptions of learning and have different learning styles and use different learning strategies. The study intends to generate educational knowledge on how these 'at risk' African students perceive learning, their learning styles and the learning strategies they use for self-regulation, for example, when writing an academic essay and preparing for an end of term test.

This research is viewed as providing potentially useful educational knowledge for 1) academic development practitioners in the DIT; 2) the mainstream lecturing staff in the DIT; and 3) the broader higher education academic development community. From the researcher's perspective, as a reflective academic development /academic literacy development practitioner, the research is viewed as part of an ongoing process of reflection on own practice with a view to not only better understanding own practice, but also, to improving it.

1.5. RESEARCH QUESTIONS

The main research question is whether high achieving (HA) and low achieving (LA) 'at risk' students differ in perceptions of learning, differ in learning styles and in use of learning strategies. The study seeks answers to three questions:

1. What perceptions of learning, learning styles and use of learning strategies are associated with high achieving and low achieving 'at risk' students?

2. Do these perceptions of learning, learning styles and use of learning strategies change over time?

3. What factors influence 'at risk' students' perceptions of learning, learning styles and use of learning strategies?

1.6. STRUCTURE OF RESEARCH REPORT

In Chapter 2 the researcher explores the literature on some theoretical issues. Firstly the relationship between language and learning is explored. This is viewed as necessary because all 'at risk' students in the study learn using English as an additional language of learning and are participating in an Academic Literacy course designed to improve their cognitive academic language proficiency and learning. Secondly a number of theoretical issues in learning are examined. In Chapter 3 the researcher explains his research methodology and research design. Here he gives reasons for his chosen methodological stance and the methods used to collect data as well as the limitations of the data collecting process. In Chapter 4 the focus is on data analysis and in Chapter 5 the final chapter the researcher discusses his research findings, the limitations of his study and his recommendations.

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL ISSUES

2.1 INTRODUCTION

The role of language in learning and the relationship between language and learning has become a complex issue in the researcher's higher education classroom particularly when the students are viewed as 'at risk'. The chapter takes the form of a literature survey of some theoretical issues in language and learning. The chapter firstly explores the relationship between language and learning, and then examines Cummins'(1984) model. Then because the focus of the study is on perceptions of learning, learning styles and learning strategies the theoretical issues underpinning these concepts are explored. Particular attention is given to Kolb's (1993) model.

2.2 THE RELATIONSHIP BETWEEN LANGUAGE AND LEARNING

Given that the 'at risk' students in the study learn using English as an additional language and given that the study is investigating how 'at risk' students learn, this section explores some theoretical issues on the relationship between language and learning.

Language theorists, for example Nightingale (1988) argued some time ago for the need to give more attention to the role of language in learning in higher education. Although Nightingale (1988) assumes in her theory that the language of learning is

English as a first language, useful understandings emerge from her theories which may also be applicable to situations where the language of learning used is English as an additional language. For example she draws attention to the understanding that in higher education:

> ... the language that students generate when they speak and write is as important in their learning as is the language they read and hear ...
>
> (Nightingale, 1988:66)

Higher education practitioners have traditionally taken-for-granted that learners can independently learn and that through the delivery of good presentations at lectures and prescribing adequate readings this is sufficient to enhance learning. What Nightingale (1988) is here pointing to is the need for higher education practitioners to include in the design of their curriculum more opportunities for students to be more active, that is to do more talking and writing in their disciplines rather than the focus on listening in lectures and reading widely on the topic. However when students struggle with the language of English as well as with the language of the discipline these processes suggested by Nightingale (who assumes English first language learners in her theory) may not be so easy for these learners. What may be needed is to simultaneously develop competency in the English language and the language of the discipline. Nevertheless deep learning and understanding as opposed to surface learning and learning by rote is more likely to be encouraged

when students are given more opportunities to talk about their experiences, reflect on them and write about them (Boughey, 2001).

Nightingale (1988:81) also describes the relationship between language and learning as 'interlocking spirals up which a learner moves unevenly'. This suggests that there is a scaffolding process at work and that learning takes place by degrees (Ballard & Clanchy, 1988). The literacy by degrees thesis is that learning in higher education 'is a process of gradual socialization into a distinctive culture of knowledge' (Ballard & Clanchy, 1988:14). When a learner finally makes sense and has created meaning, 'the language and the cognition intersect', and, 'the learner is capable of articulation of the knowledge' (Nightingale, 1988:81). An articulate student is thus viewed as one who understands what they write and talk about. Nightingale (1988) therefore advocates that student:

> ... writing and speaking must be included as part of the learning process. When that is done teachers will not only use student writing to discover what students have already learned; they will use student writing to encourage and improve learning (Nightingale, 1988:66).

Nightingale is suggesting that encouraging more student writing not only enhances learning but also that student writing can reveal information about students'

11

learning. However as was argued above these arguments may have different implications when the learners learn using English as an additional language. The students' competency in the language of English must be taken into consideration because in this scenario the students may be struggling with both the language of the discipline and the language of English. In this situation the students may have the understanding but may not be able to express that understanding through the medium of English.

Taylor (1988) who also assumes English first language learners explains that:

> ... deficiencies in students' writing it should now be clear, are in some measure due to confusions or vagueness about content. What students' writing does is to furnish us with linguistic evidence of these confusions and vagueness (Taylor, 1988:64).

This confusion and vagueness about content however may not necessarily be a problem of communication competency in the English language because as Taylor (1988) explains:

> Inadequate English is very often the product of an insecure understanding of the material and an ignorance of how to go about analysing it. This happens when we pay close attention to what actually happens in undergraduate writing .... (Taylor, 1988:58).

Taylor (1988) and Nightingale (1988) although they are assuming English first language speakers in their arguments, raise a number of critical issues here concerning the relationship between language and learning in general and writing in particular. Firstly language and learning are viewed as interdependently related and a student is deemed articulate when language and cognition coincide, that is the student knows what they are writing (and talking) about. The nature and quality of a student's language is therefore related to the nature and quality of a student's learning. Secondly students' inadequate English' and 'deficiencies in writing' may be related to students' 'confusion and vagueness about content' and therefore may not be related to the students' communicative competency in the English language (that is basic interpersonal communicating skills).

The implication then is that educators may mistakenly believe that students' failure to express themselves is explained as an 'inadequate English' problem when the 'poor syntax arises because some students do not know, or only dimly know, what they are talking about' (Taylor, 1988:58). What Taylor is pointing out here is that it is the students' understanding / knowing (cognition) that is the problem and not their communication competency in the language of English. Students are inarticulate because they do not know what they are writing and talking about. This understanding has similar implications for learners who learn using English as an

additional language. Educators of these students argue that they cannot understand what these students write and talk about and believe that the problem is the students' communicative competency in the language of English. They then suggest that what these students need is an English language course to improve their English and assume that this will enhance their learning.

An example may help clarify this issue. A student of economics who learns using English as an additional language may not be able to articulate his/her understanding of an economic theory. Is this because of his/her communicative competency in the English language (a language problem) or is this because the theory is not understood (a cognition problem)? One possible answer is that the student is not able to think and reason in economics, because the language and the cognition are not intersecting following Nightingale (1988). The student does not understand what he/she is talking and writing about and because of this the student is not making economics sense. This then is a language of Economics acquisition problem (an academic literacy acquisition problem) and may not be related to the students' communicative competency in the language of English. The language of the student in this case is confused because the student has a confused understanding of the topic.

The solution may lie in somehow improving the students' understanding of economics and not necessarily through more English in an English language

course. This is why the Academic Literacy (AL) course designed for 'at risk' students described in this study is focused on the acquisition of academic literacy rather than as an ESL (English Second Language) or an EAP (English for Academic Purposes) course (see also the discussion in section 1.3 above). The focus in an AL course is on how to learn the language of the discipline, using the example of Economics, this would mean being able to talk, write, think, and reason in the language of Economics. However this ability to be articulate in Economics has come about because the student understands and knows what they are talking and writing about. Hence what is critical is the student's knowing and understanding of the discipline. Nevertheless some may argue that what is needed is to develop the English language in tandem with the language of the discipline because the two are inseparable, particularly when students enter into a first time English only environment.

This theoretical discussion suggests that when doing research on 'at risk' African students who learn using English as an additional language it is important to understand how language and learning are interdependently related and not to confuse a student's 'inadequate English' as only a communication competency in English problem when the problem of the student may be a confused understanding of content which is a cognitive problem. On the other hand it is also important for the researcher to be able to distinguish between a learning problem that is more about language (a communicative competency in the English

language problem) and less about cognition (learning). For some African students the higher education institution may be a first time English only environment and in this situation developing the language of English is as important as developing the language of the discipline.

The relationship between language and learning has been examined so far without considering the social context, that is how socialisation and cultural forces shape language and learning, 'becoming literate involves becoming acculturated: learning to read and write the culture' (Ballard & Clanchy, 1988:19). Thesen (1998:39) views literacy 'as situated in particular social practices, rather than as a universal category, transferable across contexts'. African students who come from former Department of Education & Training (DET) schools (particularly in rural areas and townships); from working class socio-economic backgrounds, and, from predominantly African Language (limited English language) backgrounds, have been shaped linguistically and cognitively by these experiences, and, may find difficulty with the culture of language and learning and finding their identity in a higher education institution (particularly in Kwa-Zulu Natal). Ballard & Clanchy (1988:13) argue that 'few seem to recognize the problem for what it is – an unsteady transition between cultures'. The legacy of apartheid has resulted in the higher education institution (in which this research is being conducted) in being dominated by 'white' academics from middle class socio-economic and English first language backgrounds. However the current student population (2001) in the

institution is predominantly African and Zulu speaking. These students may have language and cultural experiences at school and home that make them unprepared and under-prepared for higher education.

On the other hand African students who come from former Model C schools (white schools in urban areas) and from middle class backgrounds in the region may more easily fit in and find their identity in the institution. The middle class in South Africa is currently undergoing rapid expansion and structural change. The economist Terreblanche (2003:19) has examined the changed income and employment patterns over the past thirty years and divides South Africa's population of forty five million people into three socio-economic classes of fifteen million each. He identifies 'a non racial and rich middle class' of four million 'white' people and eleven million 'black'. He says 'this class is living in the brightness of daylight'. Then there is a 'poor lower class (or workers' class) who are mainly 'black' and describes 'this class as living in the twilight'. Lastly there is a 'black (and mainly African) underclass' and these people live 'in the darkness and coldness of a seemingly everlasting winter night'.

The linguists Ballard & Clanchy (1988) argue that those students who are able to 'appropriate styles of cognitive or linguistic behaviour' (that is fit readily into the culture of higher education) are more likely to become literate in higher education

and those that have difficulty in adapting to the culture are more likely to become illiterate:

> Becoming literate in the university involves learning to 'read' the culture, learning to come to terms with its distinctive rituals, values, styles of language and behaviour. The converse is also true: most student illiteracy is the result of a misreading of the culture, a failure to observe the appropriate styles of cognitive or linguistic behaviour (Ballard & Clanchy, 1988:8)

For some students the higher education institution may be 1) a first time English only language environment; 2) they may come from the under class described by Terreblanche (2003); and 3) they may have attended a rural school. How would these students cope with the 'styles of cognitive and linguistic behaviour' expected from them in higher education? As a coping mechanism and as a result of their incompatible socialisation experiences at home and at school, these students may adopt a surface approach to learning, rote learn and mechanically reproduce what is given with little understanding. They would find difficulty in understanding the language used in lectures, with reading and they would most likely have great difficulty in expressing their knowledge in tests and in essays. Lastly they may find it extremely stressful to interact with lecturers and other students from the other socio-economic classes. They would then find themselves marginalised and

alienated and be denied the benefits of a higher education and may even drop out from higher education altogether.

How students have been socialised is of particular importance in the South African context. McMillan (2003) in her study on teacher college students argues that 'race, class and gender are significant to the construction of narrative understandings of social reality in general, and of academic performance in particular' (McMillan, 2003:112). Scott (2001:3) explains that the 'articulation gap between learners' school attainment and the intellectual demands of higher education programmes' are wide (a consequence of the legacy of apartheid) and a cause for concern. Von Gruenewaldt (1999) describes an additional gap between the home and the school:

> Because students are culturally conditioned to certain modes of spoken and written discourse through their home environment, the proximity (or the remoteness) of the home discourse system to that of school is a significant factor in the acquisition of academic literacy (Von Gruenewaldt, 1999:208).

The gap between schools and higher education is further highlighted by Thomson (2002). She refers to a study done in 1999 on South African schools, the President's Education Initiative Research Report (PEI) 'Getting Learning Right'. In this report, two researchers Vinjevold and Taylor state:

Our researchers found that what students know and can do is dismal. At all levels investigated by PEI projects, the conceptual knowledge of students is well below that expected at the respective grades. Furthermore, because students are infrequently required to engage with tasks at any but the most elementary cognitive level, the development of higher order skills is stunted. Books are very little in evidence and reading is rare. Writing is also infrequent and, when practiced by students, hardly ever progresses beyond single words or short phrases (Thomson, 2002:198).

The PEI Report provides clear evidence that language development (reading and writing in particular) and cognitive development (higher order cognitive skills in particular) is not taking place in many South African schools. In terms of Cummins's model (discussed in the next section) these schools have failed to shift learners into the CALP quadrant (see Figure 2.1 below), that is these learners are not able 'to manipulate and interpret cognitively-demanding context-reduced text' (Cummins, 1984: 142).

2.3 LEARNING USING ENGLISH AS A SECOND OR ADDITIONAL LANGUAGE

Cummins's (1984) model (see Figure 2.1) concerning the relationship between language, bilingualism and learning is of particular interest in this study, because

all 'at risk' students in the study learn using English as an additional language. Cummins's model has been found a useful reference point by a number of South African linguists; Quinn (2002), Granville (2002), Blunt & Goodier (2002), Clarence-Fincham (2000). Cummins (1984:149) believes 'that conversational and academic aspects of language need to be distinguished'. Cummins (1984) model distinguishes between every-day use of language, that is 'basic interpersonal communicative skills (BICS) and (CALP) 'cognitive academic language proficiency' (Cummins, 1984:136). This distinction is important in higher education because it might be assumed that because a student can speak English well, that is, has highly developed BICS the student will be academically successful. Clarence-Fincham (2000:142) argues that 'it is CALP rather than BICS which is crucial to learners' academic success'. An aim of the Academic Literacy Course is to facilitate a shift into the CALP quadrant in figure 2.1 below.

Cognitively Undemanding

BICS

Context Embedded ——————— ┊ ——————— Context Reduced

CALP

Cognitively Demanding
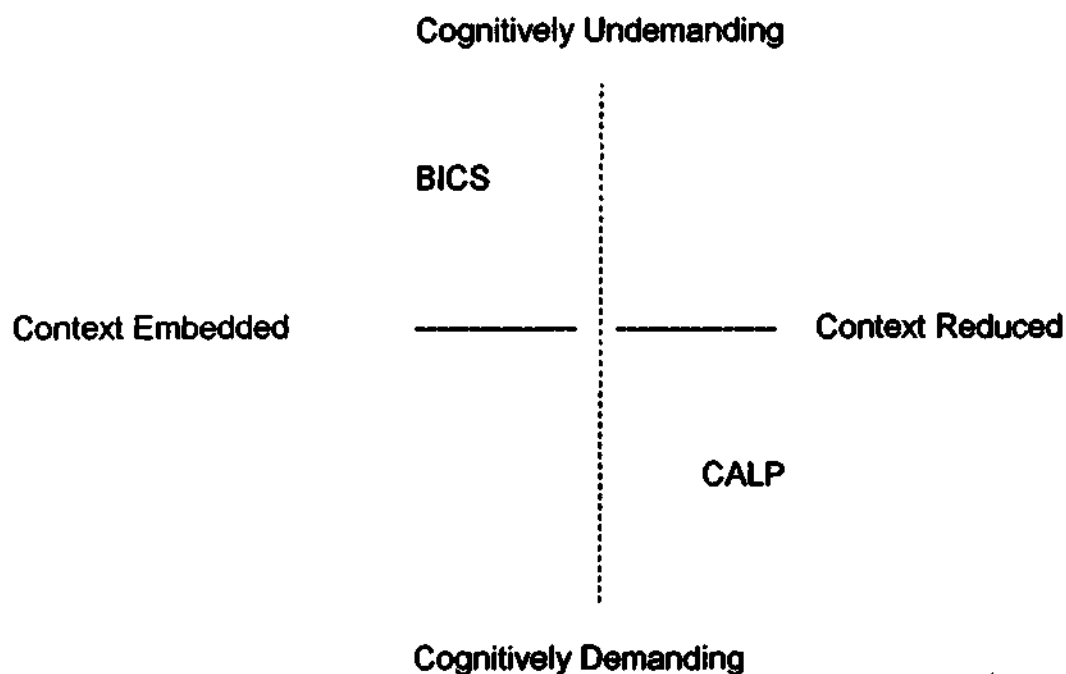
FIGURE 2.1: CUMMINS'S MODEL

Cummins makes other linguistic distinctions. A context-embedded (see Figure 2.1 above) communication of information implies strong 'contextual support available for expressing or receiving meaning' and 'negotiating meaning' (Cummins, 1984:138). In this situation 'the language is supported by a wide range of meaningful paralinguistic and situational cues', for example a one-on-one discussion between a learner and a teacher. On the other hand a context-reduced communication 'relies primarily on linguistic cues to meaning and thus successful interpretation of the message depends heavily on knowledge of the language itself'. In this situation there is an absence of cues, for example when a lecturer describes a theory to a class and uses no aids to back up his words. In a

cognitively-undemanding task or activity, Cummins (1984:139) explains that the 'linguistic tools have become largely automatized (mastered)', for example in a simple exchange when learners greet a lecturer. In a cognitively-demanding task however the linguistic tools 'have not become automatized and thus require active cognitive involvement' (Cummins, 1984:139). If in addition there is an absence of contextual clues to facilitate understanding, the task is experienced as cognitively-demanding and context-reduced. Cummins (1984:141) suggests that a 'major aim of schooling' is to develop students' ability 'to manipulate and interpret cognitively-demanding context-reduced text', and argues that 'students' language and academic problems are usually confined to context-reduced cognitively-demanding situations' (Cummins, 1984:142). That is the quadrant CALP in figure 2.1 above. The PEI Report (Thomson, 2002) referred to above suggests that this 'major aim of schooling' (that is the development of CALP) is not taking place in South African schools.

These language issues that Cummins raises became clearer when the researcher experienced a first year student who could not speak and write English. He was immediately branded as 'academically illiterate' and the question came to mind, 'what was he doing in higher education?'. When the student records were checked it was discovered that the student was from Ethiopia, spoke Arabic (his mother tongue) and an African language. His schooling was excellent and his Maths

results were above average. In Cummins's framework his level of CALP (in Arabic) most likely involved experiences and tasks that could be described as cognitively-demanding and context-reduced. He had no CALP experience using the English language, the language of learning in his higher education institution. This is explained as a 'dual iceberg' theory of bilingual proficiency or a 'common underlying proficiency principle' (Cummins, 1984:143):

> The interdependence or common underlying proficiency implies that experience with either language can promote development of the proficiency underlying both languages, given adequate motivational exposure to both either in school or in the wider environment (Cummins, 1984:143).

Cummins makes the suggestion that bilingual students who:

> ... are academically at risk, strong promotion of first language conceptual skills may be more effective, than either a half-hearted bilingual approach or a monolingual English "immersion" approach (Cummins, 1984:149).

Von Gruenewaldt (1999) refers to studies that support Cummins's ideas:

> Research findings indicate that students are more successful in acquiring second language literacy if they have already mastered strategies for negotiating meaning in print in their first language (Von Gruenewaldt, 1999:206-207).

Clarence-Fincham (2000:144 -145) argues that 'if CALP has not been developed in the first language, then the learner is likely to experience considerable difficulty with CALP related tasks in the second language'. For example 'the switch from Zulu as a LOL (Language of Learning)' is taking place too soon, and should 'be introduced as a language of learning (LOL) only when the learner is twelve or thirteen' rather than at the age of ten as is current practice (Clarence-Fincham, 2000:145). The switch from Zulu as a LOL at twelve or thirteen would give the learner more time to develop cognitive academic language proficiency in the mother-tongue and facilitate transfer of 'these skills into a second language' that is, English, the LOL for the students in this study (Clarence-Fincham, 2000:145). The Ethiopian student (described above) by contrast with highly developed CALP in his mother tongue although initially experiencing difficulty in learning and expressing himself in the English language completed his higher education course in normal time (three years) and was appointed a student tutor in his second year of study.

Cummins's distinctions between BICS and CALP (Cummins, 1984) highlight the possibility that African 'at risk' students in the study may experience difficulty with CALP related tasks and yet have developed BICS in the English language or perhaps that both BICS and CALP are underdeveloped. These insights may prove

to be useful conceptual tools for understanding how African 'at risk' students learn when they learn using English as an additional language.

2.4 LEARNING

Although the researcher acknowledges the interdependent relationship between language and learning and that the 'at risk' students in the study learn using English as an additional language (as demonstrated above) the main focus of the study is on gaining an understanding of how African 'at risk' students learn. The researcher seeks to investigate three areas of learning and narrows the investigation to 1) perceptions of learning whether deep or surface; 2) learning styles using Kolb's theory; and 3) use of self-regulating learning strategies that is metacognitive behaviour.

How students approach learning has been widely researched by Biggs (1987;1989;), Entwistle and Ramsden (1983), Marton, Hounsell and Entwistle (1984) and Marton and Saljo (1984). What this research seems to suggest is that what students do is more important than what lecturers do, that is the focus in higher education ought to be on learning, the learner and facilitating and encouraging deep and independent learning. Biggs (1989:19) refers to 'contextual factors leading to deep learning' (or 'aspects of teaching contexts' that encourage deep learning) and they are, 'an appropriate motivation context, a high degree of learner activity, interaction with others, a well-structured knowledge

base' (Biggs,1989:17).   Ramsden (1998) possibly captures the main ideas of this research.   What he makes clear is the interconnection between approaches to learning, approaches to teaching (and nature of the tasks set) and the nature of the assessment, that is, perceptions of learning, styles of teaching and methods of assessment are interdependently related:

> "Deep approaches" (aimed at understanding), academic achievement, self-reported skills development and overall satisfaction are associated with good teaching, clear goals, and appropriate assessment. "Surface approaches", aimed at satisfying assessment requirements minimally, are related to poor teaching, unclear goals, and inappropriate assessment. (Ramsden, 1998:352)

A deep perception of learning is viewed in this study as being associated with conceptions of learning as 1) understanding; 2) making meaning; 3) seeing something in a different way and widening one's view; and 4) changing as a person (Sitoe, 2000). Students who have a deep perception of learning are more likely to adopt a meaning orientation (Pickworth, 2001). On the other hand a surface perception of learning is viewed in this study as being associated with conceptions of learning as 1) increasing knowledge; 2) mechanical memorising and with no attempt to understand and make meaning; and 3) application of knowledge (Sitoe, 2000). Students who have a surface perception of learning are more likely to

adopt a reproducing orientation (Pickworth, 2001). The study thus seeks to investigate whether 'at risk' students hold deep perceptions of learning (a meaning orientation) or surface perceptions of learning (a reproducing orientation).

