

**First Level Library and/or Information Science Qualifications at
South African Universities and Technikons : a Comparative Study of
Curricula**

by

Jayarani Raju

MIS (University of Natal)

Supervisor

Prof. A.M. Kaniki

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Declaration

I hereby declare that this whole thesis, unless specifically indicated to the contrary in the text, is my own work and has not been submitted for a degree at any other university.

Candidate

Signature

J. Raju

A handwritten signature in black ink, appearing to read 'J. Raju', written over a horizontal line.

While the financial assistance of the National Research Foundation towards this study is acknowledged, opinions expressed in this thesis and conclusions arrived at, are those of the researcher and are not necessarily to be attributed to the National Research Foundation.

Dedication

This thesis is dedicated to my husband Reggie, who has shared in my difficulties and has contributed immensely to my achievements, and whose selflessness I so admire.

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Abstract

The general purpose of the research was to do a comparative study of first level library and/or information science (LIS) qualifications offered at South African universities and technikons. These qualifications included the National Diploma: Library and Information Studies (ND: LIS), the Bachelor of Technology: Library and Information Studies (B.Tech.(LIS)), the Post-graduate Diploma in Library and/or Information Science and the Bachelor of Library and Information Science (B.Bibl.) or equivalent four-year university degree.

Self-administered questionnaires were used to survey the views of employers, past students and educators in the LIS field regarding these qualifications and their relevance to the LIS services work environment. Descriptive statistics as well as content analysis were used to analyse the data collected. Discussion of findings based on analysis of data and in the context of related literature, resulted in a number of conclusions.

The study supports the view that general education as provided by a university bachelor's degree distinguishes between professional and paraprofessional LIS education and training. The study confirms that the university Post-graduate Diploma in Library and/or Information Science and the B.Bibl. (or equivalent four-year university degree) are established professional LIS qualifications in South Africa. While the technikon ND: LIS is generally viewed as a paraprofessional qualification, LIS services employers are not using this qualification in its paraprofessional context with paraprofessional post designations and career progressions. The technikon B.Tech.(LIS) cannot be viewed as a professional LIS qualification as it lacks general education. Furthermore, it is a qualification in the hierarchy of paraprofessional LIS qualifications that runs parallel to the professional LIS career path and thus the B.Tech.(LIS) is not a step in the direction of LIS professionalism. It is part of an alternative career direction. A further conclusion is that in view of the traditional purpose of technikon education and training *vis-à-vis* university education and

training, limited general education and not extended general education is necessary in the technikon LIS curriculum.

The study suggests that the professional LIS body, educators, employers and graduates and diplomates in the LIS field in South Africa have specific roles to play in ensuring understanding that LIS professionalism and paraprofessionalism are alternative or parallel career paths each with its own career progressions and with valuable roles to play in LIS services. However, there should be possibilities for articulation between LIS professionalism and paraprofessionalism at the education and training level.

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List of Abbreviations

ABET	Adult basic education and training
AIL	Australian Institute of Librarians
ALA	American Library Association
ALIA	Australian Library and Information Association
APC	Academic Planning Committee
B.A.	Bachelor of Arts
B.Bibl.	Bachelor of Library and Information Science
B.Com.	Bachelor of Commerce
B.Inf.	Bachelor of Information Science
B.Tech.	Bachelor of Technology
B.Tech.(LIS)	Bachelor of Technology in Library and Information Studies
CAE	Colleges of advanced education
CATE	College for advanced technical education
CHE	Council on Higher Education
CILIP	Chartered Institute of Library and Information Professionals
CNAA	Council for National Academic Awards
CUP	Committee of University Principals
D.Tech.	Doctor of Technology
DDC	<i>Dewey decimal classification</i> scheme
DIT	Durban Institute of Technology
ETQA	Education and Training Quality Assurance body
FETC	Further Education and Training Certificate
FULSA	Forum of University Librarians
GETC	General Education and Training Certificate
HEQC	Higher Education Quality Committee
HSRC	Human Sciences Research Council
ICT	Information and communication technologies
IFLA	International Federation of Library Associations and Institutions
IFLA-SET	International Federation of Library Associations and Institutions - Section on Education and Training