The literature on learning (Biggs, 1987; Mpofu and Oakland, 2001; Pickworth, 2001), also seems to suggests that it is motivation rather than strategy used in learning that has a significant influence on learning. In this study it is assumed that a motivation to adopt a surface approach to learning is generally extrinsic (comes from without) and is often associated with students who rote learn and do the bare minimum (Mpofu & Oakland, 2001). A surface approach to learning is thus viewed as 'disastrous, leading to a lack of insight, understanding and application of knowledge and poor long term retention' (Pickworth, 2001:140). On the other hand a motivation to adopt a deep approach to learning is generally intrinsic (comes from within) and is associated with an 'interest in the subject matter and its related ideas', and the learning strategy is 'to understand what is to be learned through inter-relating ideas and developing conceptual frameworks' (Mpofu & Oakland, 2001:20). In this study it is assumed that when a student adopts a deep approach to learning there is a strong link to the notion of meaning, to 'the notion of change or of gaining a better understanding of reality by abstracting meaning from what is presented' (Purdie, Hattie & Douglas, 1996:89).

Learning styles in this study are investigated using Kolb's Experiential Learning Theory (Kolb, 1993). This theory combines a theory of learning and a theory of learning styles. Kolb (1976:3) believes that human development involves four critical learning abilities: experiencing or feeling (that is being 'open to new experiences'), observing or watching (and reflecting on observations 'from many perspectives'), conceptualising or thinking (being able to create concepts 'that integrate observations into logically sound theories') and experimenting or doing ('using these theories to make decisions and solve problems'). More formally Kolb describes the learning abilities using symbols CE, RO, AC, and AE:

1) experiencing / feeling as immediate involvement / concrete experience (CE);

2) watching as reflective observation (RO);

3) thinking as analytical detachment/abstract conceptualisation (AC); and

4) doing as active experimentation (AE).

In sum his four learning abilities are CE, RO, AC and AE.

In Kolb's model the way these four learning abilities CE, RO, AC and AE interact determines deep learning (see Figure 2.2 below on page 30). Deep learning is viewed by Kolb as a cyclical process and requires a learner to move 'in varying degrees from actor to observer, from specific involvement to general analytic detachment' (Kolb, 1976:3). Deep learning is also associated with an ability of a learner to 'resolve the conflicts between being active and reflective and between

being immediate and analytical' (Kolb, 1976:4). Kolb points out that all these abilities are shaped by socialisation:

'through socialisation experiences in family, school and work we come to resolve the conflicts between being active and reflective and between being immediate and analytical in characteristic ways (Kolb, 1976:4).

Kolb's ideas on how socialisation influences learning styles (active, reflective, immediate, analytical) concur with the arguments on the influential role of socialisation on language (literacy) and learning discussed above.

The four learning abilities (CE, RO, AC, AE) can be used to explain (also see Figure 2.2 below) how students prefer to receive information and process information (Svinicki & Dixon, 1987). When *receiving information* there are two possible channels (the vertical axis CE/AC in Figure 2.2 below) to use CE (a practical experience) or AC (a theory read in a textbook or attendance at a theory lecture) and when *processing information* (the horizontal axis AE/RO in Figure 2.2 below) there are two possible channels to use RO that is 'internally reflecting on the experience' or AE through 'externally acting upon the conclusions that have been drawn' (Svinicki & Dixon, 1987:141-142).

The four learning abilities combine to form two possible poles:

1)   a concrete-abstract pole CE/AC (the vertical axis in Figure 2.2 below) and

2)   active-reflective pole AE/RO (the horizontal axis in Figure 2.2 below). These poles when combined are used to determine a student's preferred learning style at a particular stage of their development (see quadrants 1-4 in Figure 2.2 below). Each quadrant explains a learning style. Quadrant 1 locates a concrete-reflective learning style (CE/RO learning abilities are dominant) and in Kolb's framework is described as a diverging learning style. This style is particularly required in the Fine Arts and Fine Arts professions. Quadrant 2 locates an abstract-reflective learning style (RO/AC learning abilities are dominant) and result in an assimilating learning style particularly required in Maths sciences and Economics and related professions. Quadrant 3 locates an abstract-active learning style (AC/AE learning abilities dominate) and these determine a converging learning style particularly required in Engineering sciences and in Engineering professions. Quadrant 4 locates a concrete-active learning style (AE/CE learning abilities dominate) and this is described as an accommodating learning style in Kolb's framework. This is particularly required in Sales Management and in Education (Teacher Training) fields and professions.

```
                          CE
                          ¦
                          ¦
           4              ¦              1
                          ¦
                          ¦
                          ¦
     AE _____¦_____ RO
                          ¦
           3              ¦              2
                          ¦
                          ¦
                          ¦
                          AC
```
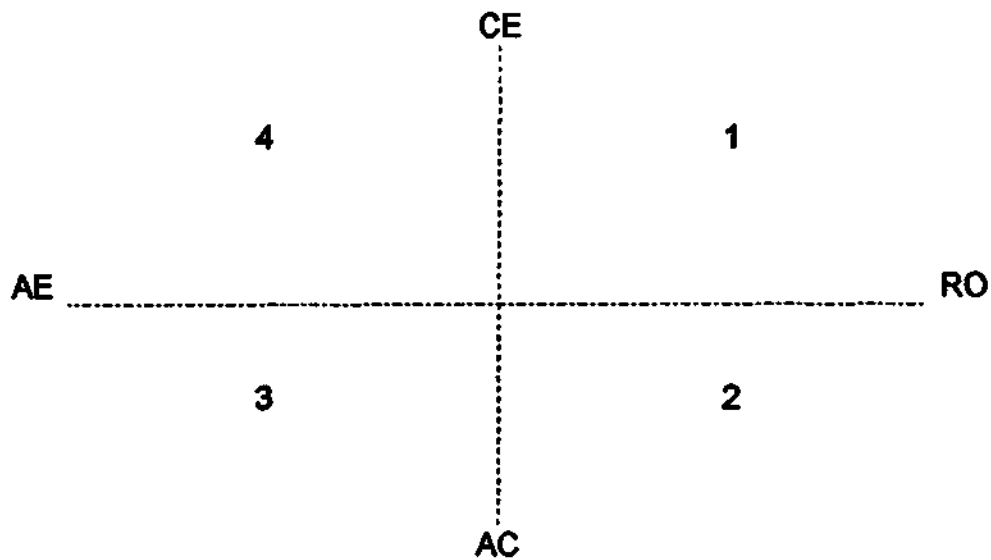
FIGURE 2.2: KOLB'S MODEL

No specific learning style can be viewed as superior and what learning style a learner uses is dependent on stage of development and socialisation. However effective learning requires a student to have flexible learning abilities and the ability to adapt to different tasks. Deep learning is viewed as a cyclical process requiring a learner to make use of all four learning abilities (CE, RO, AC and AE) depending on the task set. Learners are some times involved in tasks where they are either directly involved (CE) or analytically detached (AC) when receiving information (the axis CE/AC in Figure 2.2 above). Some tasks when processing information (the axis AE/RO in Figure 2.2) require them either to be actors and apply knowledge (AE) or to be observers and able to reflect (RO). Good teaching would involve students with opportunities to develop all the learning abilities CE, AC, AE, RO. It is these learning abilities of 'at risk' students that are investigated in this study.

The study is also investigating 'at risk' students' learning strategies that are related to self-regulation, that is metacognition. Salema and Valente (1990:163) define metacognition as 'students' knowledge awareness and control over their thinking processes during learning tasks'. Du Toit (1997:175) explains that metacognition refers to a learner's 'ability (or inability) to stand back in order to analyse or monitor one's own thinking', and, also as an ability 'in monitoring the effectiveness of their own study skills and other cognitive processes, including reading'. Coats (2002:76) claims that the 'two most important skills that must form part of any metacognitive process' are 'the ability to self-monitor and self-assess'. Kaniel (1999:4) describes 'cognitive management activities' as 'planning, checking, examination, criticism and evaluation'. Kaniel's (1999:5) key point is that learners need to believe that 'learning is occurring in their own heads and subject to their own control and responsibility'.

The Open University, England (UK) has embedded a learning outcomes based and a metacognitive approach into their course design (Coats, 2002). All course learning outcomes and the metacognitive approach that is encouraged is reinforced during delivery of the course (in the teaching) and in the assessment of the course. Coats (2002:81) believes 'that introducing students to a metacognitive approach, which encourages them to understand more fully how they learn best, can increase their autonomy as learners, and, give them greater knowledge and control over, their learning processes'. Furthermore Coats argues that 'the clarity

33

with which explicit learning outcomes are expressed and assessed can contribute to metacognitive awareness and hence autonomy' (Coats, 2002:81).

Purdie, Hattie & Douglas (1996:88) in their study identify fourteen self-regulated learning strategies: self-evaluation, organising and transforming, goal setting and planning, seeking information, keeping records and monitoring, environmental structuring, self-consequences, rehearsing and memorising, seeking social assistance (from peers, teachers, other adults) and reviewing (notes, books or tests). Purdie *et al* (1996) research has identified a link between a student's use of these self-regulated learning strategies and academic achievement. High achievers are associated with displaying significantly greater use of thirteen of the fourteen strategies (Purdie *et al.*, 1996:88). Their findings show that 'a conception of learning as "understanding" is associated with a greater total use of strategies' (Purdie *et al.*, 1996:87), and, they also found that 'students who are more proactive in their learning, that is, who demonstrate greater overall use of strategies are more likely to think of learning as a complex cognitive process than as a "gathering and collecting" one' (Purdie *et al.*, 1996:97).

2.5 CONCLUSION

A number of theoretical understandings, conceptual lenses and tools emerge out of this literature study on language and learning. Firstly, there is a suggestion of an interdependent relationship between the nature and quality of a student's language

34

and the nature and quality of the student's learning. However this relationship can be broadened to include teaching and assessment, that is, there exists an interdependent relationship between language (literacy), learning (deep or surface), teaching (type of task set) and method of assessment. Secondly Cummins's model and the PEI Report suggest that first year higher education students may not have made the shift to the CALP quadrant in Cummins's model and therefore may experience difficulty with cognitively-demanding and context-reduced text, tasks and or situations. Thirdly a key link between language and deep learning is the notion of understanding and making meaning. When a learner understands what they are talking and writing about they are more likely to be articulate. Fourthly, Kolb's model suggests that deep learning and learning styles are explained by the interaction and interrelationship of four learning abilities (CE, RO, AC, AE). Fifthly the literature suggests that language and learning are shaped by cultural forces (socialisation) and that when students enter into higher education they are more likely to be in transition between cultures. The legacy of apartheid has resulted in a wide cultural gap between high school and higher education. Finally a link can be made between deep learning and metacognition. When learners make use of metacognition, that is, when they use self-regulating learning strategies (self-monitor and self-assess) this encourages intrinsic motivation and independent learning and this behaviour is associated with a deep approach to learning.

CHAPTER 3

METHODOLOGY AND RESEARCH DESIGN

3.1 INTRODUCTION

An exploratory case study approach in the interpretive paradigm has been chosen as the preferred and appropriate methodological stance in this study. The reasons for this choice of methodology and the methods used to collect data, are the main concern of this chapter.

3.2 THE NATURE OF EDUCATIONAL KNOWLEDGE, ASSUMPTIONS AND RESEARCH PARADIGMS

A key issue facing all researchers is to understand how to go about producing knowledge. Because this study is in the field of education, a particular concern must be with how to generate rigorous educational knowledge. Educational knowledge is understood as having as its main concern people in a social process of learning. Education, because it has a human and social interest is located in the family of social sciences. Hence what distinguishes educational research from research in the natural and or physical sciences is that research in education is on people. This human and social interest creates a problem for educational researchers, what Luckett (1995) explains as the 'problematic nature of educational knowledge', which refers to 'whether it is possible for the researcher to

stand outside of his/her own sets of values and assumptions (ideologies) in order to observe the world correctly?' (Luckett, 1995:720). What Luckett here suggests, is that in educational research in particular and in social science research in general, it is necessary for a researcher to make explicit the values and assumptions underpinning the research, what she refers to as a researcher's 'ideologies'. This is also possibly necessary because human and social sciences are more likely than natural sciences to be associated with a 'moral science' (Skinner, 1999:124).

An educational researcher compared with a natural science researcher may find greater difficulty in ignoring 'ideologies', that is, their own underlying assumptions, values, beliefs and interests. This is because the latter strongly influences how a researcher conceptualises research (Frame, 1996). It is therefore necessary that educational researchers make explicit their assumptions, values, beliefs and interests, that is, make explicit their paradigm, and, in addition have a good 'grasp of the nature of the paradigm' (van der Mescht, 2001:7) they are working in.

The concept of a paradigm is understood in a number of different ways and the different metaphors used to describe the concept for example, 'lenses', 'touchstones', and 'goggles' provide useful insights into the understanding that a paradigm shapes the what, the how and the why of research. Frame (1996:14-16) for example writes about paradigms as 'conceptual lenses through which

problems are perceived', as a 'frame of mind' which 'dictates what one sees', and, as 'conceptual frameworks which shape and govern the kind of questions asked'.

Guba and Lincoln (1989:80) quoted in Frame (1996:15) view a paradigm as 'a set of beliefs, a set of assumptions we are willing to make, which serve as touchstones in guiding our activities'. Cantrell (1993:100) in van der Mescht (1999:1) refers to 'the importance of wearing appropriate goggles, interpretive one's for interpretive studies, positivist ones for positive studies'. It is essential that a researcher makes explicit the paradigm within which the research is conducted.

Different assumptions in research are also associated with different knowledge interests, central dispositions and aims (Frame, 1996; Terre Blanche & Durrheim, 1999). Habermas's theory of knowledge-constitutive interests identifies three possible interests a researcher could adopt 1) technical; 2) practical; and 3) emancipatory. Each of these interests are respectively associated with a way of knowing, that is an epistemology and a paradigm (in brackets): (1) empirical-analytical (a positivist paradigm); (2) historical-hermeneutic (an interpretive paradigm); and (3) critical (an emancipatory paradigm). Each of these interests are also associated with different 'central dispositions' of the researcher 1) a skill, that is the ability to predict and control is the main concern of the positivist

researcher; 2) making a judgment is associated with interpretivist approaches; and 3) critique with critical approaches (Frame 1996). A researcher who has a technical interest in research (a positivist paradigm) focuses on laws and wants to predict and control human behaviour. The social science economics is a good example of a positivist science (Mohr & Fourie, 2000). A researcher with a practical interest (an interpretivist paradigm) would focus on contextualised understanding of the social situation and seeks to make a 'judgment through interpretation and understanding' (Frame, 1996:26). On the other hand a researcher with a critical interest (an emancipatory paradigm) would focus on critique and aims to 'emancipate people from taken-for-granted assumptions' and to 'empower with new insights' (Frame, 1996:7).

Terre Blanche and Durrheim (1999) distinguish three research paradigms (positivist, interpretive and constructionist) on the basis of three dimensions, (ontology, epistemology and methodology). They suggest (Terre Blanche & Durrheim, 1999:6) that because positivists have an ontological belief that 'what is to be studied consists of a stable and an unchanging external reality', this allows the researcher to adopt 'an objective and detached epistemological stance' to reality. The researcher is then enabled to 'employ a methodology that relies on control and manipulation of reality'. On the other hand, a researcher who uses an interpretive approach 'believes that the reality to be studied consists of peoples

subjective experiences of the external world'. This allows the researcher to 'adopt an intersubjective or interactional epistemological stance towards that reality' and to 'use methodologies (such as interviewing or participant observation) that rely on a subjective relationship between researcher and subject' (Terre Blanche & Durrheim, 1999:6). However, if reality is understood by the researcher to be socially constructed as constructionist researchers do, then the researcher 'may adopt a suspicious and politicised epistemological stance' and 'employ methodologies that allow the researcher to deconstruct versions of reality' (Terre Blanche & Durrheim, 1999:6).

When distinguishing the aims of research, Terre Blanche and Durrheim (1999:6) explain: 1) that positivists seek 'to provide an accurate description of the laws and mechanisms that operate in social life'; 2) interpretivists aim 'to explain the subjective reasons and meanings that lie behind social action'; 3) constructionists want 'to show how versions of the social world are produced in discourse, and to demonstrate how these constructions of reality make certain actions possible and others unthinkable'.

This study is not a positivist or constructionist study. The researcher has a practical interest, that is, he seeks contextualised understanding of 'at risk' students. The reality to be studied is 'at risk' students' experiences of learning (perceptions,

strategies and styles) captured mainly through eliciting personal responses in questionnaires. The researcher's 'central disposition' is to make a judgment on 'at risk' student's perceptions of learning, use of learning strategies (self-regulating) and learning styles. He has a 'practical interest' in 'at risk' students, that is, the researcher's intention is to make a sound judgment through contextualised understanding. The aim of his research is to interpret the meaning of 'at risk' students' responses elicited from questionnaires. These sets of assumptions, values and beliefs also allow him to be 'the primary gatherer and interpreter of meaning' (Greene, 1994:53), 'the primary instrument of data collection' on 'at risk' students, and, 'the medium through which the interpreted world' of 'at risk' students is to be presented' (van der Mescht, 2001:4).

This points to a greater amount of subjectivity involved in this research. However subjectivity is not necessarily a problem for some researchers. Greene (1994:536) believes that 'interpretivist inquiry is unabashedly and unapologetically subjectivist', and, van der Mescht (2001) advisedly suggests that 'this does not mean that subjectivity is not potentially problematic; it is as problematic as positivists' claims for objectivity' (van der Mescht, 2001:5). Gillham (2000:7) also advisedly, argues that 'this does not mean you ignore the objective (what people do, what records show, and so on), but that you are after the qualitative element: how people understand themselves, or their setting - what lies behind the objective evidence'.

The knowledge generated in this study may be useful to those interested in academic development. The researcher who sees himself as an academic development practitioner is in an ongoing process of reflection on own practice (theorising) with a view to not only better understanding his practice, but also to improving his practice (Luckett, 1995; Walker, 1993). This suggests that this study can be viewed as ongoing research and could inform further research and possibly a first cycle of plan, act, observe and reflect in some future action research (Hay & Buchner, 1998; Evans, 1995; Zuber-Skerritt, 1996).

3.3   TRUTH AND VALIDITY

In this interpretive study the researcher is not depending on universal laws in determining what is true.   He prefers to rely on the role of human judgment and human agency in deciding what is truth (Frame, 1996).   Researchers for example Tesch (1990:12) believes that 'truth is ultimately a matter of socially and historically conditioned agreement', and, Newman (1999:12) similarly believes that 'by touching base with other's interpretations ... reflects a communal interpretation - a "knowing" that is more than just my own personal construction'. Frame (1996:25) suggests that it is 'intersubjective consensus' that makes objectivity possible and therefore there is no need to rely on universal laws.

Newman (1999:13) argues that 'there is no objective test of "validity" - the technical/rational research community is forced to judge "validity" in an interpretive way'. Newman (1999) therefore prefers the notion of 'resonance' rather than 'validity' when testing a piece of research:

> I'm not looking for correspondence ... rather I'm looking for what I have come to call "resonance" - does the account seem believable, does it help me to think about the problematic of my working situation? (Newman, 1999:14)

Newman (1999) explains that what she examines when she reads a research report are the following:

> Does it offer enough thick description for me to "live" in the situation, to see it in depth? Does the account situate itself in the research conversation, does the writer make clear the debates which have influenced his/her thinking? Are the writer's assumptions made explicit and do they reflect on them? Does the account offer some thoughts on "So What?" How has the work affected the way in which the writer engages in his or her professional work. (Newman, 1999:13-14)

Luckett (1995:728) pertinently asks, 'what assurances do we have that research is more than the subjective interpretations and reflections of a group of individuals?'. Using Winter (1989) she makes a few suggestions. Firstly she advises that there are alternatives to positivist approaches, 'one should insist on only modest claims for one's findings. One is not looking for final certainty, one is not aiming to address a universal audience and one should not claim generalisability for the results' (Luckett, 1995:728). Secondly Luckett (1999) also following Winter (1989) explains that validity in findings 'lie in the extent to which researchers are able to come up with a practically and theoretically feasible strategy for action', that is, 'the improvement of professional practice' is the 'criterion for the validity of the research' (Luckett, 1999:728). This suggests that 'provided the research has been validated in a particular practice, it will be "illuminating" and have "significance" for a wide range of practitioners operating in similar contexts' (Luckett, 1995:729). This researcher's educational practice is located in the field of academic development and it is in this context and community that his research ought to be validated.

3.4 CASE STUDY RESEARCH

A case study approach to this research also seems to be appropriate for the following reasons. Gillham (2000:1) defines a 'case' as 'a unit of human activity embedded in the real world; which can only be studied or understood in context; which exists in the here and now'. The 'case' in this study is one group of 'at risk'

students in an academic literacy course in technikon type higher education. The 'case study' following Gillham (2000:1) seeks 'to answer specific research questions', and, 'seeks a range of different kinds of evidence, evidence which is there in the case setting', and, 'which has to be abstracted and collated to get the best possible answers to the research questions'.

The 'case' in this study is ten 'at risk' students, five of which were identified as high achievers (HA) and five as low achievers (LA). This was done using the students' end of year examination results in their educational programme (Diploma in Retail Management). The average of three summative final examination marks on three of the five courses in their educational programme was used. They were Retail Business Management 1 (a major course), Business Management 1 and English Communication 1001. This average score was defined as 'the average examination score %' in Table 3.1 below. The Table shows the distribution of the ten 'at risk' students in the study by rank, age, gender, average exam score (2001 and 2002) and year of matriculation.

Comparing the end of year examination results in 2001 and 2002 shows that the method of ranking HA and LA students has some degree of consistency and that the groupings HA and LA have been determined with a measure of confidence.

Where there is an *(LA1 and LA2) these students had to repeat their first year major Retail Business Management 1 hence no score was recorded. The *LA4 student failed too many courses in the first year and was not allowed to continue studying in this educational programme in 2002.

TABLE 3.1: COMPARISON OF YEAR END RESULTS 2001 AND 2002

RANK	AGE	GENDER	AVERAGE EXAM SCORE %		YEAR MATRIC
			2001	2002	
HA1	18	MALE	73,1	67,0	1999
HA2	18	FEMALE	68,7	65,5	2000
HA3	20	MALE	64,5	58,0	1999
HA4	17	FEMALE	62,3	63,0	2000
HA5	20	FEMALE	62,1	46,5	2000
LA1	19	MALE	52,1	*	2000
LA2	18	MALE	49,6	*	2000
LA3	20	FEMALE	47,5	46,5	2000
LA4	19	FEMALE	37,0	*	1999
LA5	19	FEMALE	36,8	42,5	2000

3.5 METHODS USED TO COLLECT DATA

The main instrument used in the study to collect data has been the questionnaire. Questionnaires are a useful method of getting information about students. Because the researcher in the study was also the lecturer and the group was small, the questionnaires provided no major problems in administration. Completing the questionnaires formed part of the course work and they were done in class time and in the classroom. The researcher / lecturer was always available to help the 'at risk' student when problems and difficulties arose in the

46

administration of the questionnaire. The researcher made sure that the students were clear on what they had to do in the questionnaire, how to do it, and why they were doing it. However this does not mean that the questionnaires were free of limitations, other technical, practical and affective issues need to be considered.

Three questionnaires were used in the study one used open questions and two involved closed questions. Open questions allow the student to respond freely, however the resulting qualitative data is more difficult to analyse. However from an 'at risk' student's perspective completing this form of questionnaire would involve a writing task using the English language. Given that these students are not English first language speakers, readers and writers some students may not be able to accurately express themselves although they are free to do so. Open questions were used in the Student Learning Survey (SLS) see Appendix A.

Closed questions allow for more reliable data and are relatively easy to analyse. The closed questions used are in Likert -scale form and require a fixed response from the student to choose from. For example in Appendix B (Learning Style Inventory - LSI) the 'at risk' student has to rank the endings for each sentence and in Appendix C (Approaches to Learning and Studying Inventory - ALSI) the student has to simply place the number 5 (definitely agree), 4 (slightly agree), 3 (not possible to give a definite answer), 2 (slightly agree) and 1 (definitely disagree).

Because the 'at risk' student is not required to do any writing this type of questionnaire may provide more reliable data. The questionnaire does not have onerous English language demands, it appears to be easy to read, understand and complete, nevertheless the student may still misinterpret the question and not make a genuine choice. These limitations must be taken into account when doing the data analysis and when making conclusions.

In both the LSI and ALSI scores are generated from the forced choice items and these scores are used as data for analysis. Thus a large part of the data will be analysed by the use of quantitative processes. Each Questionnaire used in the study is explained in more detail below (see also the discussions in 2.4 above).

3.5.1 QUESTIONNAIRES

Student Learning Survey (SLS)

Data on students' perceptions of learning and learning strategies (that is use of self-regulating learning strategies) have been collected by means of a questionnaire survey. The Student Learning Survey (SLS) questionnaire (see Appendix A) is an adaptation of the one used by Purdie, Hattie and Douglas (1996) in a study on Australian and Japanese students. Permission was given by the author Graham Douglas on the 19/10/2001 and by the American Psychological Association on the 10/3/2001 to use and adapt the SLS to be used for research

purposes in this study.   Sitoe in his study (Sitoe, 2000) adapted the same questionnaire for his research into science and technology students in Mozambique.

The fact that the SLS had been used in other contexts and in particular Sitoe's (2000) study encouraged the decision to use the SLS in this study. The researcher met Sitoe at an Academic Development Conference at Rhodes University (2000) and this provided an opportunity to exchange ideas and this sparked an interest in a study on students' perceptions of learning in the researcher's own context.   In discussions at the Conference, Sitoe explained that Mozambique students language of learning in higher education involves three languages (African, Portuguese and English).   These students' mother tongue is an African language, the lectures are conducted in Portuguese and the scientific textbooks are mainly in English.   Sitoe (2000) in his conference paper concluded that:

From a qualitative analysis of those students' responses to an open-ended questionnaire, the findings suggest that most of the students appear to conceive learning just as accumulation, memorisation-reproduction and mechanical application of knowledge (Sitoe, 2000:1).

This raised the researcher's curiosity and interest to use the SLS to investigate his own students. The aim of using the SLS questionnaire in this study was to elicit student responses to open ended questions on 'at risk' students' perceptions of learning and their learning strategies, that is their use of self-regulating learning strategies or level of metacognitive knowledge (see also the discussion in section 2.4. above). This data was collected firstly in term 1 (April 2001) and then again in term 4 (September 2001) and the purpose here was to examine any changes.

This was the first questionnaire introduced to the 'at risk' students and was done in April 2001. The questionnaire requires personal responses to eight questions on their use of self-regulating learning strategies (questions 1 to 8) and one question (question 9) invites responses on students' perceptions of learning. Question 1 invites responses on a short tutorial test, question 2 is on essay writing, question 3 is on doing an assignment task, question 4 is on completing a project, question 5 and 6 is on end of term tests, question 7 is on other interests, question 8 is on a good place for studying. These responses constitute qualitative data and require qualitative data analysis. The questionnaire does make demands on a student's competency to create meaning and express their understanding using English as an additional language. This may influence the quality of the data collected and this must be taken into account as a limitation when doing the data analysis and when making conclusions.

At first there was confusion about its purpose and some measure of reluctance to complete it as is usually the case with first year students when they have to do a cognitively demanding writing task in class time. However after a clear explanation of the purpose and a little persuasion of the benefits of the activity the students completed the task of responding to the questions. This may have had an influence on the data collected and was borne in mind when analysing the data and in making conclusions on findings. The language used in the questionnaire was purposely kept at a level familiar to students and did not present any major difficulty with understanding, bearing in mind that the students in the study are 'at risk' students who are not English first language speakers. The second time the SLS was administered was in September 2001 in the third term. There was greater reluctance to do the task a second time and this is shown in their responses. This may have had an influence on the data and must be taken into account when doing the data analysis and in the making of any conclusions.

Learning Style Inventory (LSI)

This researcher has a strong interest in Kolb's experiential learning theory in particular the role of the theory in explaining deep learning (see discussion in 2. 4 above). This motivated him to collect data on 'at risk' students learning abilities

and learning styles using Kolb's (1993) instrument the Learning Style Inventory (LSI). Permission was given by the publisher of the LSI, Mcber and Company to use the instrument for research purposes. A Conditional Use Agreement was signed by the researcher and faxed on the 2/4/2001. The instrument was administered twice, once in April 2001 and again in September 2001, as was done with the SLS above. Although it was easy to administer the students needed to be very clear on how to rank their responses to 12 sentences on a scale 1 to 4, 4 is most like you, 3 is second most like, 2 is third most like you and 1 is least like you (see discussion above on closed questions and Lickert-scale). This limitation has to be taken into account when doing the data analysis and when making conclusions.

Pickworth and Schoeman (2000) who have examined Kolb's LSI argue that this is an 'ipsative measure', and 'will always yield purely ipsative scores if respondents rank all alternatives per item' (Pickworth & Schoeman, 2000:47). Ipsative refers to a type of scoring generated by forced choice items however in this instrument the student is also required to rank their choices (see Appendix B). This means that the instrument 'is designed to measure within-individual differences and this creates difficulties when researchers try to make between-subjects analyses' (Pickworth & Schoeman, 2000:47). These limitations must be kept in mind when doing the data analysis and when making any conclusions.

The students responses elicited from the LSI determine the emphasis the 'at risk' student gives to four key learning abilities in Kolb's experiential learning framework described as CE, RO, AC and AE learning abilities (see also the discussion in 2.4 above and see Appendix B) and also their dominant learning style:

1)   Concrete Experience (CE) from 1A, 2C, 3D, 4A, 5A, 6C, 7B, 8D, 9B, 10B, 11A, 12B

2)   Reflective Observation (RO) from 1D, 2A, 3C, 4C, 5B, 6A, 7A, 8C, 9A, 10A, 11B, 12C

3)   Abstract Conceptualising (AC) from 1B, 2B, 3A, 4D, 5C, 6D, 7C, 8B, 9D, 10D, 11C, 12A

4)   Active Experimentation (AE) from 1C, 2D, 3B, 4B, 5D, 6B, 7D, 8A, 9C, 10C, 11D, 12D.

The data that was collected was translated into scores (quantitative data) and the scores are then used to determine learning styles. For example if a student ranked 1) above CE all as 1 (least like you) the score would be 12 and if all 2 (third most like you) the score would be 24. Learning styles are determined by using combination scores for example score on scale AE minus score on scale RO that is a combination score AE-RO (active-reflective), similarly a combination score AC-CE (abstract-concrete) can be determined. A grid provided by the publishers (Kolb, 1993) is used to plot and determine a student's learning style.This procedure will become clearer in the data analysis section 4.3 below.

Approaches to Learning and Studying Inventory (ALSI)

The researcher was motivated to use Pickwoth's (2001) questionnaire Approaches to Learning and Studying Inventory (ALSI) through Pickworth's interest in Kolb's learning theory and in particular through readings of her doctoral thesis on Kolb (Pickworth, 1997) and her investigations into Kolb's LSI instrument (Pickworth & Schoeman, 2000). The ALSI is an instrument developed at the University of Pretoria by Pickworth (2001) and the purpose of the instrument as explained by the author is to 'monitor the prevalence of deep, surface and achieving approaches to learning' (Pickworth, 2001:144). Permission was given by the author Dr. Glynis Pickworth on the 17/9/2001 to use the instrument for research purposes. The data collected using the ALSI will provide information on three orientations to learning - meaning, reproducing and achieving. A high incidence of a meaning orientation and a low incidence of a reproducing orientation 'would indicate that quality learning is taking place' (Pickworth, 2001:141). A student may also adopt a deep-achieving approach or a surface-achieving approach (also see the discussion in 2.4 above).

The instrument was administered only once in September 2001. The purpose and procedures were carefully explained to students. There are 36 questions in the ALSI and the students are required to respond to each item using a five-point Likert-Scale (Pickworth, 2001) see Appendix C. A score of 5 is awarded if the student definitely agrees with the statement, 4 if slightly, 3 if not possible to give a

54

definite answer, 2 if slightly disagree and 1 if definitely disagree. The incidence of deep learning (a meaning orientation MO) is determined by the students responses to questions 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34. The incidence of surface learning (a reproducing orientation RO) by responses to questions 2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35. The achieving orientation (AO) by responses to questions 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36 and negative scoring is used on questions 24, 27, 30, 36. The maximum possible scores on MO and RO would be 5 *12 = 60 and on AO not 60 because of 4 items negatively scored, a possible score is calculated as 36 (8 *5 = 40 - 4 *1 = 36).

3.5.2   STUDENT RECORDS

Data on the students' matriculation, place of residence, schooling, term test results have been collected using departmental records.

3.6   CONCLUSION

The purpose of this chapter has been to explore and demonstrate understanding of the concept of research, and, to explain why an exploratory case study approach in the interpretive paradigm was chosen as the preferred and appropriate methodological stance to take in this study. In the next chapter the researcher equipped with a 'good grasp of the nature of the paradigm' he is working in, that is, equipped with 'interpretivist goggles' reports on the analysis of data.

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

This chapter reports on the analysis of the data collected on high achieving (HA) and low achieving (LA) 'at risk' students. The data collected captures the students' perceptions of learning, learning styles and use of learning strategies in a specific context (a DIT course) and at a particular stage of their development (first year of study) as students. The purpose of the data analysis is to get an understanding of these 'at risk' students' perceptions of learning, learning styles and use of self-regulating learning strategies in that particular context and stage of development. Firstly 'at risk' students' perceptions of learning are investigated and the focus of the analysis is on determining the students' level of deep or surface perception of learning on a continuum scale (deep - surface), and whether these perceptions change in the course of one academic year (April is compared with September). This is done based on data collected using the Student Learning Survey (SLS). Secondly 'at risk' students' incidence of deep and surface learning is measured using the ALSI (Approaches to Learning and Studying Inventory). What follows is an analysis of 'at risk' students' learning styles 1) receiving information (abstractness over concreteness); and 2) processing information (action over reflection) and changes in learning styles, based on data collected using Kolb's LSI (Learning Style Inventory). Finally whether 'at risk' students make use of self-regulating learning strategies, that is their level of metacognitive knowledge and

metacognitive awareness is explored in a) a writing task; and in b) when preparing

for a short tutorial test and c) for an end of term test (as well as possible changes),

based on data collected using the Student Learning Survey (SLS). In the course of

the data analyses the researcher speculates on factors that may be influencing 'at

risk' students' perceptions of learning, learning styles and use of learning

strategies.

4.2 'AT RISK' STUDENTS' PERCEPTIONS OF LEARNING

A Student Learning Survey (SLS) was used to collect data on how 'at risk' students

perceive learning (see Appendix A item 9). In order to identify and analyse these

student's conceptions of learning from their responses elicited in the SLS, a similar

procedure used by Sitoe (2000) in his study was followed:

> ... qualitative categories (codes) of analysis were established. These were
> based on a comparison of the similarities, differences and
> complementarities of the key descriptive words about learning, analysed in
> an iterative and interpretive way, as suggested appropriate for qualitative
> data analyses (Miles & Huberman, 1994:55-63; Sitoe, 2000:9).

The codes of analysis used are based on an assumption in the study that there are

two distinct perceptions of learning, a *surface* perception of learning and a *deep*

perception of learning (see discussion in 2.4 above). A *surface* perception of

learning (or a reproducing orientation) is associated with conceptions of learning as 1) increasing knowledge; 2) memorising and reproducing; and 3) as applying knowledge (Sitoe, 2000). Key descriptive words identified in the 'at risk' students responses for example 'acquire', 'consume', 'collect' and a phrase 'get knowledge' (a notion of accumulating knowledge) would indicate that the student has a surface perception of learning. Surface perceptions of learning are usually associated with consumption or storing metaphors (knowledge is consumed or gathered and collected for example). On the other hand a *deep* perception of learning (or a meaning orientation) would be associated with conceptions of learning as 1) understanding; 2) the notion of meaning and meaning-making; 3) seeing something in a different way or widening one's view; and 4) changing as a person (Sitoe, 2000).

Examples of key words in the 'at risk' students' responses that would indicate a deep perception of learning are 'understand', 'interpret', 'discover' and phrases such as 'gained insight' or 'saw connections and relationships'. These key words determine the student's level of perception on the continuum scale deep - surface. A deep (+) would indicate a strong deep perception of learning and deep (-) indicates a weak deep perception of learning. Similarly a surface (+) is strongly surface (no notion of deep) and surface (-) indicates a surface but beginnings of a deep perception of learning emerging albeit weak.

The data analysis focused on 'at risk' students' responses to two questions in the SLS (see item 9 in Appendix A).

What in your view is learning? Give an example to illustrate, if possible. What do you mean when you say you have learned something?

Each 'at risk' student's response was analysed to determine the perception of learning, deep or surface on a continuum scale deep – surface. The details of how this was done appears in Appendix A.1 (see pages 119 to 124 below). The data in the Appendix is summarised in Table 4.1A below. The changes in these perceptions over time (September 2001 is compared with April 2001) was determined in a similar way (see Appendix A.2 pages 125 to 129) and these changes are summarised in Table 4.1B below.

TABLE 4.1A   SUMMARY ANALYSIS: PERCEPTIONS OF LEARNING USING SLS : APRIL 2001

HA1	DEEP (-)	LA1	SURFACE (-)
HA2	SURFACE (-)	LA2	SURFACE (-)
HA3	DEEP (-)	LA3	SURFACE (+)
HA4	DEEP (-)	LA4	SURFACE (+)
HA5	SURFACE (-)	LA5	SURFACE (+)

TABLE 4.1B   SUMMARY ANALYSIS: CHANGES IN PERCEPTIONS OF LEARNING USING SLS: SEPTEMBER 2001

HA1	Unchanged deep (-)	LA1	Deeper from surface (-)
HA2	Unchanged surface (-)	LA2	Deeper from surface (-)
HA3	Deeper from deep (-)	LA3	Unchanged surface (+)
HA4	Deeper from deep (-)	LA4	Unchanged surface (+)
HA5	Unchanged surface (-)	LA5	Unchanged surface (+)

Table 4.1A provides evidence that most high achieving (HA) 'at risk' students in the study in April 2001 seem to be associated with emerging deep perceptions of learning, that is, they are argued to display a potential to view learning as about making meaning and seeking understanding. The top high achieving students HA1, HA2 and HA3 however seem to be at a more advanced deep stage (deep -). On the other hand the evidence on 'at risk' low achieving (LA) students seems to point to these students as more likely to be associated with a surface perception of learning. The lowest achieving students LA3, LA4 and LA5 (surface +) however show no evidence of a notion of learning as about meaning making and understanding (a deep perception of learning), that is, they seem to perceive learning as only about accumulating knowledge.

What therefore seems to distinguish 'at risk' HA students from LA students is the absence of an emerging deep perception of learning amongst LA students. In addition the responses of the LA students reveal a difficulty with using the English language (see Appendices A.1 and A.2), that is, they have a low competency in BICS using the English language. This would seem to support the idea that low achieving (LA) students exemplified by LA3, LA4, LA5 and classified as surface (+) perceptions of learning may not be able to make the shift into the CALP quadrant (see Cummins's model, Figure 2.1 above). Highly developed CALP is particularly

important in higher education. In Kolb's framework (see Figure 4.2) LA students would probably be located in quadrant 4 (concrete-active learning styles) suggesting limited exposure to abstract-active (quadrant 3) and abstract-reflective (quadrant 2) learning styles.

Factors at work possibly explaining these differences in perceptions of learning amongst 'at risk' students could be linked to past socialisation experiences in the school and in the home (social class). For example at an interview with one of the top high achieving students (HA2) she revealed her mother is a teacher of English and History at a High School. Student Records (Matriculation Certificate) show she matriculated at a former Model C school in a middle class urban area. On the other hand the lowest achieving student in the study (LA5) was schooled at a boarding school in a rural area. The Community Liaison Officer of the higher education institution in which this study was conducted (DIT) described LA5's school as 'not the best'. This does suggest that under-resourced rural high schools, rote learning teaching methods, social class, and English language poor backgrounds (in the classroom and at home) may be factors influencing 'at risk' students' perceptions of learning. However further research would be needed to confirm these influences on perceptions of learning. The data in this study only suggest these factors.

The 'at risk' students in September (2001) in their third term were again asked to answer the same questions. The purpose was to investigate whether any changes

in the students' perceptions of learning took place in the course of the academic year that is since their first term (April, 2001). Individual analyses can be found in Appendix A.2 and this data is summarised in Table 4.1B. The April data has been compared with September data.

The data show that although changes in perceptions of learning (deeper) are taking place in the course of an academic year, these changes are not substantial. This seems to suggest that perceptions of learning are deeply embedded and not easily influenced. The overall picture suggested by this data is that most 'at risk' students in the study probably have surface perceptions of learning. Although deep perceptions do exist (and more so amongst HA students) and are emerging, no student in the study shows evidence of a deep (+) perception of learning. On the continuum scale deep-surface most of the 'at risk' students in the study can be placed more towards the surface end of the scale and with a few moving towards deep (and some more than others).

This would seem to suggest that encouraging students to adopt deep approaches to learning is not an easy task. This is a view shared by other researchers into deep learning who argue that to shift learners from surface to deep learning is difficult and requires setting tasks that encourage deep learning (Entwistle & Ramsden, 1983). Encouraging deep learning may be strongly linked to what teachers do (the outcomes) and the methods they use to assess these outcomes.

This points to further research needed into what is going on in the mainstream classroom in the DIT and to the limitations and problems of using an add-on type Academic Literacy Course in order to develop and facilitate the acquisition of academic literacy and the encouragement of deep learning. If developing deep learning and the acquisition of academic literacy are viewed as outcomes to be assessed in an educational programme this may avoid any contradictions between tasks set in mainstream courses and those designed in add-on type academic literacy courses. Alternatively it may be better to abandon an add-on type academic literacy course and integrate the development of deep learning, metacognition and the acquisition of academic of literacy into the mainstream educational programme.

This could be done by designing tasks (course outcomes) that would encourage students to construct knowledge, create meaning and understanding, solve problems, use metacognition (and thereby promote a deep perception of learning) rather than passively receive knowledge and reproduce it (rote learning) in tests and examinations (and thereby promote a surface perception of learning). Promoting deep learning and metacognition could be some of the outcomes of the course and deep learning and metacognition could be explicitly assessed and in this way aligned with the outcomes.

4.3. AT RISK' STUDENTS' INCIDENCE OF DEEP AND SURFACE LEARNING

The ALSI (Approaches to Learning and Studying Inventory) instrument (see Appendix C on page 166 below) was used to get another angle on 'at risk' students deep and surface perceptions of learning. Tables 4.2A and 4.2B below illustrate the HA and LA students scores on three orientations to learning 1) a meaning orientation (MO) which is associated with a deep perception of learning 2) a reproducing orientation (RO) which is associated with a surface perception of learning and 3) an achieving orientation (AO). An AO is viewed as not mutually exclusive because a learner may adopt a deep-achieving or a surface-achieving approach to learning. A surface-achieving approach however is viewed by Pickworth (2001), the author of the ALSI instrument, as typical of under-graduate approaches to learning.