IT	Information technology
ITLC	Inter-Technikon Library Committee
LA	Library Association (United Kingdom)
LAA	Library Association of Australia
LIASA	Library and Information Association of South Africa
LIS	Library and/or information science
LIS services	Library and/or information services
LTA	Library technical assistant
M.A.	Master of Arts
M.Com.	Master of Commerce
M.Tech.	Master of Technology
MBA	Masters in Business Administration
NAP	New Academic Policy
NCHE	National Commission on Higher Education
ND: LIS	National Diploma in Library and Information Studies/Practice/Services
NEPI	National Education Policy Investigation
NQF	National Qualifications Framework
NSB	National Standards Body
OBE	Outcomes-based education
RPL	Recognition of prior learning
SAILIS	South African Institute for Librarianship and Information Science
SALA	South African Library Association
SAQA	South African Qualifications Authority
SERTEC	Certification Council for Technikon Education
SAUVCA	South African University Vice-Chancellors' Association
SGB	Standards Generating Body
<i>SPSS</i>	<i>Statistical package for the social sciences</i>
TAFE	Technical and further education
UNESCO	United Nations Educational, Scientific and Cultural Organisation
Unisa	University of South Africa

CHAPTER 1:

Introduction and Background to the Study

1.1 **Identification of the research problem**

Horton (1990: 1) observed in the early 1990s that there was confusion for those currently employed in library and/or information services, those who wish to become library and/or information professionals and those who want to employ library and/or information professionals as to what level of education and training is required for given posts in the library and/or information services (LIS services)ⁱ work environment. Ten years later the situation has not changed much. In fact it has been further complicated by new developments in the higher education system in South Africa. For instance, in recent years technikons have begun offering programmes leading to doctorates. The higher education sector has also been challenged through the National Qualifications Framework (NQF) to articulate programmes between types of higher education institutions. More recently the Education Ministry has announced, as part of the higher education sector, comprehensive institutions that will offer university and technikon type of programmes, and this has added to the 'confusion'.

There is also lack of clarity among the majority of people associated with library and/or information services as to the relationship between university and technikon first level library and/or information science (LIS) education and training (Kaniki 2002). LIS educators as well, need to decide what to teach, at what levels and for what types of posts in the work environment.

This situation is not peculiar to South Africa, but a world wide one (Horton 1990: 1). However, countries such as the United States of America, Canada and Australia have in some way addressed the problem as is evident from the literature reviewed in Chapter 2. The library and information services profession in South Africa needs to do the same. As indicated above, the situation is aggravated by the fact that

technikons in South Africa, which had previously offered non-degree programmes only, have begun to offer programmes leading to degree qualifications. For these and many other reasons, a comparative study of first level library and/or information science qualifications in South Africa needs to be undertaken. It is hoped that this study will provide guidance to employers, students and educators regarding education and training as well as employment in the library and/or information services field.

1.2 **Significance of the study**

A comparative study of first level library and/or information science qualifications is necessary in the light of the new education ethos in South Africa in which access and articulation have become important aspects in the transformation process in education. The NQF is currently being used to bring about transformation in education by providing an integrated framework for all levels of education and training in South Africa. A comparative study of first level library and/or information science qualifications would be useful in investigating the means for articulation between university and technikon LIS programmes specifically, and university and technikon programmes generally.

There has also been a general drive in the post-1994 era to achieve efficiency and excellence in all work environments, including public, private and education sectors. Spearheading the latter are rationalisation programmes involving, physical, human and other resources, for example the government's *National plan for higher education* (Ministry of Education 2001) and its *Approved academic programmes for universities and technikons : 2003-2006* that has specifically called for a review of duplication of LIS programmes in KwaZulu Natal (Ministry of Education 2002). In order to contribute effectively to these new challenges which are all geared to social and economic development of the South African nation at large, those involved in LIS education and training too need to rigorously examine current programmes and ascertain how effective they are in contributing to achieving efficiency and excellence in the education and training environment as well as in the LIS services work environment.

Objectives of the study

In view of the trends outlined in 1.1 and 1.2 above, it is hoped that a comparative study of first level library and/or information science qualifications at South African universities and technikons would be useful in:

1. providing clarity to those currently employed in library and/or information services, those who wish to become library and/or information professionals and those who want to employ library and/or information professionals as to what type of first level education and training is required for given posts in the LIS services work environment;
2. providing clarity to library and/or information science educators regarding what job specifications they should be targeting in the academic curriculum, especially in view of the seemingly blurred demarcation between university and technikon library and/or information science education;
3. informing curriculum development and particularly the identification of what constitutes or should constitute the 'core' in library and/or information science education and training;
4. examining what possibilities exist for institutional specialisation in library and/or information science education and training amongst the various higher education institutions in South Africa that offer library and/or information science qualifications, particularly in the context of the present government's current drive toward rationalisation in higher education; and
5. informing policy formulation regarding articulation between library and/or information science programmes at higher education institutions, particularly universities and technikons.