Pickworth (2001) used the ALSI instrument in her study on 746 University of Pretoria Faculty of Medicine students. She reported the following means on each of the scales (in brackets), MO (43, 81), RO (40, 70) and AO (42, 76). She argued that 'the means for the three scales are very similar and the desired pattern of high MO and low RO scores has not emerged' (Pickworth, 2001:142). A high MO score and a low RO score is argued to be an indication 'that quality learning is taking place' (Pickworth, 2001:141). A high score on the AO scale would indicate the efficient use of study methods and a positive attitude to the course' (Pickworth, 2001:142) - that is the student is motivated to achieve.

64

Getting 'at risk' students to complete this questionnaire and analysing their responses was viewed as possibly providing additional insights into the students' perceptions of, and, approaches to learning. Each 'at risk' students' responses to the questionnaire was analysed and this data is presented in Appendix C.1. This data is summarised in Tables 4.2A and 4.2B below.

TABLE 4.2A ALSI: SEPTEMBER 2001

	MO	RO	AO		MO	RO	AO
HA1	49	49	24	LA1	52	43	24
HA2	50	39	32	LA2	42	34	25
HA3	42	56	11	LA3	54	37	28
HA4	46	49	4	LA4	45	41	32
HA5	47	44	16	LA5	49	42	16

TABLE 4.2B SUMMARY ANALYSIS: QUALITY LEARNING AND ACHIEVING ORIENTATION (AO) USING THE ALSI: SEPTEMBER 2001

	QUALITY LEARNING	DEEP-ACHIEVING	SURFACE-ACHIEVING
HA1	No	No	No
HA2	Possibly	No	No
HA3	No	No	No
HA4	No	No	No
HA5	No	No	No
LA1	No	No	No
LA2	No	No	No
LA3	Possibly	No	No
LA4	No	No	No
LA5	No	No	No

A high incidence of deep learning that is a high score on scale MO (meaning orientation) and a low incidence of surface learning that is a low score on the scale RO (reproducing orientation) indicate quality learning is taking place (Pickworth,

2001). Using this measure, only two 'at risk' students in the study demonstrate quality learning, HA2 and LA3.

The low scores on the scale AO (achieving orientation) suggest that no 'at risk' student adopts a deep-achieving or a surface-achieving approach to learning. Pickworth (2001) argues that most first year higher education students tend to adopt a surface-achieving approach to learning, however all the 'at risk' students in this study have low AO scores.

These low AO scores of 'at risk' students required deeper analysis. The AO mean is 17, 4 for the HA group and 25 for the LA group. It was expected that the HA group would have had better scores on the AO scale than the LA group. These means are also well below the mean 42, 76 on the AO scale in Pickworth's study on 746 medical students (referred to above in section 4.2.5). The designer of the ALSI instrument, Dr. Pickworth, was requested to make a comment on the AO results in this study. In an e-mail (10/8/2001) this was her reply:

> The AO scale is a 'study methods' scale with a few questions addressing general attitude toward the course. The ALSI was developed with our MBChB students in mind. The 'study methods' items are important for MBChB because of the adjustment students must make to a very heavy workload. The few 'attitude' items identify students' whose morale has dropped something that seems to happen to most students at some time during the 6 year course.

The students' responses on the AO scale warranted further investigation in order to find a possible explanation for the low scores on this scale. Because 4 items out of the 12 are negatively scored (24, 27, 30 and 36), that is reverse scoring applies, a maximum high score on this scale is $8 * 5 = 40 + 4 *1 = 44$. The HA and LA group of 'at risk' students (except HA2) have high scores on these reverse scored items (negatively scored) and they range from 7 to15 (see Table 4.5 below) and this explains these students' low scores on the AO scale. The HA group and LA group have almost the same means, HA is 10, 4 and the LA group is exactly 10.

An understanding of the items in the questionnaire 24, 27, 30 and 36 (see Appendix C) can provide an explanation of these scores. These scores are summarised in Table 4.3. below.

TABLE 4.3:   SCORES ON ITEMS REVERSE SCORED

	T	24	27	30	36		T	24	27	30	36
HA1	9	2	1	3	3	LA1	10	2	1	3	4
HA2	4	1	1	1	1	LA2	10	3	1	3	3
HA3	12	5	1	2	4	LA3	9	1	1	2	5
HA4	15	3	4	3	5	LA4	7	3	1	1	2
HA5	12	5	1	4	2	LA5	14	4	1	5	4

In Appendix C Item 24 reads:

'Often I find myself wondering whether the work I am doing here is really worthwhile'.

Most 'at risk' students have high scores on this item, that is, most 'at risk' students responded that 'they definitely agree' and this is a score of 5 and is reverse scored (negatively scored -5) and this lowers the AO scale score.

Item 27 reads:
When I look back, I sometimes wonder why I ever decided to come here'.

Most of the students strongly disagree (score of 1 on item) with this statement and this suggests that all the students in the study do not have a problem with the course and institution. This may be contradicting the answers to item 24 above and whether this is so depends on how the students interpreted the meaning of the question. It would be expected that the answers should be the same that is if a student strongly disagreed with item 24 they would do the same with item 27 (vice versa).

Item 30 reads: *'I certainly want to pass the next set of exams, but it doesn't really matter if I only scrape through'.*

This item can be used to identify whether a student adopts a surface approach to learning that is does the bare minimum needed to pass. Only two students HA2 and LA4 definitely disagree with this statement (a score of 1). This would seem to suggest that HA2 and LA4 have deeper perceptions of learning than what was

classified in Table 4.1A above. On the other hand the other students' responses to item 30 seem to suggest that they may have a more surface perception of learning (on the continuum deep-surface) to what has been classified in Table 4.1A. This would need to be confirmed with more research.

Item 36 reads: *'My habit of putting off work leaves me with far too much to do'.*

Only one student HA2 definitely disagrees with this statement and scores 1 on the scale. The others on the other hand because they to some extent agreed with this statement scored higher, therefore had a higher negative mark and this explains the lower AO scale score.

These low scores on the achieving orientation scale (AO) may be explained by low self-esteem, lack of self-confidence and an absence of self-belief which may apply to all first year of study students and even more so when students are defined institutionally as 'at risk'. The Academic Literacy course may be experienced by these students as a stigma and this could explain the low morale of the students and thus the low scores on the AO scale.

At interviews with each student the researcher discussed their AO scale score and used the opportunity to motivate the student to achieve, to build up self-confidence and self-esteem and to raise morale. This may have had an influence on some of

the students' examination results as these interviews were conducted before the examinations. This however is speculative and would need to be confirmed by further research.

4.4. AT RISK STUDENTS' LEARNING STYLES

The Learning Style Inventory (LSI) instrument (see Appendix B) is based on Kolb's Experiential Learning Theory and was used to collect data on 'at risk' students' learning styles. The responses of the students have been transformed into quantitative data, that is, scores on scales have been derived using a procedure described by the designer of the instrument, Kolb, and the publishers Mcber and Company (Kolb, 1993). The individual 'at risk' analyses appear in Appendices B.1 to B.4 below (see Pages 155 -165). This data is summarised and presented in Tables 4.4. – 4.10. below.

4.4.1. RECEIVING INFORMATION

The first set of scores collected using the LSI instrument is summarised in Table 4.4A.. The purpose of the analysis is to determine whether an 'at risk' student when *receiving information* emphasises or prefers the channel abstractness (the score on the scale AC - abstract conceptualisation) over the channel concreteness (the score on the scale CE - concrete experience).

TABLE 4.4A   LSI: APRIL 2001: RECEIVING INFORMATION ('abstractness' AC over 'concreteness' CE)

	CE	AC	AC-CE		CE	AC	AC-CE
HA1	27	24	-3	LA1	22	37	+15
HA2	20	32	+12	LA2	26	26	0
HA3	25	29	+4	LA3	35	25	-10
HA4	31	30	-1	LA4	27	30	+3
HA5	30	41	+11	LA5	36	26	-10

TABLE 4.4B SUMMARY   ANALYSIS: PREFERRED   CHANNEL   RECEIVING INFORMATION (ABSTRACTNESS OVER CONCRETENESS) APRIL 2001

HA1 — CE	Concrete experience (personal involvement)
HA2 — AC	Abstract conceptualisation (theory)
HA3 — AC	Abstract conceptualisation (theory)
HA4 — CE	Concrete experience (personal involvement)
HA5 — AC	Abstract conceptualisation (theory)
LA1 — AC	Abstract conceptualisation (theory)
LA2 —	No strong preference
LA3 — CE	Concrete experience (personal involvement)
LA4 — AC	Abstract conceptualisation (theory)
LA 5 — CE	Concrete experience (personal involvement)

The 'abstractness over concreteness' preference or emphasis of the student when receiving information is shown in a combination score, that is, in the difference between the AC scale score (abstractness) and the CE scale score (concreteness). That is a score AC minus CE (AC-CE) explains the preference or emphasis of the student. HA2 for example with a score +12 suggests a strong preference for abstractness when receiving information, whereas LA5 with a high -10 suggests a strong preference for concreteness when receiving information. The AC channel can also be interpreted as about a preference to receive information

through 'theory' or 'analytical detachment', and, the CE channel as about a preference for 'personal involvement'.

A conclusion is that there is no evidence of a dominant channel of preference (abstractness over concreteness) amongst HA and LA 'at risk' students when receiving information.

4.4.2 PROCESSING INFORMATION

Tables 4.5A and 4.5B below provides data on 'at risk' students' preference or emphasis for processing information on the dimension or pole AE (active experimentation) which can also be interpreted as a preference for 'action', or the pole RO (reflective observation) that is 'reflection'. The data in the Tables summarises the individual data analyses conducted in Appendix B.2.

The scores that are summarised are derived from a combination score AE minus RO (AE-RO) based on data collected in April (2001). The combination scores (that is the difference between the scale scores AE-RO) are analysed with the purpose of determining the channel 'at risk' students prefer or emphasise when processing information, either through action (the score on scale AE) or reflection (the score on scale RO). Each individual students score is analysed in Appendix B.2.

TABLE 4.5A LSI (April 2001): PROCESSING INFORMATION (preference 'action' over 'reflection')

	AE	RO	AE-RO		AE	RO	AE-RO
HA1	44	25	+19	LA1	34	27	+7
HA2	34	34	0	LA2	43	25	+18
HA3	36	30	+6	LA3	38	22	+16
HA4	28	31	-3	LA4	35	28	+7
HA5	26	23	+3	LA5	30	28	+2

TABLE 4.5B SUMMARY ANALYSIS: PREFERRED CHANNEL PROCESSING

INFORMATION (ACTION OVER REFLECTION) APRIL 2001

HA1	AE active experimentation (action)	LA1	AE active experimentation (action)
HA2	No dominant preference	LA2	AE active experimentation (action)
HA3	AE active experimentation (action)	LA3	AE active experimentation (action)
HA4	RO reflective observation (reflection	LA4	AE active experimentation (action)
HA5	AE active experimentation (action)	LA5	AE active experimentation (action)

The dominant channel used when *processing information* that emerges from the data is a strong preference for 'action' over 'reflection'. The absence of a predisposition to reflect amongst 'at risk' students, that is, the learning ability RO (Reflective Observation) in Kolb's framework , is clearly evident.

4.4.3. CHANGES IN LEARNING STYLES: PREFERENCES RECEIVING INFORMATION (ABSTRACTNESS OVER CONCRETENESS) AND PROCESSING INFORMATION (ACTION OVER REFLECTION) APRIL AND SEPTEMBER 2001 COMPARED.

The data collected and summarised in Tables 4.6A and 4.6B below compare 'at risk' students' preferred channels for receiving information 'abstractness over concreteness' and processing information 'action over reflection' based on responses collected in April (2001) with September (2001). The data summarised

has been sourced from the individual analyses conducted and shown in Appendix B.3. The purpose of the data analysis is to explore any change in preference over time. Table 4.6A show the scores and these are translated into learning styles in Table 4.6B. How learning styles have been derived is explained below.

TABLE 4.6A   LSI (APRIL AND SEPTEMBER 2001): PREFERENCES

	RECEIVING INFORMATION ABSTRACT/CONCRETE		PROCESSING INFORMATION ACTIVE/REFLECTIVE	
	AC-CE (April)	AC-CE (September)	AE-RO (April)	AE-RO (September)
HA1	-3	+7	+19	+15
HA2	+12	+15	0	-7
HA3	+4	+3	+6	+5
HA4	-1	-5	-3	-11
HA5	+11	-7	+3	0
LA1	+15	+11	+7	+17
LA2	0	+8	+19	+16
LA3	-10	-5	+16	+9
LA4	+3	+12	+7	+14
LA5	-10	-5	+2	+19

TABLE 4.6B   SUMMARY   ANALYSIS: CHANGES   IN   PREFERENCES SEPTEMBER 2001

	RECEIVING INFORMATION	PROCESSING INFORMATION
HA1	More abstract	No – still action
HA2	More abstract	More reflection
HA3	Slightly more concrete	Slightly more reflective
HA4	More concrete	Much more reflective
HA5	Strong shift to concrete	Slightly more reflective
LA1	Less abstract	Much more active
LA2	Much more abstract	No – strongly action
LA3	More concrete	Much less active
LA4	Much more abstract	Much more active
LA5	Less concrete/more abstract	Much more active

The combination scores on scales (AC-CE) *receiving information* and the scales (AE-RO) *processing information* are plotted on a grid to determine the learning style. A grid is provided by the publishers Mcber and Company (Kolb, 1993). For example the HA1 student's learning style can be determined by using his combination score AC-CE (24-27 = -3) and his combination score AE-RO (44-25= +19). The combination score -3 was plotted on the AC/CE pole and the combination score +19 was plotted on the AE/RO pole on the grid (see Figure 4.1 below). A position on the grid determines the learning style. In this case the combination scores result in an accommodating learning style (concrete-active) that is quadrant 4 in Figure 4.1. Quadrant 1 displays a diverging learning style (concrete-reflective), Quadrant 2 an assimilating learning style (abstract-reflective), Quadrant 3 is accommodating (abstract-active). Each 'at risk' student's learning styles was plotted and determined in this way (see Appendix B.4). These learning styles are summarised below in Table 4.7A and the changes in learning styles are summarised below in Table 4.7B.

TABLE 4.7A LEARNING STYLES: APRIL& SEPTEMBER 2001

	APRIL	SEPTEMBER
HA1	Accommodating (concrete-active)	Converging ((abstract-active)
HA2	Assimilating (abstract-reflective)	Assimilating (abstract-reflective)
HA3	Converging (abstract-active)	Diverging (concrete-reflective)
HA4	Diverging (concrete-reflective)	Diverging (concrete-reflective)
HA5	Assimilating (abstract-reflective)	Diverging (concrete-reflective)
LA1	Converging ((abstract-active)	Converging ((abstract-active)
LA2	Accommodating (concrete-active)	Converging ((abstract-active)
LA3	Accommodating (concrete-active)	Accommodating (concrete-active)
LA4	Accommodating (concrete-active)	Converging ((abstract-active)
LA5	Diverging (concrete-reflective)	Accommodating (concrete-active)

TABLE 4.7B SUMMARY DATA ANALYSIS: CHANGES IN LEARNING STYLES SEPTEMBER 2001

HA1	from concrete-active to abstract-active
HA2	Although unchanged more reflective: abstract-reflective
HA3	from abstract-active to concrete-reflective
HA4	although unchanged more concrete and more reflective: concrete-reflective
HA5	Abstract-reflective to concrete-reflective
LA1	Although unchanged more active and less abstract: abstract-active
LA2	from concrete-active to abstract-active
LA3	Although unchanged more concrete and reflective: concrete-active
LA4	from concrete-active to abstract active
LA5	from concrete-reflective to concrete-active

```
                    CE
                    ┊
            4       ┊       1
                    ┊
  AE _____┊_____ RO
                    ┊
            3       ┊       2
                    ┊
                    AC
```
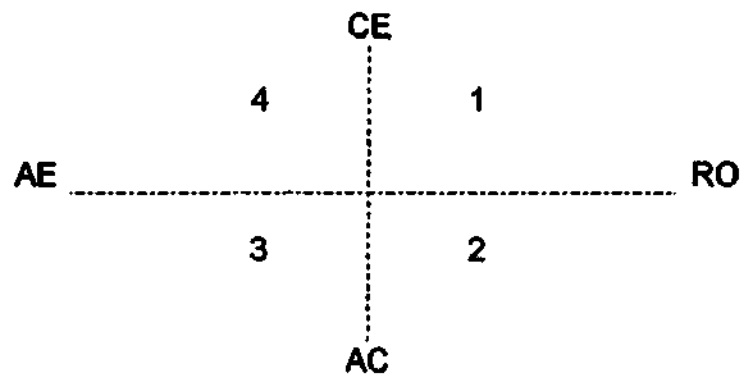
FIGURE 4.1: SHIFTS IN 'AT RISK' STUDENTS' LEARNING STYLES
(Kolb, 1993)

There is evidence that 'at risk' students do change preferred channels when receiving information. Using Figure 4.1 above on the pole CE-AC some students display a preference to receive information in the abstract (AC) others more concretely (CE). However when *processing information*, the pole AE-RO there is a strong preference to be active rather than reflective, that is there is evidence of an absence to reflect when processing information.

The nature of the educational programme these students are participating in (Retail and Sales Management) and the teaching styles (and nature of tasks set) of the lecturers may be influencing the students learning styles (further research is needed to confirm this). These type of courses tend to encourage students to apply theory and knowledge (AC) to solve problems (AE), that is, to shift students into quadrant 3 (abstract-active learning style) in Figure 4.1 above. This entails a shift to a converging learning style which is a similar learning style required of Engineering students. The HA1 student the top student in the HA group has

become very good at doing this and this may explain his successful academic results in this educational programme.

In the LA group three of the five students (LA1, LA2 and LA4) make a shift to quadrant 3 (abstract-active). This may confirm what the literature on learning suggests, that is, that learners' approaches to learning and learning styles are influenced by the kind and quality of tasks set by the lecturer and by the nature of the discipline (Retail Management and Sales Management). In discussions with lecturers in these courses they made clear that a key learning outcome was that students must apply knowledge and use examples. Further research however is needed to confirm these arguments.

There is evidence that Reflective Observation (RO) learning abilities (reflection) have not been strongly developed amongst this group of students. HA2 however may be an example of a student who uses these abilities when receiving and processing information. Her learning style is located in quadrant 2 (an assimilating learning style). She has become more reflective over time. Her learning style matches that of the top student (not an 'at risk' student) on the course Retail Business Management (not to be confused with HA1 the top 'at risk' student). Data was collected on this top student using the same questionnaires LSI and SLS (in April 2001).

This may suggest that success in the academy is linked the adoption of an abstract-reflective learning style, Assimilating (quadrant 2 in Figure 4.1). The appropriate shift in learning ability required of students in higher education may be into quadrant 2 rather than quadrant 3 (see Figure 4.1 above). As argued above this shift is also linked to a language ability shift form BICS to CALP in Cummins's model.(Figure 2.1).

4.4.4. 'AT RISK' STUDENTS' LEARNING STRATEGIES

The SLS (Student Learning Survey) see Appendix A, was used to collect data on 'at risk' students' learning strategies (see items in Appendix A). The analysis of the data focused on 1) the self-regulating learning strategies (that is metacognition) that 'at risk' students used to plan and write an academic essay (item 2.1 in Appendix A); and 2) the metacognitive strategies 'at risk' students used to: a) prepare for a short tutorial test (item1.1); and b) to prepare for an end of term test (item 5.1). The purpose of the analysis is to make a judgmernt on 'at risk' students' level of metacognitive knowledge and metacognitive awareness when doing selected tasks.

4.4.4.1 USE OF SELF-REGULATING LEARNING STRATEGIES. METACOGNITIVE KNOWLEDGE: IN A WRITING TASK.

The students were asked to respond to this question in the SLS (see item 2 and 2.1, Appendix A):

Your lecturer informs you that you must write a short essay on a topic selected from your course Consumer Behaviour 1. This essay will be marked and these marks will contribute to your course mark. List the steps (actions) you would use to help you plan and write your essay?

The SLS was administered twice once in April (2001) and again in September (2001). Each student's response is firstly reported, then the data is analysed and presented in Appendix A.3.

The instruction in academic writing (a section of the AL course in 2001) focused on:

- planning (audience awareness and purpose);

- organisation (paragraphing and coherent structuring);

- structure (introduction; main body and conclusion);

- use of appropriate linking devices;

- referencing;

- drafting and editing essays and assignments;

- achieving accuracy in spelling and punctuation; and

- the development of a logical argument that leads on to relevant conclusions.

Examples of key descriptive words in the students' responses that would indicate level of metacognitive knowledge in a writing task are:, 'planning', 'structure', 'introduction - main body - conclusion', 'referencing', 'draft', 'revise', 'edit', 'coherence', 'logical argument'.

Table 4.8 below is a summary analysis and a judgment on the 'at risk' students' level of metacognitive knowledge in a writing task in April 2001 and a judgment on any changes to that level of metacognitive knowledge in September 2001. All the students show evidence of not being in control of the academic writing task (underdeveloped CALP). However what seems to distinguish 'at risk' HA students from LA students seems to be related to competency in the English language. A number of LA students seem to struggle to express themselves using the English language (low level of BICS). On the other hand HA students seem to be more competent users of the English language. This does suggest again that 'at risk' students have not made the required shift into the CALP quadrant (Cummins's model Figure 4.2 below).

TABLE 4.8   SUMMARY ANALYSIS: USE OF SELF-REGULATING LEARNING
STRATEGIES.   METACOGNITIVE KNOWLEDGE: IN A WRITING
TASK

LEVEL OF METACOGNITIVE KNOWLEDGE:		CHANGES
	APRIL 2001	SEPTEMBER 2001
HA1	Fair	Uses draft
HA2	Weak	Asks lecturer
HA3	Weak	None
HA4	Very weak	None
HA5	Fair	None
LA1	Weak	'Do it in rugh'
LA2	Fairly good	Draft
LA3	Weak	None
LA4	Weak	None
LA5	Weak	None

Cognitively Undemanding

1

Context Embedded _____ Context Reduced

2

Cognitively Demanding
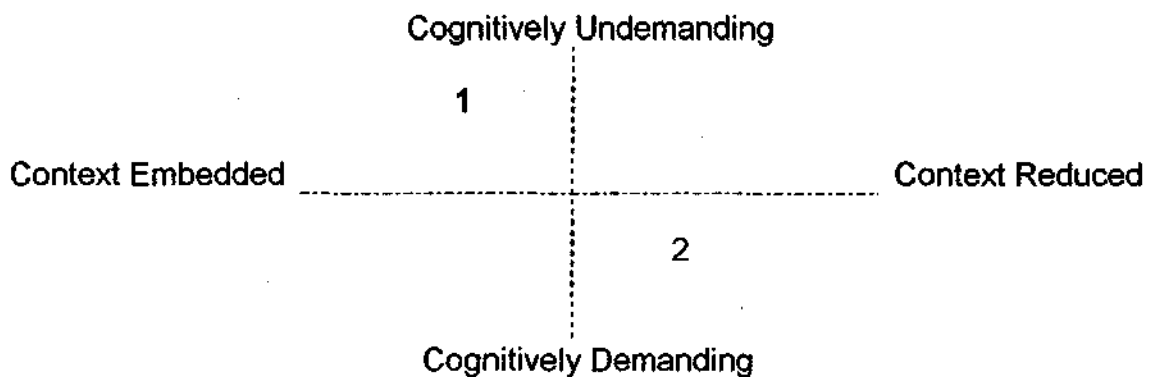
FIGURE 4.2: CUMMINS'S MODEL

The Academic Literacy course had the objective of facilitating (see also section 2.3 above) the shift from quadrant 1 (BICS) to quadrant 2 (CALP). The data in Table 4.8 above shows this shift has not been achieved in a writing task. It can be argued that these students need more opportunities to practice coherently communicating

their understanding in contexts typical in higher education (quadrant 2). The academic essay or writing up a Business Plan are examples of cognitively - demanding and context -reduced tasks, that is CALP. As was argued above 'at risk' students are learning using English as an additional language and may have the added difficulty of coping both with CALP related tasks and proficiency in the English language (BICS).

4.4.4.2 USE OF SELF-REGULATING LEARNING STRATEGIES. META-COGNITIVE KNOWLEDGE: PREPARING FOR A SHORT TUTORIAL TEST.

The students were asked to respond to this question in the SLS (see item 1 and 1.1, Appendix A):

Your lecturer informs you that you are going to have a short tutorial type test on a section of your course Consumer Behaviour 1, for example on one of the chapters in your text book. List the steps (actions) you would use to help you remember the section for this test?

The SLS was administered once in April (2001) and again in September (2001). Each student's response is recorded and then analysed following similar procedures (see Appendix A.4) The purpose of the analysis is to examine the 'at risk' student's level of metacognitive knowledge when preparing for a short

tutorial test and to make a judgement on whether the strategies are likely to help the student to learn and remember.

Table 4.9 below is a summary analysis of 'at risk' students' use of self-regulating learning strategies when preparing for a short tutorial test. The Table answers the question whether in the researcher's judgment 1) the strategies used by the student are likely to encourage remembering (Yes or No) and 2) significant changes were made in strategies in September 2001. Most of the students show evidence of control, however there is no evidence of significant changes in metacognition.

TABLE 4.9:   SUMMARY ANALYSIS: USE OF SELF-REGULATING LEARNING STRATEGIES. METACOGNITIVE KNOWLEDGE: PREPARING FOR A SHORT TUTORIAL TEST

	ENCOURAGES REMEMBERING	CHANGES IN SEPTEMBER 2001
HA1	Yes	None
HA2	No	None
HA3	Yes	Uses study group
HA4	Yes	None
HA5	No	None
LA1	No	Summarise, re-write again
LA2	Yes	None
LA3	Yes	None
LA4	Yes	None
LA5	Yes	None

4.4.4.3 USE OF SELF-REGULATING LEARNING STRATEGIES. METACOGNITIVE KNOWLEDGE: PREPARING FOR AN END OF TERM TEST.

The students were asked to respond to this question in the SLS (see item 5 and 5.1, Appendix A):

Your lecturer will have end of term tests planned in your course Consumer Behaviour 1. This work will contribute to your Course Mark. List the steps (actions) you will use for preparing for these tests?

The SLS was administered twice, once in April (2001) and again in September (2001). Each student's response is recorded then qualitatively analysed (see Appendix A.5) and this data is summarised in Table 4.10. The purpose of the analysis is to make a judgement on whether the 'at risk' student uses metacognitive strategies that are likely to enhance learning for an end of term test.

Table 4.10 below is a summary analysis of 'at risk' students' use of self-regulating learning strategies when preparing for an end of term test. The Table answers the question whether in the researcher's judgment 1) the strategies used enhance deep learning and promote understanding and 2) there are significant changes made in strategies in September 2001 and what they are. The data seem to suggest that most 'at risk' students are in control of tests, however there is no evidence of significant changes in metacognition.

TABLE 4.10: SUMMARY ANALYSIS: USE OF SELF-REGULATING STRATEGIES. METACOGNITIVE KNOWLEDGE: PREPARING FOR AN END OF TERM TEST

	ENHANCES LEARNING (APRIL 2001)	CHANGES IN SEPTEMBER 2001
HA1	Yes	Yes – 'reduce fun actions and study'
HA2	No	Yes – 'start learning early 'Use past test papers'.
HA3	Yes	Yes – 'go to the library and study', 'ask questions, 'use lecture notes'
HA4	No	Yes – 'collecting information as early as I can'.
HA5	No	Yes – 'stop seeing friend'.
LA1	Yes	None
LA2	No	None
LA3	Yes	None
LA4	Yes	None
LA5	No	Yes – 'study the notes, the book and the library books'

4.5 CONCLUSION

The summary data analyses (in Tables 4.1A) seem to suggest an absence of a deep (+) perception of learning amongst all the 'at risk' students in this case study. Some students though have been classified as having deep (-) perceptions of learning. What distinguishes HA and LA students' perceptions of learning is that LA students are associated with a surface perception of learning. The summary data analysis (in Table 4.1B) seem to suggest that the students in the study do not readily change their perceptions of learning over time, that is, in the space of one academic year (when September data is compared with April). This may suggest that perceptions of learning are deeply embedded and not easily amenable to change.

The summary data analyses (in Tables 4.2A and 4.2B) show that 'at risk' students in the study do not display quality learning (a high meaning orientation and a low reproducing orientation) and none of these students adopt a deep-achieving or a surface-achieving approach to learning, that is, all the 'at risk students in the study have a low achieving orientation.

When examining learning styles (using Kolb's instrument), the summary data analysis (on April data) shows that when receiving information (Tables 4.4A and 4.4B) there is no dominant preferred channel (abstract or concrete) used. The summary data (Table 4.5A and 4.5B) shows that action is the preferred channel used when processing information, rather than reflection. Over time though the students seem to make changes in channels used when processing information (Tables 4.6A and 4.6B), some have become more reflective and others less active (and vice versa). What distinguishes HA students' learning styles from LA students is the LA students' strong preference for action when processing information and the absence of reflection in LA students' learning styles .

The summary data analysis done on level of metacognitive knowledge in a writing task, that is 'at risk' students use of self-regulating learning strategies (Table 4.8), suggests that the 'at risk' students in the study are not in strong control of the writing process. Furthermore the control and level of metacognitive knowledge does not seem to change and improve over time (Table 4.8). However 'at risk'

students seem to be in better control when preparing for a short tutorial test and preparing for an end of term test (Tables 4.9 and 4.10), but they do not seem to improve or make changes to their levels of metacognitive knowledge or use of self-regulating learning strategies over time (comparing April and September data in Tables 4.8; 4.9 and 4.10).

CHAPTER 5

RESEARCH FINDINGS, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter focuses on findings, limitations, recommendations and possibilities for further research.

5.2 FINDINGS

The study provides evidence that high achieving (HA) first year of study 'at risk' students when compared with low achieving (LA) students seem to be associated more with 1) emerging deep perceptions of learning 2) reflective learning styles when processing information and 3) an ability in using English as an additional language of learning to communicate knowledge, meaning and understanding.

However there is evidence that what seems common to both HA and LA 'at risk' students: 1) quality learning (a high meaning orientation and a low reproducing orientation) is not taking place 2) achieving orientation is low 3) being more in self-control (metacognition) when preparing for tests but less so in a writing task and 4) a resistance to (and some more so than others) to making changes and thereby improving perceptions of learning, learning styles and levels of metacognitive knowledge (use of self-regulating learning strategies) in a writing task and when preparing for tests.

There is also a suggestion in the study that key factors possibly influencing 'at risk' students' perceptions of learning are associated with socialisation (schooling and social class) and with competency and opportunities to use the English language (competency in BICS and CALP). High achieving 'at risk' students are more likely to have experienced better quality of schooling (wherever these schools may be). However if these schools are formerly Model C schools in urban areas, opportunities to develop both BICS and CALP using the English language critical for success in higher education, is more likely. This finding though arising out of the study is to some extent speculative and further research is needed to confirm these relationships.

5.3 LIMITATIONS IN THE STUDY

Although the findings above are viewed by the researcher as a fairly accurate description of a small sample of Retail Business Management 'at risk' students' perceptions of learning, learning styles and use of self-regulating learning strategies (level of metacognitive knowledge), a major limitation of the study has been a reliance on responses in questionnaires to collect and analyse data. With the benefit of hindsight and with more research experience other data collection instruments should have been used. Better use could have been made of interviews and or focus group discussions. This would have enabled the collection and analysis of rich, thick data.

The use of diverse data collection techniques would also have enabled triangulation which would have resulted in a more rigorous study. The researcher could have cross-checked his interpretations of the 'at risk' students' responses in the questionnaires through making greater use of individual interviews, focus group interviews and participant observations in the classroom. Using these methods would have 1) increased the validity of the study 2) allowed for less tentative subjective interpretations and 3) improved the substantiation of the recommendations.

'At risk' students also may have misinterpreted what they read in the questionnaire. May be if a pilot study had been conducted the questions could have been reworded. Furthermore these students may have been more comfortable in oral situations and more willing to express their views and understandings through talking (in interviews) rather than in writing (in questionnaires).

The researcher could have made better use of the opportunities: 1) to observe and record closely 'at risk' students learning behaviour given that he was the lecturer in the Academic Literacy course 2) to examine deeply and critically the outcomes of the Academic Literacy course and to consider its role in facilitating deep learning and metacognition 3) to examine deeply and critically the role of 'mainstream'

courses and lecturers in shaping learning styles, metacognition and the acquisition of academic literacy and 4) to examine deeply and critically samples of student writing taken from the different courses in the 'at risk' students' mainstream educational programme. Had these opportunities been used the researcher would have not relied mainly on the use of three questionnaires to collect data. Data other than use of questionnaire responses could have been collected. The narrow empirical base of the study has resulted in severe limitations.

Further limitations in the study have to do with 1) the difficulty in making inferences based on large amounts of quantitative data without evidence from other kinds of qualitative data (for example interviews) 2) the small sample which may limit the the ability to make useful generalisations 3) the responses to the open ended questions may not have been sufficient to generate categories and insights 4) in closed responses the students may feel they must give answers to please their lecturer / researcher.

5.4 RECOMMENDATIONS

The study seems to suggest that it is difficult to shift and develop first year of study disadvantaged and bilingual students' perceptions of learning, learning styles, metacognition and academic literacy in their first year of study and in an add-on type academic literacy. These seem to be deeply embedded through past socialization experiences, particularly in schools and in the homes. Also the

students may not be able to transfer the skills acquired in the add-on academic literacy course into their mainstream courses.

A possible recommendation of the study is to abandon the use of a separate Academic Literacy course in order to develop 'at risk' first year of study DIT higher education students and rather to integrate the development of deep learning, metacognition and academic literacy (using the English language) into the mainstream course. In this approach it is then the responsibility of the mainstream lecturer to embed into the course design, that is, into the teaching and into assessment deep learning development, academic literacy development (using the English language) and metacognitive development. The latter three areas for development could be viewed as critical cross field outcomes, that is, outcomes critical to all first year courses in a first year of study educational programme. This approach would ensure that all first year students are given numerous opportunities for sustained academic development and also would enhance the transfer of skills. However further research using a larger sample of 'at risk' students and or mainstream students would be necessary.

This recommendation though has clear implications for both curriculum development and staff development in higher education. It suggests that the higher education curriculum should include developmental outcomes (encourage deep learning, metacognition and develop academic literacy). These outcomes need to

be embedded in the course design, reinforced in the teaching and in the use of continuous methods of assessment. These curriculum development proposals though would have staff development implications. Ways of teaching and what to teach are also difficult to change. Lecturer's teaching styles have also been embedded by past socialization experiences.

The study does also provide evidence that some first year of study students may be so unprepared for higher education that they should not be admitted into the DIT. Although being able to identify who is unprepared and who is under-prepared for higher education is not an easy task, the DIT needs to examine more carefully which students can enter the institution. Given that higher education funding from the central government will in future be dependent on the throughput rate (completing successfully an educational programme in reasonable time) the identification of an 'at risk' student will become much more important. This will have implications though for the democratization of higher education (the policy of massification of higher education) and the issue of access to higher education.

Access to higher education may once again only become possible for those who come from middle class homes in urban areas and experience former model C type schooling and better opportunities for learning using the English language. Access to and success in higher education in general and in the DIT in particular, is going to be difficult for those who speak an African language, who learn in

schools where an African language is dominant (weak exposure to opportunities to develop both BICS and CALP using the language of English), and finally who come from disadvantaged communities in townships, rural homes and who go to under-resourced township and rural schools.

5.5. POSSIBILITIES FOR FURTHER RESEARCH

The study may encourage other researchers to explore further how Kolb's theory of learning can be used in higher education to shift learning styles and identify weaknesses and strengths in learning styles. Abstract–active and abstract–reflective learning abilities are critical in higher education. This study revealed that most of the students showed a weak preference to use abstract-reflective learning abilities. Ways and means of encouraging reflection needs to be investigated. Use of continuous approaches to assessment and portfolios to encourage reflection could be an area for further inquiry.

Cummins' model provides useful insights for those interested in investigating bilingual education and developing cognitive academic language proficiency (CALP). The acquisition of CALP is critical in higher education. An important area for further study could be into using the mother tongue (for example isiZulu) to develop cognitive academic language proficiency (CALP) in high schools, that is,

the switch to using the English language as the language of learning is delayed far longer, may be only introduced in higher education. This area may interest those who have an interest in promoting an African vision for higher education and African scholarship in higher education.

The new funding formula used in higher education will in future be based on the throughput rate (students completing educational programmes in the required time). This may require higher education institutions and in particular the DIT to identify students who may be 'at risk'. This study may provide some insights into possible problem areas and encourage further research on 'at risk' students.

BIBLIOGRAPHY

Academic Literacy. 2001. *Study Guide ENAP1001.* Technikon Natal.

Ballard, B. & Clanchy, J. 1988. Literacy in the University: An Anthropological Approach. In Taylor, G., Ballard, B., Beasley, V., Clanchy, J., & Nightingale, P. *Literacy by Degrees.* Open University Press. Milton Keynes.

Baynham, M. 2001. *Texts and Practices: researching academic literacies in higher education.* Plenary given at the 'Integrating Content and Language: providing access to knowledge through language' Conference in July. Peninsula Technikon.

Beylefeld, A. 1998. Action research as a tool for 'retooling' lecturers to become learning facilitators: reflections on a 'journey' from a technical to an emancipatory interest. *SAJHE.* 12(3):167-172.

Biggs, J.B. 1989. Approaches to the Enhancement of Tertiary Teaching. *Higher Education Research and Development.* 8(1):7-25.

Biggs, J.B. 1987. Student Approaches to Learning and Studying. *Research Monograph.* Melbourne, Australian Council for Educational Research.

Blunt, S. and Goodier, C. 2002. The English Placement Assessment at the PE Technikon. *Academic Development: Changes and Challenges.* Academic Development Centre, Rhodes University. 101-109.

Bock, H. 1988. Academic Literacy: Starting Point or Goal? In Taylor, G., Ballard, B., Beasley, V., Clanchy, J., & Nightingale, P., *Literacy by Degrees.* Open University Press, Milton Keynes.

Boughey, C. 2001. *Workshop Integrating Academic Literacy into Economics.* Technikon Natal. Memo, Assistant Vice Principal, 22 January.

Cantrell, D. 1993. Alternative paradigms in environmental research: The interpretive perspective. In Mrazek, R. *Alternative paradigms in environmental research*. Troy, Ohio: NAEE. 81-102.

Clarence-Fincham, J. 2000. Cummin's contribution to the understanding of language learning and achievement at school. *Language in Learning and Teaching (LILT). Learning Guide.* University of Natal Press, Pietermaritzburg.

Coats, M. 2002. Compliance or creativity? Using learning outcomes to enhance student autonomy. *Academic Development: Changes and Challenges.* Academic Development Centre, Rhodes University.

Cornella, K. 2001. *LSI Research Contracts 2/4/2001.* Hay/Mcber, Boston.

Cummins, J. 1984. *Bilingualism and Special Education: Issues in Assessment and Pedagogy.* Clevedon, England, Multilingual Matters.

Davis, K.A. 1995. Qualitative Theory and Methods in Applied Linguistics Research. *TESOL QUARTERLY.* 29(3):427-453.

DuToit, F. 1997. The Development of Academic Literacy in the Mainstream Classroom: A Functional Model for Teacher Education. *Journal for Language Teaching SAALT.* 31:154-171.

Entwistle, N. & Ramsden, P. 1983. *Understanding Student Learning.* London, Croom Helm.

Evans, D.L. 1995. *A Study of the Impact on the Teaching Skills Across the Primary School Curriculum upon the subsequent Classroom Practice of Participants.* Unpublished Master of Education Thesis. University of Natal, Pietermaritzburg.

Examination Statistics Technikon Natal. 2000. *Year End 1999 Main Exam Session.* Technikon Natal, Durban.

Ferreira, M. 1994. A Sociological Analysis of Medical Encounters of Aged Persons at an Outpatient Centre: A Qualitative Approach. *Basic Concepts in the Methodology of the Social Sciences. Appendix 1.* In Mouton, J. and Marais, H.C. HSRC Publishers. Pretoria.

Frame, J. 1996. *An Exploration of the Concept 'Core Curriculum' in the Context of Curriculum Innovation at the University of Natal.* Unpublished Master of Education (Curriculum Studies) Thesis. University of Natal. Durban.

Gee, J. 1990. *Social linguistics and literacies: Ideologies in discourses.* New York, Falmer Press.

Gibbs, G. 1992. *Improving the quality of student learning.* Bristol, Technical and Educational Services Ltd.

Gillham, B. 2000. *Case Study Research Methods.* Continuum, London and New York.

Gipps, C. 1994. *Beyond Testing: towards a theory of educational assessment.* London, Falmer.

Granville, S. 2002. Initiates into the academy: students becoming researchers. *Academic Development: Changes and Challenges.* Academic Development Centre, Rhodes University.

Greene, J. 1994. Qualitative Program Evaluation Practice and Promise. In Denzin, N.K. & Lincoln, Y.S. (Eds.). *Handbook of Qualitative Research.* Sage, Thousand Oaks.

Greene, J.C. 1990. Knowledge accumulation. In Guba, E.G. (Ed.). *The Paradigm dialogue.* London, Sage.

Guba, E.G. & Lincoln, Y.S. 1989. *Fourth Generation Evaluation.* Newbury Park. CA, Sage.

99

Hay, D. & Buchner, J. 1998. *Emancipatory action research: an empowering strategy in the implementation of outcomes based education in South African schools.* IACESA Conference paper, Kimberley.

Hendricks, M. & Quinn, L. 2000. Teaching Referencing as an Introduction to Epistemological Empowerment. *Teaching in Higher Education.* 5(4):447-457.

Jacobs, C. & Jacobs, K. 2001. *An integrated approach to curriculum at foundation level.* ECER Publications Format NCL in HE Symposium.

Jarvinen, A. & Kohonen, V. 1995. Promoting Professional Development in Higher Education through Portfolio Assessment. *Assessment & Evaluation in Higher Education.* 29(1):25 -36.

Kaniel, S. 1999. *The influence of metacognitive strategies for understanding rational clozes on positive transfer in reading comprehension instruction.* Paper presented International Association for Cognitive Education (IACESA), Kimberley Conference, 'Teaching Thinking - The Essential Prerequisite for Success with Curriculum 2005 and Life long Learning'. *Cognitive Education in Southern Africa.* 6(1) 3-9.

Knott, A. 2002. Women-in-research: mentoring and literacy practices from the margins of an historically black campus. *Academic Development: Changes and Challenges.* Rhodes University. 41-58.

Kolb, D.A. 1993. *Learning Style Inventory.* Boston. Mcber & Company.

Kolb, D.A. 1984. *Experiential Learning: Experience as the Source of Learning and Development.* Englewood Cliffs, N. J., Prentice-Hall.

Kolb, D.A. 1976. *Learning Style Inventory. Technical Manual.* Boston. Mcber & Company.

Lemmer, E.M. 1992. Qualitative Research Methods in Education. *SA Journal Education.* 12 (3):292-296.

Luckett, K. 1995. *The Reflective Practitioner: A Guiding Concept for Staff Development?* SAAAD Conference Proceedings. Technikon Free State.

Luckett, K. 1999. Negotiating a Way into the National Qualifications Framework: A Perspective from a South African University. *Discourse Journal of the Rhodes University Academic Development Centre.* 1 -10.

Mabry, L. 1999. *Portfolios Plus: A Critical Guide to Alternative Assessment.* Cornwin Press Inc. A Sage Publications Company. Thousand Oaks. California.

Makgoba, M. 2003. An African vision for mergers. Beyond Matric. *Mail & Guardian.* May 2 to 8. 20(18):1-2.

Marton, F., Hounsell, D. & Entwistle, N. 1984. (Eds.). *The Experience of Learning.* Edinburgh, Scottish Universities Press.

Marton, F. & Saljo, R. 1984. Approaches to learning. In Marton, F., Hounsell, D. and Entwistle, N. (Eds.) *The Experience of Learning.* Edinburgh, Scottish Universities Press.

McKenna, S., Mankowski, P., Mhlongo, B., Mthembu, B., Olivier, L., Baruthram, S. 2002. *Progress Report on Redress Project.* Department of Academic Literacy, Durban Institute of Technology.

McKenna, S. 2002a. *Some points regarding the PTEEP and TELP PTEEP tests.* Unpublished memorandum to Department of Academic Literacy, Durban Institute of Technology.

McKenna, S. 2002b. *Changing Discourses of Academic Literacy at Technikon Natal from 1991 to 2002.* Unpublished Draft Paper presented to the Department of Academic Literacy Durban Institute of Technology.