1.4 Research questions

The following research questions had been generated in order to meet the research objectives set out in section 1.2 (**Objectives of the study**):

- a. What are the job titles and key job tasks or functions of posts in the library and/or information services sector that require knowledge and skills that are imparted by first level library and/or information science qualifications?
- b. To what extent do the various first level library and/or information science programmes currently being offered in South Africa meet the job tasks or functions of posts that require the knowledge and skills that are generally imparted by first level library and/or information science qualifications?
- c. What constitutes or should constitute the 'core' in library and/or information science education and training?
- d. Is having a broad base of knowledge (general education) essential in the provision of an efficient library and/or information service and if so, what are possible ways in which technikon library and/or information science curricula, which lack broad based education, can incorporate this?
- e. What possibilities exist in South Africa for institutional specialisation in library and/or information science education and training amongst the various universities and technikons offering library and/or information science qualifications?
- f. What is the purpose of university education and training on the one hand and technikon education and training on the other?
- g. In the light of the new education ethos in South Africa, what have been some of the major changes in higher education and how have these changes

impacted on the traditional cultures and values of universities and technikons in South Africa?

- h. What are the similarities and differences between university and technikon library and/or information science education and training?
- i. What are the possibilities for articulation between university and technikon library and/or information science education and training in South Africa?

1.5 **Definitions of terms**

It is important to provide definitions or explanations of terms as they are used in this study:

1.5.1 **Programme**

An academic programme is a purposeful and structured set of learning experiences designed to enable studentsⁱⁱ achieve pre-specified outcomes, that is, what the student is able to do at the end of the learning experience. This coherent combination of learning experiences leads to a qualification (Van Wyk 1999: 80). The term 'curriculum' is sometimes used to refer to the set of learning experiences that make up a learning programme.

1.5.2 **Qualification**

A qualification is defined as the certification of the attainment of the learning outcomes of a particular learning programme (Van Wyk 1999: 81).

1.5.3 **Instructional offerings/Subjects/Courses/Modules**

Learning programmes are often made up of smaller units of learning referred to differently in different higher education institutions, for example, instructional offerings, subjects, courses or modules. This study uses the term that is prevalent in

the context in which it is being discussed and at other times, for the sake of brevity, it simply uses the term modules.

1.5.4 **Higher education**

While terms often used in the literature to indicate the area of education following secondary education include higher education, tertiary education, post-secondary education, this study uses the term higher education to refer to this area of study.

1.5.5 **University**

A university is an autonomous higher education institution located in the centre of society and organised in various ways depending on its geographic location and historical heritage. It creates, investigates, evaluates and conveys culture through its scientific research and teaching activity (Brzezinski 1997: 202).

1.5.6 **Technikon**

A technikon is defined as a higher education institution whose main educational task is to provide education and training in order to supply the labour market with middle-level and high-level personnel who possess particular skills and technological and practical knowledge that ensures that they practice their occupations effectively and productively (Department of National Education, National Education Policy Branch 1988: 22). The term 'technikon' is a uniquely South African term but as a higher education institution is similar to institutions in other countries such as the college of advanced education in Australia and what used to be the polytechnic in the United Kingdom, which emphasise vocational education and training (Chapter 2 provides discussion on this).

1.5.7 **Articulation**

Articulation in this study is viewed as the ability of an education system to allow students pursuing similar education and training programmes to move laterally and

vertically between different types of institutions offering similar and/or different level programmes in the same field/s.

1.5.8 **Library and/or information services**

The term library and/or information services, in this study, refers to library and information services as well as information services that facilitate the management and use of recordable information and knowledge (American Library Association 1992: 1). This term is, for the sake of brevity, abbreviated in certain places as LIS services.

1.5.9 **Library and/or information science**

The term library and/or information science, in this study, refers to library and information science/studies as well as information science/studies (that is, the discipline). While section 2.10.1 of Chapter 2 provides discussion on this discipline, it is useful to very briefly explain here that this discipline is generally concerned with recordable information and knowledge, and the services and technologies to facilitate their management and use (American Library Association 1992: 1). Library and/or information science is, again for the sake of brevity in this study, abbreviated in certain places as LIS while, as pointed out above, library and/or information services is abbreviated as LIS services.

1.5.10 **First level library and/or information science qualification**

A first level library and/or information science qualification is, in this study, viewed as a **beginning** library and/or information science qualification that affords an individual entry into the library and/or information services work environment where the work can be at the professional or at the paraprofessional level.

1.5.11 **First level professional library and/or information science qualification**

A first level **professional** library and/or information science qualification is, in this study, viewed as a beginning qualification that affords an individual entry into the library and/or information services work environment at a **professional** level.