McMillan, W. 2003. "I feel that I get by with what I do" - Using narrative as a conceptual tool for understanding social identity. *Journal Of Education*. Number 31:111-135. Kenton Special Edition, School of Education, University Of Natal, Pietermaritzburg.

Mehl, M. 2002. Academic Development and Change: Still Potential Bedfellows. *Academic Development: Changes and Challenges*. Academic Development Centre, Rhodes University.

Miles, M. & Huberman, M. 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. Sage, Newbury Park Ca.

Miller, R., Bradbury, J. & Acutt, K. 2001. Academic performance of English first and second-language students: a retrospective appraisal. *SAJHE*. 15(1): 146-153.

Mohr, P. & Fourie, L. 2000. *Economics for South African students. Second Edition*. Van Schaik Publishers, Pretoria.

Mouton, J. & Marais, H.C. 1994. *Basic Concepts in the methodology of the social sciences*. HSRC Publishers, Pretoria.

Mpofu, E. & Oakland, T. 2001. Predicting school achievement in Zimbabawe multiracial schools using Bigg's Learning Process Questionnaire. *South African Journal of Psychology*. 31(3):20 -28.

Muthukrishna, N. & Borkowski, J. 1996. Constructivism and the Motivated Transfer of Skills in Motivation. In Carr, M. (Ed.) *Motivation in Mathematics*. Hampton Press, New Jersey.

National Plan, 2001. *Press Release UNISA'S Response to the National Plan for Higher Education- Executive Summary*. UNISA Learning Centre, Durban.

Newman, J.M. 1999. *Validity and Action Research: An Online Conversation* in I. Hughes Action Research Electronic Reader online at http://www.behs.cchs.usyd.edu.au/arow/reader/ . Accessed 01/31/2000.

Nightingale, P. 1988. Language and Learning: A Bibliographical Essay in *Literacy by Degrees*. Taylor, G., Ballard, B., Beasley, V., Clanchy, J., & Nightingale, P. Open University Press. Milton Keynes.

Olivier, L. 2000. *Using metacognitive skills to improve learning in higher education.* Academic Development: Changes and Challenges. Conference Paper, Rhodes University.

Pickworth, G.E. 2001. Developing an instrument to identify MBChB students' approaches to learning. *South African Journal of Higher Education (SAJHE).* 15(2):140-147.

Pickworth, G.E. & Schoeman, W.J. 2000. The psychometric properties of the Learning Style Questionnaire: Two normative measures of learning styles. *South African Journal Psychology.* 30(2):44-52.

Pickworth, G.E. 1997. *An Integration of the Theories of JL Holland and DA Kolb: A Theoretical and Empirical Study of Vocational Personality and learning Style Types.* Unpublished Doctoral Thesis. University of Pretoria.

Purdie, N., Hattie, J. & Douglas, G. 1996. Student Conception of learning and their Use of Self-Regulated Learning Strategies: A Cross-cultural Comparison. *Journal Of Educational Psychology.* 87-100. Vol.88, No.1.

Quinn, L. 2002. *Writing-Respondent Workshop.* Durban Institute Of Technology.

Ramsden, P. 1998. Managing the Effective University. *Higher Education Research & Development.* 17(3):347-357.

Saleme, M. & Valente, M. 1990. Learning to Think: Metacognition in Written Composition. *International Journal of Cognitive education & Mediated Learning.* 1(2):161 -170.

Scott, I. 2001. *Public Funding for Academic Development: Analysis and Proposals.* University of Cape Town. Individual Submission to the Ministry of Education in response to the 2001 Discussion Document, *Funding of Public Higher Education: A New Framework.*

Sitoe, A. 2000. *Conceptions of learning amongst first year students: A survey amongst science and technology students at the Eduardo Mondlane University, Mozambique.* Academic Development: Changes and Challenges. Conference Paper. Rhodes University.

Skinner, J. 1999. *Critical Outcomes: Political Paradoxes* in *Changing Curriculum. Studies on Outcomes-based Education in South Africa.* Jansen, J. and Christie, P. Editors. Juta. Cape Town.

Smith, C.K.O. 1994. *Case Study. Study Notes for research methods Course.* Rhodes University.

Street, B. 2001. Academic Literacies: A critical perspective. *Ways of Knowing Journal.* 1(1):19-23.

Svinicki, M.D. & Dixon, N.M. 1987. Kolb Modified for Classroom Activities. *College Teaching.* 35(4):141 -146.

Taylor, G., Ballard, B., Beasley, V., Clanchy, J., & Nightingale, P. 1988. *Literacy by Degrees.* Open University Press. Milton Keynes.

Taylor, G. 1988. The Literacy of Knowing: Content and Form in Students' English. In Taylor, G., Ballard, B., Beasley, V., Clanchy, J., & Nightingale, P. *Literacy by Degrees.* Open University Press, Milton Keynes.

Technikon Natal, 2001. *Academic Literacy ENAP 1001 Study Guide.* Technikon Natal, Durban.

Terreblanche, M. & Durrheim, K. 1999. *Research in Practice: Applied Methods for the Social Sciences.* University of Cape Town Press, Cape Town.

Terreblanche, S. 2003. *Still Out in the Cold.* Sunday Tribune 12 October.

Tesch, R. 1990. *Qualitative Research: Analysis Types and Software Tools.* The Falmer Press, New York. Philadelphia. London.

Thesen, L. 1998. Creating Coherence. Design and critique of academic literacy materials *in Literacy in Academic Contexts* (ed.) S.Angelil-Carter. UCT Press.

Thomson, C. 2002. Massification, distance learning and quality in INSET teacher education: A challenging relationship. *Academic Development: Changes and Challenges.* Academic Development Centre, Rhodes University.

Van Maanen, J. 1988. *Tales of the field: on writing ethnography.* University of Chicago, Chicago.

Van der Mescht, H. 2001. *Four levels of rigour in interpretive qualitative research.* Department of Education, Rhodes University, Grahamstown.

Van der Mescht, H. 1999. *Reflections on Humanities Higher Degrees.* Department of Education, Rhodes University, Grahamstown.

Van Rensburg, V. 1994. Transforming the quality of teaching: an action research approach. *AD Dialogues.* Volume 2:27-43. University of the Western Cape, Bellville, Cape Town.

Volbrecht, T. 2002. *Literacy and learning: Towards an inclusive approach to literacy development in higher education institutions.* SAAAD Conference 'Student-Centred Learning: Challenges and Opportunities for Knowledge in Southern Africa'. University of Witwatersrand, Johannesburg.

Von Gruenewaldt, J.T. 1999. Achieving Academic Literacy in a second language: South Africa's educational predicament. *SAJHE.* 13 (1):205-211.

Walker, M. 2002. Higher education and a democratic learning society: professionalism, identities and educational action research. *Academic Development: Changes and Challenges.* Academic Development Centre. Rhodes University, Grahamstown.

Walker, M. 1993. Achieving Excellence: Research as a Basis for Curriculum Development. *AD Dialogues* 2:1-16. University of the Western Cape, Bellville, Cape Town.

Watkins, D. & Mboya, M. 1997. Assessing the Learning Processes of Black South African Students. *The Journal of Psychology.* 131(6):632-640.

Webber, M. 2001. *Discussions private conversation March/April.* Counselling Centre, Technikon Natal.

Wickham, S. 1995. *Qualitative Research One Day Workshop.* University of Natal, Durban.

Winter, R. 1989. *Learning from Experience: Principles and Practice in Action Research.* The Falmer Press, London.

Zuber-Skerritt, O. 1996. *Action Research in Higher Education.* Kogan Page, London.

APPENDIX A

STUDENT LEARNING SURVEY (SLI) (Purdie, Hattie & Douglas, 1996; Sitoe, 2000)

1.   Please fill in the information below.

Surname: Student No. :   Diploma: Age:

Date:

Home Language: Male or Female (Circle): M or F .   Year

Matriculated:

Did you do Maths in your Matric? (Circle) Yes or No.   If yes.   Symbol of Pass: (circle) A

B C D E F

Is this symbol at Higher grade or Standard grade? (Circle): Higher or Standard.

2.   Now please answer these questions.

1. Your lecturer informs you that you are going to have a short tutorial type *test* on a

section of your course Consumer Behaviour 1, for example on one of the chapters in your

text book :

1. 1. *List the steps* (actions) you would use to help you remember the section for this test?

_____

_____

_____

_____

1. 2. *List* the steps (actions) you would use if you are having difficulty in understanding or remembering for this test?

_____

_____

_____

2. Your lecturer informs you that you must *write a short essay* on a topic selected from your course Consumer Behaviour 1.   This essay will be marked and these marks will contribute to your course mark.

2. 1.   *List* the steps (actions) you would use to help you *plan and write* your essay?

_____

_____

_____

_____

2. 2.   What would you do if you are having difficulty with understanding the topic of the essay?

_____

_____

_____

_____

_____

_____

3. Your lecturer informs you that you have to do an assignment or project in your course Consumer Behaviour 1. This work will contribute to your *Course Mark*. This will require you to work on your own.

3. 1. *List* the steps (actions) you would use to make sure you complete the assignment or project correctly and on time?

_____

_____

_____

_____

_____

_____

_____

3. 2.   What would you do if you did not understand the assignment or project that has been set by the lecturer?

_____

_____

_____

_____

4.   When you have *completed* your assignment or project or essay:

4. 1.   *List* the steps (actions) you use for *checking* your work after it is completed?

_____

_____

_____

_____

_____

_____

_____

5.   Your lecturer will have *end of term tests* planned in the course.   These tests will also form an important part of your *course mark.*

5. 1. *List* the steps (actions) you will use for preparing for these tests?

_____

_____

_____

_____

5. 2. What will you do if in preparing for a test you find a section very difficult to learn?

_____

_____

_____

_____

113

6.   When you are doing end of term tests:

6.   1.   *List* the steps (actions) you use for making sure your answers are correct before

handing in your test for marking.

_____

_____

_____

_____

_____

6.   2.   What do you do when you find a question or questions in the test very difficult to

answer?

_____

_____

_____

_____

_____

_____

7.   You will as a student have many other interests, for example, playing a sport, partying with friends, watching TV etc. which can influence your studies:

7.   1.   _List_ the steps (actions) you will use to make sure your studies are not affected?

_____

_____

_____

_____

7.   2.   What will you do if you find the workload of all your courses is putting pressure on your time?

_____

_____

_____

_____

_____

8. Where you do your studying is important and it is necessary that you make sure the place where you study is free from distractions.

8. 1. What do you do to make sure you have a good place for studying?

_____

_____

_____

_____

8. 2. What do you do if this place is not ideal for studying, for example too much noise?

_____

_____

_____

_____

9. You have above described the things *you do* when engaged in *learning:*

9. 1. What in you view is *learning?* Give an example to illustrate, if possible.

_____

_____

_____

_____

_____

_____

_____

9. 2. What *do you mean* when you say you have learned something.

_____

_____

_____

From: Lawrence Olivier
To: Graham Douglas
Date: 10/19/01 8:42AM
Subject: Re: Permission

Many thanks for this, I shall keep you informed about the research.

The title of my masters thesis in higher education is

'Using an Academic Literacy course in a first year educational programme to investigate 'at risk' Technikon Natal students' perceptions of learning, use of learning strategies, and, learning styles, in relation to their achievement levels.'

I have adapted the instrument you used (Purdie et.al. 1996) and in addition I am using Kolb's Learning Style (Kolb,1993) instrument and an instrument that measures learning Approaches (Meaning Orientation / deep, Reproducing Orientation / surface and Achieving Orientation (Pickworth, 2001). Pickworth uses the instrument at the Medical School (Univ.of Pretoria).

The study is also interested in the connection between knowledge, learning and language (Taylor, Ballard & Clanchy, Nightingale et. al. in Literacy by Degrees, 1988). Also bilingual education (Cummins,1984) and the BICS / CALP distinction. These issues are particularly problematic in South Africa's educational system.

The methodology used is essentially a qualitative-case study about 15 'at risk' students. I am investigating how 'at risk' students perceive knowledge, learning and language use.

>>> Graham Douglas <gdouglas@ecel.uwa.edu.au> 10/19/01 04:42AM >>>
>Dear Graham
>
>Can you please advise whether you received my request to use an
>instrument for research purposes?

Hi Lawrence

Yes, you have my permission to use the instrument.

Best wishes

Graham Douglas

APPENDIX A.1: PERCEPTIONS OF LEARNING

HA1 is a eighteen year old Zulu speaking male and says learning:

> means to get information by reading, listening or experiencing and digest what you've taught and be able to apply it to daily life. You have understood all the facts, background and destiny of something and you have practical and true examples in mind and on daily life.

HA1 says learning 'means to get information' and this suggests the student perceives learning as about knowledge gathering. He also perceives learning as about applying knowledge, this is suggested when he says 'able to apply it to daily life'. These two perceptions suggest a surface or reproductive view of learning, however the phrase 'digest what you have been taught' and the word 'understood' and the phrase 'daily life' may suggest a broader, more complex and deeper view of learning as about understanding, meaning making and life-long learning. On this evidence the student is argued to be at a stage where he is developing a deep perception of learning. The student has a deep (-) perception of learning.

HA2 is a eighteen year old Zulu speaking female and views learning as:

> when you are thought (sic) something you didn't know and end up knowing it well, but you can know it if you are committed. You mean you have knowledge about something meaning you know something about that certain thing.

HA2 perceives learning as increasing knowledge this is indicated by the phrase 'you mean you have knowledge...' and this suggests she has a surface or

reproductive conception of learning. The phrase 'end up knowing it well' however suggests a deeper notion of learning as about understanding. The word 'committed' would suggest a perception of learning that may be connected to intrinsic motivation and this may be associated with a deeper perception of learning. However 'committed' could be interpreted as about being dedicated. On this evidence the student is argued to also be in a process of developing a deep perception of learning (but not as deep as HA1). This student is viewed as having a surface (-) perception of learning.

HA3 is a twenty year old Zulu speaking male and says learning:

> is a system of gathering information from the various sources and put that information in your mind so that you would be able to use this information at a later stage of your life. Learning is something that no one can take it a way from you. You mean you have studied something and understood it. You mean you give answers to questions asked about that thing.

HA3 perceives learning as increasing knowledge and this is indicated by the phrase 'a system of gathering information'. However a deeper perception of learning as understanding is suggested by the phrases 'various sources', 'put that information in your mind' and 'use this information at a later stage of your life'. The idea that learning cannot be 'taken a way from you' also suggests that he is developing a deep perception of learning rather than having a surface perception of learning. This student is interpreted as having a deep (-) perception of learning.

HA4 is a 17 old Zulu speaking female and says learning:

> is to have knowledge and understand new thing that you didn't know. It is about knowing and see thing that you haven't seen or understand before. It is when you have understood something and you know it.

HA4 perceives learning as about increasing knowledge and understanding. This is suggested by the phrase 'is to have knowledge and understand'. A deeper view of learning as understanding is also suggested by the phrase 'is when you have understood something and you know it'. This student's response suggests that a deeper perception of learning is developing. The student is interpreted as having a deep (-) perception of learning.

HA5 is a twenty year old South Sotho speaking female and says learning:

> is when one gain knowledge from something it can be good or bad but it has to stay in mind and be shown at some cases. Is when my mind acquire knowledge to the best of its ability and keep it in.

HA5 perceives learning as increasing knowledge. This is indicated by the phrase 'one gain knowledge'. The phrase 'keep it in' may suggest a view of learning as only about memorising (a surface perception), however it could be also interpreted that she perceives learning as about internalising and understanding. It is argued that although the evidence points to a surface perception of learning, there are

signs that a deep perception of learning is developing albeit weak. The perception is viewed as surface (-).

LA1 a nineteen year old Zulu speaking male says learning:

> is to get the clear information about something. It is to achive (sic) knowledge you were not having or to increase the one you had. You have to go on that particular thing in details so that you can be clear with. It means you have achived (sic) something. Now you know something or you are having the full information about that thing.

LA1 perceives learning narrowly as only about getting information and knowledge, a surface perception. This is indicated by the phrases, 'to get the clear information', 'to achive (sic) knowledge', 'having the full information'. The phrase 'in details' does suggest a possible search for deeper meaning and thus an emerging deep perception of learning. The language of the student (the writing) suggests that he has difficulty in expressing his views using the English language. This student is interpreted to have a surface (-) perception of learning.

LA2 is an eighteen year old Zulu speaking male and says learning:

> in my view is to read or study and get a full knowledge of that section. By saying I have learned something I mean that I have read that thing and understood it clearer, and having a full knowledge about that thing I've read.

LA2 perceives learning as increasing knowledge (a surface view) as indicated by the phrase 'get a full knowledge' however the phrase 'understood it clearer' does suggest that learning may also be connected to understanding (a deeper view). It is argued that LA2 has a surface perception of learning and possibly deep perceptions emerging. The student is viewed as having a surface (-) perception of learning.

LA3 is a twenty year old Zulu speaking female and she says learning:

> is when you get more information about something you didn't know or thought you knew. It means you have gained some information you didn't know about before'.

LA3 has a narrow view of learning as only about increasing knowledge and this suggests a surface perception of learning. This is indicated by the phrase 'you get more information'. She is argued to have a surface (+) perception of learning.

LA4 is a nineteen year old Zulu speaking female and says learning:

> is to get information that can help you in future and in every day of you (sic) life that will be the key to every door you want to open. By learning things that you are never aware of them because of that you get more information.

LA4 does not clearly articulate her perception of learning using the English language. She perceives learning as increasing knowledge, a surface perception.

This is suggested by the phrase 'to get information'. However the phrase 'help you in future and in every day of you (sic) life' does suggest a broader perception of learning as also about applying knowledge and life-long learning. There is no discernible deep perception of learning as about understanding. The student is viewed as having a surface (+) perception of learning.

LA5 is a nineteen year old Zulu speaking female and says learning:

> is to know something and you don't forgett (sic) it. It stays in your mind and that where you can say you learn something eg when you learn a consumer behaviour and then it comes to the time when I suppose to write a test and I pass it in 100% it where I learn because I have a knowledge. I mean I know something, it won't get out in my mind, it would always in my mind forever because I know it. I learn it.

LA5 does not clearly articulate her perception of learning using the English language. She perceives learning narrowly as only about increasing knowledge and memorising, a surface perception of learning. This is indicated by the phrases 'to know something and you don't forgett (sic) it'. The student is interpreted to have a surface (+) perception of learning.

APPENDIX A.2: CHANGES IN PERCPTIONS OF LEARNING

HA1 says learning is:

> to read a written material with the aim of understanding by being able to apply your own practical example. I have understood something that I know every side of it. I can do applications to the real life situation.

When compared with April (2001) HA1 has made no significant change to his deep (-) perception of learning. He continues to perceive learning as 1) increasing knowledge (a surface perception) which is indicated by 'to read a written material'; 2) as understanding (a deeper perception) indicated by 'the aim of understanding'; and 3) as about applying knowledge, indicated by 'I can do applications to the real life situation'.

HA2 perceives learning as:

> getting new ideas or knowledge about something that you didn't know and being able to store that information about that thing e.g. driving a car. You start off having no clue of how to drive it and then you get knowledge from someone who knows how to drive and then you keep that knowledge and you end up knowing how to drive. You mean you have gained knowledge of something that you didn't know about.

HA2 continues to perceive learning as increasing her knowledge, 'getting new ideas or knowledge about something', a surface perception. What she did not mention in April (2001) is that learning is about memorising, which is indicated by

the phrase 'being able to store that information' (a surface perception). The notion

of 'you keep that knowledge' may be viewed as surface as 'storing' but it may

suggest a deeper perception of learning as also about understanding because she

says 'you end up knowing how to drive'. There is no significant change in her

surface (-) perception of learning when compared with April (2001).

HA3 says learning is:

> the process whereby one engage in studying new ideas, research new ideas and
> revise those ideas, apply them to the course that one is studying.   You mean you
> understand them, practise and be able to answer questions on the thing you've
> learned.

The words 'process', 'research', 'revise', 'practise', were not used by HA3 in April

(2001) and these suggest the evolution of a deeper and more complex perception

of learning. The word 'revise' suggests the emergence of an ability to reflect, that is

metacognition which is also associated with a deepening approach to learning.

HA4 says learning is:

> when a person get to understand and know something. A person is having a new
> experience about something that person has never experienced e.g.   when a child
> starts to speak that child has just learn or has known and understood something
> new.   When you have learned something it is when you have come to an
> understand (sic) of it and it is something that might not have heard about it before.
> It is not only just to understand but to know that thing.

There is a change in HA4's surface (-) perception of learning when compared with April (2001). She continues to perceive learning as increasing knowledge (a surface perception) and as understanding as indicated by the phrase 'get to understand and know something' and she uses the word 'understand' three times, suggesting a more deeper perception of learning evolving.

HA5 says learning:

> is acquiring some knowledge from studying or having a look at a book even acquiring new information. I have gain knowledge that is going to stay in my mind and use it in related state.

HA5 has almost reproduced verbatim her response in April (2001). She perceives learning as increasing knowledge as indicated by 'acquiring some knowledge' and by saying the knowledge is 'going to stay in my mind' suggests a perception of learning as memorising. Both these perceptions are associated with a surface perception of learning.

Below are the LA students' perceptions taken from the students' responses in the SLS administered in September 2001. They are also compared with April 2001.

LA1 says learning is:

> you sit down and put your books, your dictionary and everything that can help you - then you study - write what you think you've learn (sic) so that you can make sure

127

you understand. You understand something you didn't know before - you have a clear meaning for that particular thing.

LA1 did not use the word 'understand' and the phrases, 'have a clear meaning', so that you can make sure you understand' in April 2001. These may suggest a change to a less surface and more deeper perception of learning.

LA2 says learning is:

> to study something with understanding and get involved in doing that thing practical (sic). I mean that I understand what I have studied.

LA2 has now included a perception of learning as applying knowledge, 'doing that thing practical' (a surface perception) which was not evident in April (2001). He continues to perceive learning as understanding, this is indicated by the phrase 'to study something with understanding'. The perception is viewed as unchanged that is surface (+).

LA3 says learning:

> can be described as a new experience. If you get to know something that you did not know.

LA3 has an unchanged surface (+) perception of learning when compared with April (2001). Her response in September (2001) is almost identical. Learning is

perceived as only about increasing knowledge. Her surface (+) perception is unchanged.

LA4 says learning is:

> to get more information that can help you in future. That can make things good for you (sic) life. By learning you get the things you are not aware of it or sure about it, but by learning you get to know things. You mean that you learned something that you were (sic) or you are not know about it or used to it.

LA4 almost reproduces her response in April (2001). Learning is perceived as only about increasing knowledge, 'to get more information', a surface (+) perception. She also has not improved her articulation of her perception of learning.

LA5 says learning is:

> to get an idea of something that you don't know and become familiar with it. Is a lesson e.g. like when we come to school everyday was unfamiliar but now we can (sic). It mean I know something.

LA5 also has not changed her perception of learning. She continues to perceive learning as increasing knowledge, 'to get an idea ... you don't know', and, as memorising, 'become familiar with it' (surface perceptions). There is no evidence of a deep perception of learning emerging. Her perception surface (+) has not changed.

APPENDIX A.3: METACOGNITION IN A WRITING TASK

HA1 - responds 'I would make sure that I read and understand the relevant section thoroughly then I try to find the right information to use as the introduction, body and conclusion of my essay. I will try to get enough information and examples to illustrate what I have said in the body of my essay'.

HA1 shows he has limited metacognitive knowledge of the self-regulating strategies used when writing an essay. This is evident when he says he 'try to find the right information to use as the introduction, body and conclusion' which indicates an understanding of structure and coherence needed in academic writing. He again makes mention of using 'examples to illustrate' (see evidence of this in his response in 4.2.1 on his conception of learning above) which is highly valued by his lecturers. However what is absent is an understanding of the important role of drafts, revision and editing in an academic writing task. These are self-monitoring and self-assessment abilities (metacognition). This absence confirms the absence of reflection when processing information, that is, the absence of Reflective Observation (RO) learning abilities in Kolb's model (the quadrant 2 in figure 4.1 above). This was discovered using the LSI instrument (see Tables 4.11; 4.12; and 4.13). A deep perception of learning is usually associated with metacognitive behaviour.

HA2 - responds 'I would first study/understand what the topic is about. Then collect books that I know I'll find information about that topic, then I'll start research after that I will then write the essay including all the information I found'.

HA2 reveals weak metacognitive knowledge in a writing task. The task she simplifies to three steps to 'understand the topic', to 'find information' and 'then write'. There is an absence of the role of editing and revising and the use of drafts. Although HA2 has an Assimilating learning style (quadrant 2 in figure 4.1) she does not here reveal any metacognitive knowledge, that is the ability to self-monitor and self-assess.

HA3 - responds 'I would firstly go to the library and read some journals about consumer behaviour. Secondly, I would read my text book to find future information about that particular essay. After collecting all the information relevant to the essay then I would structure my essay in point form'.

HA3 displays limited metacognitive knowledge. He simplifies the task to 'information', 'read my text book' and 'structure my essay in point form'. Listing in point form is a style of writing typical of standard grade high schooling. This style of writing may also be associated with a transmission mode teaching style and a

rote learning style also typical of standard grade type high schooling. Similar to HA1 and HA2 no ability to self-monitor and self-assess is expressed.

HA4 - responds 'I would go into the library and find different books and collect information'.

HA4 has a very limited understanding of the necessary metacognitive strategies associated with a writing task. She has one strategy to 'collect information'. As has been argued above this absence of an ability to self-monitor and self-assess is associated with a surface perception of learning.

HA5 - responds 'What the topic is about is the first step I have to take and find information or make research related to the topic and then give my side point of view concentrating on the topic'.

HA5 also has a limited understanding of what self-regulating strategies to use in a writing task. She has one main strategy which is to 'find information'. However she does seem to be aware of the need to use her own voice in her writing as this is revealed by 'give my side point of view'.

LA1 - responds 'To go to the library to the reference section and look for the world book to find out more about that topic. Go to the library and use the computer to find the relevant book to that particular topic. Read the Business news (sic) in the City Press and Sunday times (sic) as it contains more of the sections we are dealing with.'

LA1 reveals limited understanding of the metacognitive strategies used to write an academic essay. He sees it mainly as about reading and getting information 'to find the relevant book'. This is associated with a surface perception of learning.

LA2 - responds 'I would first edit the main points wich (sic) I am going to use when writing an essay. I would add my own views based on the topic of the essay. I would start writing putting my points by step to step (sic)'.

LA2 reveals a fairly good understanding of the metacognitive strategies involved in an academic writing task. He mentions 'edit', 'add my own views' which must be relevant 'based on the topic'. However he struggles with the use of the English language and this may be strongly influencing his academic performance.

LA3 - responds 'I will first ask myself that do (sic) I understand what is it that I have to do. I'll try to go to the library and get many information as possible about the topic given'.

LA3 has weak metacognitive knowledge. She has one strategy to 'get many information'. She also struggles with the English language and this may be a factor influencing her academic performance.

LA4 - responds 'First you must make sure that you understand what your essay is about, go to the library look for books that can help you or give you more information during your research, do some research in the companies that are related to that particular situation essay (sic). Get somebody you used (sic) to that particular way and ask how and what did things go in that way (sic)'.

LA4 has limited knowledge of the self-regulating strategies used when writing an academic essay. She also is not competent in the use of the English language. This is indicated by the number of (sics) and this may be a factor influencing her academic performance. She sees the task as mainly about 'give you more information' which is associated with a surface perception of learning. She does though suggest that she seeks other peoples views and not only relies on textbook information 'and ask how and what'.

LA5 - responds 'The first thing is to collect the information about that essay and to understand clear what is all about, and to go to the library can make a big help like to find information the reference books, world books etc'.

LA5 has one main strategy 'to collect the information' which is associated with a surface perception of learning. She also has a limited understanding of the self-regulating strategies used when writing an academic essay.

CHANGES:

HA1 - responds 'to research and gather useful data, make preliminary draft for my essay, then write the final draft'.

HA1 now includes the strategy 'make preliminary draft for my essay, then write the final draft'. Using drafts was a metacognitive strategy encouraged in the Academic Literacy (AL) Course. Students would receive feedback on their drafts and were required to use the comments to revise their piece of writing.

HA2 - responds 'I would ask the lecturer to explain clear what he wants from the essay. I would go to the library and do research on the topic, gather all the information and start writing'.

HA2 now includes the strategy that she would 'ask the lecturer'. This is also a result of the AL course as students were encouraged to have the courage to talk to their lecturers.

HA3 - responds 'I would firstly do a research by going to the library and find the relevant books or journals. I would also try to learn my notes'.

HA3 reveals no changes in his strategies. He continues to see a writing task as only about gathering information, 'find the relevant books'.

HA4 - responds 'find information in my textbook, find information in the library'.

HA4 also shows no changes and she still sees the writing task as only about 'find information'.

HA5 - responds 'search for information, try to understand the topic, consult the library'.

HA5 also makes no changes and she still sees the writing task as only about a 'search for information'.

LA1 – responds 'find as many as I can. Consumer behaviour (sic). Do research for that task. Do it in rugh (sic). Make the final work correcting the mistakes done in rugh (sic) work'.

LA1 now includes the strategy 'do it in rugh' which is a draft and he is engaged in revision 'correcting the mistakes done'. He does though reveal a difficulty with the English language as indictaed by the number of 'sics'. His competency in the English language may be an important factor influencing his academic performance.

LA2 – responds 'I would collect information on other books rather than prescribed text. Draft my work. Write the final work'.

LA2 now includes the strategy of a draft 'draft my work'. He may imply that he revises the draft by 'write the final work'.

LA3 – responds "Do I understand the topic. How can I approach the topic.'

LA3 reveals no change in strategy. She still sees the academic essay writing task as limited to 'understand the topic'.

LA4 – responds 'Do some research. Go to the library. Do some research that related to that particular more information (sic), ideas, etc.'.

LA4 also makes no changes to her strategies and still sees the writing task as only about gathering information 'do some research'.

LA5 – responds 'Find information about the essay. Make a draft.'

LA5 also makes no changes and she also still sees the writing task as only about 'find information'.

APPENDIX A.4: METACOGNITION IN A SHORT TUTORIAL TEST

HA1 - responds 'I take the textbook and look to the contents section to find the chapter. When learning that chapter I try to digest all the key words found in it. When I've found key words I try to get their means (sic) and practical examples then I am able to recall all I've learnt in class.'

HA1's main strategy is to 'digest all the key words'. He has used the word 'digest' in a number of times in the survey. He is consistent with the use of 'examples'. This also confirms his 'active' learning style when processing information (Table 4.11). When he says he 'try to get their means (sic)' this is interpreted as to get their meaning. All these metacognitive strategies will help him to 'recall'. All these strategies are associated with a deep (-) perception of learning.

HA2 - responds 'I would firstly write the date of the test on a year planner and highlight it with a pen; then I would make a time table as to when I must study for the test'.

HA2 has only one metacognitive strategy, time-tabling and this alone is not likely to facilitate learning and remembering. This limited metacognitive behaviour is associated with her surface (-) perception of learning diagnosed in Table 4.2.

HA3 - responds 'I would firstly take the topic of that certain chapter. Thereafter I would read until I know what is it all about. Next I would try to answer short questions at the end of the chapter, so that I could be able to know and remember that section.'

HA3 adopts metacognitive strategies that are likely to enhance remembering. He reads 'until I know' and then he tries 'to answer short questions'. This would seem to confirm a deep (-) perception of learning (Table 4.2).

HA4 - responds 'I would study and make summary of that section. I could also set some few questions and answer them just to see if I understand everything.'

HA4 uses a number of metacognitive strategies. She summarises, she answers 'few questions' and checks whether she 'understand everything'. All these strategies can enhance learning and remembering. This also confirms her deep(-) perception of learning (Table 4.2).

HA5 - responds 'When I get to my place I will look at the sections that the lecture told me about and try to study it correctly.'

HA5 uses metacognitive strategies that are unlikely to help her to remember. This seems to confirm her surface (-) perception of learning (Table 4.2).

LA1 - responds 'Read the notes the lecture provided us with as well as the book that is prescribed. To read different books helps to understand it better because they are not all explaining it in the same way.'

LA1 focuses only on a reading strategy and although he reads 'different books' these metacognitive strategies are unlikely to help him to remember. Also confirms his surface (-) perception of learning (Table 4.2).

LA2 - responds 'I would go to my notes and revise the section. I would go to read my text book to refer that what (sic) is in my notes.'

LA2 also uses a few metacognitive strategies that may help him to remember. Also confirms a surface (-) perception of learning (Table 4.2).

LA3 - responds 'I will revise the work on my own. Try to make my own notes from the chapter.'

LA3 says she revises by 'try to make my own notes' which is a metacognitive strategy that may help her to remember. However the limited number of strategies suggested confirms a surface (+) perception of learning (Table 4.2).

LA4 - responds 'The main point of helping you remember everything you have study is (sic) key words, making notes, reapiting (sic) what you have study. Get enough sleep. Try to concentrate in (sic) your books.'

LA4 uses a number of metacognitive strategies. She uses 'key words', makes 'notes', rehearses ('reapiting') and 'get enough sleep' is also important. These are likely to help her to remember. Her competency in the English language may be a factor explaining her not performing well academically. She is classified as having a surface (-) perception of learning (Table 4.2) whereas the strategies she mentions here are associated with a deep perception of learning.

LA5 - responds 'To lern (sic) according to that section can help me to remember that chapter and to find more information to the library and discussing with friends about that chapter can also help to know things that I was'n (sic) notice.'

LA5 although her English language is not good she does suggest a few metacognitive strategies that can help her to remember and are associated with a deep perception of learning. She seeks 'more information' and is 'discussing with friends' which are strategies that can facilitate both learning and remembering. She has been classified as a surface (+) perception of learning (Table 4.2) and may be her competency in the English language is a factor explaining her weak academic performance.

CHANGES:

HA1 - responds 'Learn the section. Gather all related information about the section. Use practical examples in the real life.'

No change. Using 'practical examples' he again considers important to memorising.

HA2 - responds 'Write in the year planner the due date of the tutorial. Mark the section with a marker so that I will know where to start reading.'

No change. Again mentions the 'year planner' as an important tool.

HA3 - responds 'I would use the notes to study what was said in class. I would organise the group that we'll study together with.'

Does make a change. He includes study groups as a tool.

HA4 - responds 'Read my notes. Read other book from the library if I do get time to go there.'

No change. Believes that reading alone will help her to remember.

HA5 - did not respond to this question.

LA1 - responds 'Obtain more knowledge from library. Summarise information received/obtained. Studying. Rewrite again and again until I clearly understand.'

Does make changes. He now includes 'summarise information' and 'rewrite again and again'.

LA2 - responds 'I would learn through that section on Text. Learn through notes. Do some research.'

No change.

LA3 - responds 'Revise the chapter. Ask questions if I don't understand.'

No change.

LA4 - responds 'Redo the section. Understand. Organised (sic) your work. Give time to read.'

No change.

LA5 - did not respond to this question.

APPENDIX A.5: METACOGNITION INAN END OF TERM TEST

HA1 - responds 'I will try to get all section that will be appearing on the test. Draft my own study time and use it effectively. I will learn my work effectively and profitably. Collect relevant data from other sources of information like books in library, video's, magazines etc.'

HA1 uses a number of metacognitive strategies. He gets an overview of the test, 'get all section', does some self-management through a time table and is

concerned that he uses it 'effectively'. He is strategic, 'collect relevant data' and does not rely on one source of information, 'books in library, video's, magazines etc'. The strategies are likely to enhance deep learning for an end of term test and also confirm his deep (-) perception of learning (Table 4.2).

HA2 - responds 'Write the date, venue and the time of the test on a year planner. Make a study time table and making sure that you stick on the times that you've set your self with.'

HA2 focuses only on one strategy time management and this single metacognitive strategy is not likely to enhance learning for the end of term test. This possibly also confirms her surface (-) perception of learning (Table 4.2).

HA3 - responds 'I would allocate my time properly first for all the courses. I will study 3 courses and two chapters on each course daily except Saturday and Sunday.'

HA3 also focuses on time management but includes other strategies. He considers other courses in his educational programme and sets himself goals, 'I will study 3 courses and two chapters on each course'. These metacognitive strategies can enhance learning for the end of term test and confirm his deep (-) perception of learning (Table 4.2).

HA4 - responds 'I will make a study time table and put it in the place where I will always be able to see it so that it can always encourage me to learn.'

HA4 has only one metacognitive strategy time management. She believes that making this visible will motivate her to learn. This single strategy is not likely to enhance learning for an end of term test. This does not confirm her deep (-) perception of learning (Table 4.2).

HA5 - responds 'Plan my time, to have enough time to study for that test and not (sic for note) it in my year planner that I have to start preparing for this test on this date looking at the other dates.'

HA5 also narrowly focuses on one metacognitive strategy, time management and this single strategy is not likely to enhance learning for an end of term test. This would confirm his classification as a surface (-) perception of learning.

LA1 - responds 'Form the study groups so that I can receive information from others and they also benefit from me. Study hard with my group members and even more harder if I'm lonely (sic). Find the other information to the relevant books in library.'

LA1 organises a study group and he values learning with others, when he states he 'receive information from others and they also benefit from me'. These metacognitive strategies can enhance learning for an end of term test however they are not sufficient to be able to describe him as having a deep perception of learning. He is described as having a surface (-) perception of learning (Table 4.2).

LA2 - responds 'I would study hard. I would use the text book and my notes to study up to the end of the work that is done during that term.'

LA2 does not explain what 'study hard' means and using 'the textbook and my notes' and these are not metacognitive strategies that can enhance learning for an end of term test. This confirms his surface (-) conception of learning (Table 4.2).

LA3 - responds 'I will study what we covered in that term. I will ask questions where I don't understand. Go to the library and search for more information. Write my own notes according to my understanding.'

LA3 uses a number of metacogntitive strategies that are likely to enhance learning for an end of term test. She 'ask questions where I don't understand', she 'search for more information' and she 'write my own notes according to my understanding'. LA3 uses strategies that are associated with deep perceptions of learning however she has been classified as having a surface (+) perception of learning.

LA4 - responds 'I must study all the work that will be included in the test and try to understanding (sic) what is all about. Try to find somebody that could help me during my preparation make sure that I know everything I need to know during the preparation using previous papers.'

LA4 uses a number of metacognitive strategies that can enhance learning for an end of term test. She 'try to understanding (sic)', she learns through others, 'try to find somebody that could help me'. She 'make sure that I know everything I need to know' and she uses past test papers, 'using previous papers'. She has been classified as having a surface (+) perception of learning (Table 4.2) however these strategies he mentions are associated with a deep perception of learning. Her

competency in the English language may be a factor explaining her poor academic performance.

LA5 - responds 'I would start to study early for the test so that it wo'nt (sic) be a problem to lern (sic) while I'm excited about going home.'

LA5 uses only one metacognitive strategy 'to study early' and seems to eager for home 'while I'm excited about going home'. These strategies will not enhance learning for an end of term test and also serve to confirm her classification as having a surface (+) perception of learning (Table 4.2). She also struggles to express herself in the English language and these may be factors explaining her poor academic performance.

CHANGES:

HA1 - responds 'I could draw the study time table. Reduce fun actions and study.'

HA1 has made a change. He re-arranges his social life and focuses more on his learning, 'reduce fun actions and study'.

HA2 - responds 'I would make a time table alocating (sic) certain hours that I learn for that test. Start learning early. Use past test papers.'

HA2 has made two changes. She sees the need to re-arrange her timetable and to 'start learning early'. She makes use of 'past test papers'.

HA3 - responds 'I would go to the library and study. Ask questions on something I'm not clear in. Use the lecturers notes.'

HA3 makes three changes he uses the 'library and study', he 'ask questions' and makes use of 'lecturers notes'.

HA4 - responds 'I start studying and collecting information as early as I can. I make sure that I study everyday so that I wont cry for my time.'
HA4 makes one change. She is 'collecting information as early as I can'.

HA5 - responds 'I will stop seeing friend to make sure that I have enough time for studying'.

HA5 makes one change she 'will stop seeing friend'.

LA1 - responds 'Read the work done from the beginning of that term. Use textbook to correspond.'

LA1 makes no significant changes.

LA2 - responds 'Studying hard and hard. Collecting information in school.'

LA2 makes no changes.

LA3 - responds 'Learn for the test. Make sure I understand what the test is all about.'

LA3 makes no changes.

LA4 - responds 'Learn so hard. Understand all my work. Try to be carefully (sic).'

LA4 makes no changes.

LA5 - responds 'Study the notes and also using the book and the library books.'

LA5 makes a change he includes all his learning materials, he 'study the notes ... the book and the library books'.

APPENDIX B

LEARNING STYLE INVENTORY (LSI) (Kolb, 1993)

The Learning style inventory describes the way you learn and how you deal with ideas and day-to-day situations in your life. Below are 12 sentences with a choice of endings. Rank the endings for each sentence according to how well you think each one fits with how you would go about learning something. Try to recall some recent situations where you had to learn something new, perhaps in your job or at school. Then, using the spaces provided, rank a "4" for the sentence ending that describes how you learn *best*, down to a "1" for the sentence ending that seems least like the way you learn. Be sure to rank all the endings for each sentence unit.

Please do not make ties.

Example of completed sentence set:

1. When I learn: *2* I am happy. *1* I am fast. *3* I am logical. *4* I am careful.

Remember: 4 = most like you 3 = second most like you 2 = third most like you 1 = least like you.

---

1. When I learn: I like to deal with my feelings.   I like to think about ideas.   I like to be doing things.   I like to watch and listen.

2. I learn best when: I listen and watch carefully.   I rely on logical thinking.   I trust my hunches and feelings.   I work hard to get things done.

3. When I am learning: I tend to reason things out.   I am responsible about things.   I am quiet and reserved.   I have strong feelings and reactions.

4. I learn by: feeling.   doing.   watching.   thinking.

5. When I learn: I am open to new experiences.   I look to all sides of issues.   I like to analyse things, break them down into their parts.   I like to try things out.

6. When I am learning: I am an observing person.   I am an active person.   I am an intuitive person.   I am a logical person.

7. I learn best from: observation.   personal relationships.   rational theories.   a chance to try out and practice.

8. When I learn: I like to see results from my work.   I like ideas and theories.   I take my time before acting.   I feel personally involved in things.

9. I learn best when: I rely on my observations. I rely on my feelings. I can try things out for myself. I rely on my ideas.

10. When I am learning: I am a reserved person. I am an accepting person. I am a responsible person . I am a rational person.

11. When I learn: I get involved. I like to observe. I evaluate things. I like to be active.

12. I learn best when: I analyse ideas. I am receptive and open-minded. I am careful. I am practical.

Lawrence Olivier

From: Lawrence Olivier <lawrence@umfolozi.ntech.ac.za>
To: <Ginny_Flynn@haygroup.com>
Cc: <Keith_Cornella@haygroup.com>
Sent: Monday, April 02, 2001 12:59 PM
Subject: Re: GenResearch.doc CV

Many thanks for the approval.
----- Original Message -----
From: <Ginny_Flynn@haygroup.com>
To: Lawrence Olivier <lawrence@umfolozi.ntech.ac.za>
Cc: <Keith_Cornella@haygroup.com>
Sent: Monday, April 02, 2001 2:23 PM
Subject: Re: GenResearch.doc CV

>
>
> Hi Lawrence,
>
> Your research proposal has been approved. Please fax the signed Conditional Use
> Agreement form to Keith Cornella at 617-927-5060, so that he may send you the
> questionnaire and score key.
>
> Regards,
> Ginny
>
>
>

091-617

CONDITIONAL USE AGREEMENT

For good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, I hereby agree that the permission granted to me by McBer and Company, Inc. and Hay Group, Inc. (collectively, "Hay/McBer") to receive and utilize, without charge, the _____LSI_____ is subject to the following conditions, all of which I hereby accept and acknowledge:
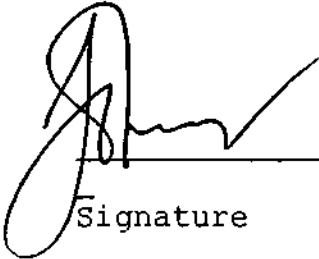
1. I will utilize the LSI for research purposes only and not for commercial gain.

2. The LSI, and all derivatives thereof, is and shall remain the exclusive property of Hay/McBer; Hay/McBer shall own all right, title and interest, including, without limitation, the copyright, in and to the LSI.

3. I will not modify or create works derivative of the LSI or permit others to do so.

4. I will provide Hay/McBer with a copy of any research findings arising out of my use of the LSI and will cite Hay/McBer in any of my publications relating thereto.

5. Hay/McBer will have no obligation to provide me with any scoring services for my use of the LSI other than the Algorithm used to score results.

6. Hay/Mcber will not be deemed to have made any representation or warranty, express or implied, in connection with the LSI, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

7. My rights under this Agreement are non-transferable and non-exclusive and will be limited to a period of two (2) years from the date of this Agreement.

8. Hay/McBer may immediately terminate this Agreement by giving written notice to me in the event I breach any of this Agreement's terms or conditions.

9. This Agreement will be construed in accordance with the laws of Massachusetts without recourse to its conflict of laws principles.

10. This Agreement may not be assigned by me without the prior written consent of Hay/McBer.

11. Failure by Hay/McBer to enforce any provisions of this Agreement will not be deemed a waiver of such provision, or any subsequent violation of the Agreement by me.

12. This is the entire agreement with Hay/McBer pertaining to my receipt and use of the _LSI_, and only a written amendment signed by an authorized representative of Hay/McBer can modify this Agreement.

Agreed and understood:

(signature)	LAWRENCE OLIVIER	2/4/2001
Signature	Print Name	Date

2

AMERICAN PSYCHOLOGICAL ASSOCIATION

IF THE TERMS STATED BELOW ARE ACCEPTABLE, PLEASE SIGN A
RETURN ONE COPY TO APA. RETAIN ONE COPY FOR YOUR RECOR
PLEASE NOTE THAT PERMISSION IS NOT OFFICIAL UNTIL A
RECEIVES THE COUNTERSIGNED FORM AND ANY APPLICABLE FEES.

Lawrence Olivier
P.O. Box 37196
Overport 4067
SOUTH AFRICA

APA Permissions Office
750 First Street, NE, 2nd Floor
Washington, DC 20002-4242
202-336-5541

**IN MAKING PAYMENT REFER TO
THE ABOVE INVOICE NUMBER**

Request is for the following APA-copyrighted material: Table 1 (adapted), page 91, from JOURNAL OF EDUCATIONAL
PSYCHOLOGY, 1996, *88*, 87-100

For the following use: Research for dissertation for a Masters degree in higher education at the University of Natal, Durban, South
Africa

File: Olivier, Lawrence (author)

Permission is granted for the nonexclusive use of APA-copyrighted material specified on the attached request contingent upon
fulfillment of the conditions indicated below:

    X   A fee of $___0___ shall be paid to APA on or before publication.

          This fee is ~~based on~~ waived. _____

    X   The reproduced material must include a full bibliographic citation and the following notice:
Copyright © 1996 by the American Psychological Association. Adapted with permission.

    X   You must obtain the author's (or, in the case of multiple authorship, one author's) permission. APA's
permission is subject to the condition that the author of the cited material does not object to your usage.
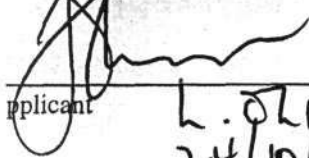
          A complimentary copy of the work shall be sent to the APA Permissions Office upon publication.

          Other/Comments;

This agreement constitutes permission to reprint only for the purposes specified on the attached request and does not apply to
subsequent uses, nor any form of electronic use. Permission applies solely to publication and distribution in the English
language throughout the world, unless otherwise stated. No changes, additions, or deletions to the material other than any
authorized in this correspondence shall be made without prior written consent by APA. This permission does not include
permission to use any copyrighted matter obtained by APA or the author(s) from other sources that may be incorporated in
the material. It is the responsibility of the applicant to obtain permission from such other sources.

ACCEPTED AND AGREED TO BY:

PERMISSION GRANTED ON ABOVE TERMS:

Applicant   *L. OLIVIED*
24/10/2001

for the American Psychological Association

10-3-01

Date   Date

____ I wish to cancel my request for permission at this time.

APPENDIX B.1: RECEIVING INFORMATION

HA1 has a score -3 on the combination score AC-CE and this suggests he has a preference to receive information through the channel concrete experiences (CE) or personal involvement rather than through the channel abstract conceptualisation (AC) or theory. This suggests that the student prefers to be personally involved (CE) rather than analytically detached (AC) when he receives information.

This preference for CE may be explained by his exposure to CALP related tasks (context-reduced and cognitively demanding texts and situations) at the level of high school and literacy practices in the home. When the class was asked how many read widely no 'at risk' student in the class admitted to reading widely. However when the same question was asked of the top student in the course (not 'at risk' and not African) she read widely (including novels). There may be also a gender factor at work here as females are more likely to read widely than males. No 'at risk' African student male or female however indicated at the time of the study any enthusiasm for reading and reading widely.

HA2 has a +12 score on the combination score AC-CE and this suggests she has a strong preference to receive information through theory (AC) rather than from concrete experiences (CE), that is, she prefers to be analytically detached rather than personal involvement when receiving information. This student has a former

model C school background and her mother teaches English. This may explain her preference for AC.

HA3 has a score of +4 on the combination score AC-CE and this suggests he has a preference to receive information through theory (AC) rather than concrete experiences (CE).

HA4 has score of -1 on the combination score AC-CE and this suggests she prefers to receive information through concrete experiences (CE) rather than theory (AC).

HA5 has a score of +11 on the combination score AC-CE and this suggests a strong preference to receive information through theory (AC) rather than concrete experiences (CE).

LA1 has a score of +15 on the combination score AC-CE and this suggests he has a strong preference to receive information through theory (AC) rather than concrete experiences (CE).

LA2 with a score of 0 on the combination score AC-CE suggests he has no strong preference either way.

156

LA3 with a score of -10 on the combination score AC-CE suggests she has a strong preference to receive information through concrete experiences (CE) rather than through theory (AC).

LA4 with a score of +3 on the combination score AC-CE suggests she has a preference to receive information through theory (AC) rather than through concrete experiences (CE).

LA5 with a score -10 on the combination score AC-CE suggests she has a strong preference to receive information through concrete experiences (CE) rather than through theory (AC).

APPENDIX B.2:   PROCESSING INFORMATION

HA1 with a combination score of +19 (AE-RO) suggests a strong preference to process information through action (AE) rather than reflection (RO).

HA2 with a combination score of 0 (AE-RO) has no dominant preference when processing information.

HA3 with a combination score of +6 (AE-RO) has a preference to process information through action (AE) rather than reflection (RO).

HA4 with a combination score of -3 (AE-RO) has a preference to process information through reflection (RO) rather than action (AE).

HA5 with a combination score of +3 (AE-RO) has a preference to process information through action (AE) rather than reflection (RO).

LA1 with a combination score of +7 (AE-RO) prefers to process information through action (AE) rather than reflection (RO).

LA2 with a combination score of +18 (AE-RO) has a strong preference to process information through action (AE) rather than reflection (RO).

LA3 with a combination score of +16 (AE-RO) has a strong preference to process information through action (AE) rather than reflection (RO).

LA4 with a combination score of +7 (AE-RO) has a strong preference to process information through action (AE) rather than reflection (RO).

LA5 with a combination score of +2 (AE-RO) prefers to process information through action (AE) rather than reflection (RO).

APPENDIX B.3: CHANGES IN RECEIVING / PROCESSING INFORMATION

HA1 - much more abstract when receiving information (-3 to +7 on the combination score AC-CE) and still strongly prefers to process information through action rather than reflection (+19 to +15 on the combination score AE-RO) - change is from concrete-active to abstract-active.

HA2 - strong preference increases for abstract channel when receiving information (+12 to +15 on the combination score AC-CE) and much more reflective when processing information (0 to -7 on the combination score AE-RO) - change is more abstract-reflective.

HA3 - slightly more concrete when receiving information (+4 to +3 on the combination score AC-CE) and slightly more reflective when processing information (+6 to +5 on the combination score AE-RO) - change is more concrete-reflective and less abstract-active.

HA4 - more concrete preference when receiving information (-1 to -5 on the combination score AC-CE) and much more reflective when processing information (-3 to -11 on the combination score AE-RO) - change is more concrete-reflective.

HA5 - strong shift to more concrete emphasis when receiving information (+11 to -7 on the combination score AC-CE) and slightly more reflective when processing information (+3 to 0 on the combination score AE-RO) - change from abstract-active to concrete-reflective.

LA1 - less abstract when receiving information (+15 to +11 on the combination score AC-CE) and much more active when processing information (+7 to +17 on the combination score AE-RO) - change more emphasis on being active on abstract-active pole.

LA2 - much more abstract when receiving information (0 to +8 on the combination score AC-CE) and remains strongly active when processing information (+18 to +16 on the combination score AE-RO) - change is more abstract on abstract-active pole.

LA3 - more concrete and less abstract when receiving information (-10 to -5 on the combination score AC-CE) and much less active and more reflective when processing information (+16 to +9 on the combination score AE-RO) - change on abstract-active pole less abstract and more reflective.

LA4 - much more abstract when receiving information (+3 to +12 on the combination score AC-CE) and much more active when processing information (+2

to +19 on the combination score AE-RO) - change is more abstract and more active on abstract-active pole.

LA5 - less concrete and more abstract when receiving information (-10 to -5 on the combination score AC-CE) and much more active when processing information (+2 to +19 on the combination score AE-RO) - change more active and more reflective on abstract-active pole.

APPENDIX B.4: CHANGES IN LEARNING STYLES

HA1 has changed his learning style from concrete-active (accommodating) to abstract-active (converging). This is because of the stronger emphasis he places on abstraction (AC) when *receiving information*.

HA2 although continues to adopt an assimilating learning style (abstract-reflective), she places more emphasis on reflection (RO) when *processing information*.

HA3 has changed his learning style from abstract-active (converging) to concrete-reflective (diverging). This is because he places more emphasis on concrete experiences (CE) when *receiving information* and slightly more emphasis on reflection when *processing information*.

HA4 although she has not changed her learning style she has become more concrete-reflective (diverging). She places greater emphasis on concrete experiences (CE) when *receiving information* and is more reflective when *processing information*.

HA5 has changed her learning style from abstract-reflective (assimilating) to concrete-reflective (diverging). She places more emphasis on concrete

experiences when *receiving information* and is more reflective when *processing information.*

LA1 although he has not changed his learning style abstract-active (converging) he places greater emphasis on action (AE) when *processing information* and less emphasis on abstractions (AC) when *receiving information.*

LA2 has changed his learning style from concrete-active (accommodating) to abstract-active (converging). This is because he emphasises abstractions (AC) more so when *receiving information* and continues to strongly prefer action (AE) rather than reflection when *processing information.*

LA3 has not changed her learning style concrete-active (accommodating). She does though emphasise more concreteness when *receiving information* and reflection when *processing information.*

LA4 has changed her learning style from concrete-active (accommodating) to abstract-active (converging). She places greater emphasis on abstractions (AC) when *receiving information* and on action (AE) when *processing information.*

LA5 has changed her learning style from concrete-reflective (diverging) to concrete-active (accommodating). She places much greater emphasis on action

(AE) when *processing information* and is less concrete when *receiving information*. Table 4.13 below summarises the data analysis.

APPENDIX C

APPROACHES TO LEARNING AND STUDYING INVENTORY (ALSI) (Pickworth, 2001)

Please answer the questions as honestly as possible in the following way. In the block next to the statement place the number 5, 4, 3, 2 or1.

5 means you *definitely agree* with the statement

4 means you *slightly agree* (you *agree* to some extent)

3 is *only* to be used if you find it *not possible to give a definite answer*

2 means you *slightly disagree* (you *disagree* to some extent)

1 means *definitely disagree*.

NAME: STUDENT NO.   DATE:

STATEMENTS

1.   I often question things that I hear in lectures or read in books.   [   ]

2.   I think browsing around is a waste of time, so I only study seriously what's given out in class or in the study guide.   [   ]

3. If conditions are not right for me to study, I generally manage to do something to change them. [ ]

4. When I am tackling a new topic, I often ask myself questions about it which the new information should answer. [ ]

5. I find I have to concentrate on memorising a good deal of what we have to learn. [ ]

6. After a lecture or lab I re-read my notes to make sure that they are legible (I can read them) and that I understand them. [ ]

7. I try to relate new material, as I am reading it, to what I already know on the topic. [ ]

8. Often I find I have studied things without a chance to really understand them. [ ]

9. I test myself on important topics until I understand them completely. [ ]

10. I try to relate what I have learned in one subject to that what I have learned in another. [ ]

11. I find it best to accept the statements and ideas of my lecturers and question them only under special circumstances. [ ]

12. I keep neat, well organised notes for most subjects. [ ]

13. While I am studying, I often think of real life situations to which the material that I am learning would be useful (I can apply). [ ]

14. I am very aware that lecturers know a lot more than I do, so I concentrate on what they say is important rather than rely on my own judgement. [ ]

15. I find it easy to organise my study time effectively. [ ]

16. I need to read around a subject pretty widely before I'm ready to put my ideas down on paper. [ ]

17. I like to be told precisely what to do in essays or other set work. [ ]

18. I try to work consistently throughout the semester and review / revise regularly when the exams are close. [ ]

19. I find it helpful to 'map out' a new topic for myself by seeing how the ideas fit together.   [   ]

20. I tend to read very little beyond what's required for completing assignments or for tests / exams.   [   ]

21. I am usually prompt in starting work when I have to study, do assignments or self study course work.   [   ]

22. In reporting practical work, I like to try to work out several alternative ways of interpreting the findings.   [   ]

23. I generally restrict my study to what is specifically set as I think it is unnecessary to do anything extra.   [   ]

24. Often I find myself wondering whether the work I am doing here is really worthwhile.

25. I am usually cautious in drawing conclusions unless they are well supported by evidence.   [   ]

26. The continual pressure of work - assignments, deadlines, and competition often makes me tense and depressed.   [   ]

27. When I look back, I sometimes wonder why I ever decided to come here. [ ]

28. Puzzles or problems fascinate me, particularly where you have to work through the material to reach a logical conclusion. [ ]

29. A poor first answer in an exam makes me panic. [ ]

30. I certainly want to pass the next set of exams, but it doesn't really matter if I only scrape through. [ ]

31. When I am reading an article or research report I generally examine the evidence carefully to decide whether the conclusion is justified. [ ]

32. I am discouraged by a poor mark on a test and worry about how I will do on the next one. [ ]

33. It is important to me to do really well in the courses here. [ ]

34. I find that at times studying gives me a feeling of deep personal satisfaction. [ ]

35. Even when I have studied hard for a test, I worry that I may not be able to do well in it. [ ]

36. My habit of putting off work leaves me with far too much to do before a test or at the end of a term. [ ]

THANK YOU FOR COMPLETING THIS INVENTORY

From:	Dr Glynis Pickworth <glynis@medic.up.ac.za>
To:	Lawrence Olivier <Lawrence@ntech.ac.za>
Date:	9/17/01 11:45AM
Subject:	Re: Fwd: ALSI

Lawrence

Sorry for the delay in replying. I have been away and mountains of work, etc. You are welcome to use the ALSI for your case study. I am sure that if you publish you will use
the SAJHE reference. I am attaching the latest version. I would be interested to know what your results are.

regards
Glynis Pickworth

Lawrence Olivier wrote:

> Hi Dr Pickworth can you please reply to my request and permission to use the ALSI instrument for research purposes only. I am currently doing a case study in my institution.
>
> --
>
> Subject: ALSI
> Date: Thu, 13 Sep 2001 13:53:22 +0200
> From: "Lawrence Olivier" <Lawrence@ntech.ac.za>
> To: <glynis@medic.up.ac.za>
>
> Dear Dr Pickworth
>
> I am currently researching learning in my institution and request permission to use the ALSI you designed for research purposes only.
> I read your article on developing the instrument (SAJHE, vol 15 no 2, 2001) and using the ALSI would give another angle to my study.
> Can you please advise on use of the ALSI for research purposes only?
> I did telephone you today and left a message on your answering machine.

--
Dr Glynis Pickworth
Education consultant

University of Pretoria
Faculty of Health Sciences
PO BOX 667 PRETORIA 0001
SOUTH AFRICA

HW Snyman Building-South
Room 4-80

Tel: ++ 27 12 354 1909
Fax: ++ 27 12 354 1390
Email: glynis@medic.up.ac.za

APPENDIX C.1: INCIDENCE OF DEEP AND SURFACE LEARNING

HA1 has a high incidence of deep learning which is shown by a high score of 49 on the scale MO and high incidence of surface learning shown by a high score of 49 on the scale RO. This does not fit the pattern of quality learning (high MO and low RO scores). He has a low score of 24 on the scale AO which suggests inefficient use of study methods, a negative attitude and not motivated to achieve.

The high MO score and high RO score (Table 4.3) supports the classification of HA1 having a deep (-) perception of learning (Table 4.2) on the continuum deep-surface.

HA2 has a high score of 50 on the scale MO (a high incidence of deep learning) and a relatively low score of 39 on the scale RO (a relatively lower incidence of surface learning) and this suggests to some extent quality learning is taking place. Her score of 32 on the AO scale is relatively high and suggests she has a positive attitude and is motivated to achieve.

This contradicts the classification as a surface (-) perception of learning in Table 4.2 above. Her scores on Table 4.3 suggest that a deeper perception of learning

exists (a higher incidence of deep learning). This needs further examination and cross-checking with other data collected in the study.

HA3 has a relatively low score of 42 on the scale MO (a low incidence of deep learning) and a very high score of 56 on the scale RO (a high incidence of surface learning) and this suggests quality learning is not taking place. His very low score of 11 on the scale AO suggests a negative attitude, inefficient use of study methods, and that he is not motivated to achieve.

His low score on the MO scale (Table 4.3 above) suggests that he has a less deeper perception of learning (more closer to a surface) than is suggested by the classification deep (-) in Table 4.2.

HA4 with a score of 46 on the MO scale has a relatively low incidence of deep learning and a relatively high incidence of surface learning is suggested by the score of 49 on the scale RO. This indicates she is not engaging in quality learning. She has a very low score of 4 on the scale AO and this indicates a very negative attitude, inefficient use of study methods and is not motivated to achieve.

This suggests that the classification as having a deep (-) perception of learning in Table 4.2 may not be accurate. The scores on Table 4.3 suggest she has a higher incidence of surface learning.

HA5 scores 47 on the scale MO which suggests a relatively high incidence of deep learning. Her score of 44 on the scale RO reflects a high incidence of surface learning. This suggests that quality learning is not taking place. She has a low score of 16 on the scale AO and this indicates a negative attitude, inefficient use of study methods and that she is not motivated to achieve.

These scores suggest that there may be more depth to her perception of learning than what has been classified in Table 4.2 as surface (-).

LA1 scores 53 on the scale MO and this reveals a high incidence of deep learning. His high score of 43 on the RO scale suggests also a high incidence of surface learning as well. High scores on both scales suggest that quality learning is not taking place. The score of 24 on the scale AO is relatively low and this suggests a negative attitude, inefficient use of study methods and that he is not motivated to achieve.

These scale scores suggest that LA1 has more depth to her perception of learning than what was revealed by the analysis in Table 4.2 although the analysis did state 'more deeper from surface (-)'.

LA2 has a low score of 42 on the scale MO and a low score of 34 on the RO scale. This does not indicate quality learning is taking place. He scores 25 on the AO scale which suggests a negative attitude, inefficient use of study methods and that he is not motivated to achieve.

These scores suggest a deeper approach to learning to what was captured by the SLS (Table 4.2 above) although the analysis did state that LA2 has a 'more deeper from surface (-)' perception of learning (Table 4.2).

LA3 has a high score of 54 on the scale MO which suggests a high incidence of deep learning and a low score of 34 on the scale RO which is a low incidence of surface learning. This suggests quality learning is taking place. Her score on the scale AO is a low 28 and this suggests a negative attitude, inefficient use of study methods and that she is not motivated to achieve.

This data contradicts the analysis in Table 4.2 above which classified LA3 as having a surface (+) perception of learning. This data requires further cross-checking with other data collected in the study.

LA4 has a relatively low score of 45 on the MO scale and a relatively high score of 41 on the scale RO. This does not indicate quality learning is taking place. On the

other hand her score of 32 on the AO scale is relatively high which suggests she has a positive attitude, uses efficient study methods and is motivated to achieve.

This data seems to confirm the classification in Table 4.2 of LA4 as having a surface (+) perception of learning.

LA5 has a high score of 49 on the scale MO and a high score of 42 on the scale RO. This does not indicate quality learning is taking place. Her AO scale score is very low at 16 and this indicates a negative attitude, inefficient use of study methods and that she is not motivated to achieve.

APPENDIX D

ACADEMIC LITERACY 2001   NAME OF STUDENT:

COURSE ENAP1001   STUDENT NUMBER:

SIGNATURE:

DATED:

Dear Student

Your course is now in its final stages and because the course is based on

Continuous Assessment there is no end of year examination.   All the marks

earned in the year contribute to a final mark.   The pass mark is 50%.

Below is a CHECKLIST of tasks you have to do to complete the course.

Your course mark cannot be finalised unless you have completed all tasks

listed below.

1. PLATO

2. ORAL PRESENTATION (Group work) on 'Establishing a Business'.

3. ESSAY (individual work) on 'Establishing a Business'.

4. FILE for assessment, which has in it, your academic literacy work for the academic year and the tests you have completed in your educational programme Retail Business Management.

5. QUESTIONNAIRES.

At the beginning of the course I informed you that I was also doing research into your perceptions of learning, your learning styles and learning strategies.

This involved you in completing self reports.

In the first term you completed a Learning Style Inventory and a Student Learning Survey.   I request that you complete these two again in this third term.

In addition I request that also in the third term you complete the instrument Approaches To Learning and Studying Inventory.

Your cooperation in completing these is appreciated.

6. FINAL INTERVIEW (FOURTH TERM)

In order to complete the course and get your final mark, you are required to attend an INDIVIDUAL INTERVIEW. At this interview there will also be a report back on the Questionnaires you completed.

PLEASE MAKE AN APPOINTMENT with me for a convenient date.

Lawrence Olivier (Lecturer Academic Literacy Course)