1.5.12 **Library and/or information professional**

The library and/or information professional works at the professional level, engages in high level planning, development, design, evaluation and therefore needs to be competent in skills such as analysis, evaluation and synthesis (Kerkham 1988: 7). In the library context the professional is often referred to as a librarian. In other information contexts professionals are referred to as documentalists, records managers, archivists, information scientists and museologists.

1.5.13 **Library and/or information paraprofessional**

The library and/or information paraprofessional engages in the application of known techniques and principles, in the organisation and supervision of systems designed by professionals and therefore needs to be competent in skills such as comprehension, application and communication. In the library context the paraprofessional is commonly referred to as a library technician, or sometimes as a library assistant, and performs a supporting role alongside the professional librarian (Kerkham 1988: 7-8).

1.5.14 **Education and training**

‘Education’ generally has as its aim understanding and knowledge in a particular field while ‘training’ generally refers to the skills and techniques necessary to do a particular job (Stieg 1992: 6-7). Curricula generally encompass both the elements of education and training because while knowledge and understanding in a particular field “is indispensable, ...they alone do not make a competent professional. Similarly having the skills and techniques necessary to do the job are crucial, but practice needs

to be informed by a larger understanding, or it will be limited and mechanistic...” (Stieg 1992: 6-7). It is for this reason that, as far as is possible, this study makes reference to education and training in library and/or information science.

1.6 **Limitation of the study**

The length of the self-administered questionnaires used in this study as well as the nature of many of the questions (open-ended and delving) could possibly have discouraged people in the respective target populations from completing the questionnaires and could possibly have contributed to the relatively low return rate of questionnaires, especially among LIS services employers and past students. However, the researcher believes, as explained in Chapter 3, that the length of the questionnaires and the many open-ended questions were inevitable in the light of the nature of the topic of the research and the type of data the researcher needed to draw from the participants in the surveys. Furthermore, as discussed in Chapter 3, low response rates is an inherent disadvantage in the use of self-administered questionnaires in survey research. Despite the relatively low return rate of questionnaires from especially LIS services employers and past students which, as explained in Chapter three, precludes the possibility for generalisations to be made regarding the views of LIS services employers and past students on first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment, responses received were useful in revealing important views on this issue, and thus analysis and reporting here were regarded as being important.

1.7 **Delimitations of the study**

School libraries were not included in the survey of LIS services employers as they are generally considered to be a ‘special breed’. The Department of Education generally requires specialised training for librarians wishing to work in school libraries and this generally includes a teaching qualification together with a degree or diploma specialising in school libraries.

College libraries were also not included in the survey of LIS services employers as it was felt that this is a large and unwieldy sector that is still in the process of being consolidated into the higher education as well as the further education sectors in South Africa. The researcher was confident that academic libraries were more than adequately covered in the survey by the more established university and technikon sectors.

‘Odd’ first level LIS qualifications offered by individual institutions, specialist first level LIS qualifications and senior qualifications, such as honours and above, are not the focus of this study. The focus is on first level LIS qualifications commonly offered by LIS education and training departments or programmes throughout the country.

1.8 **Organisation of the thesis**

This thesis is divided into five chapters. Chapter 1 provides an introduction to the study by identifying the research problem and the general purpose of the study as well as outlining the significance of the study, its research objectives and research questions. It also provides definitions or explanations of terms as used in the study, discusses a limitation of the study as well as delimitations of the study, and explains how the thesis is organised. Chapter 2 provides a review of literature related to the study. The research methodology and data collection techniques employed in the study as well as how the data that was collected for the study was analysed are explained in Chapter 3. Chapter 4 presents findings based on analysis of the data collected for the study via the data gathering instruments. Chapter 5 discusses the main findings of the study in relation to the research questions and the objectives of the study and draws conclusions and makes recommendations based on these discussions. Appendices are placed after the list of works cited in the study.

1.9 **Summary**

This introductory chapter has identified the research problem with which this study is concerned and the general purpose of the current study. It has articulated the significance of doing a comparative study of first level library and/or information

science qualifications in South Africa and has set out the research objectives of the study as well as the research questions that had been generated in order to meet the research objectives. Definitions or explanations of terms as they are used in this study are also provided. This chapter also articulates a limitation of the study as well as delimitations of the study. Finally it explains how this thesis is organised. The next chapter provides a review of literature related to this study.

ⁱ In order to facilitate the write-up of this thesis, 'library and/or information services' is abbreviated in certain places as LIS services and 'library and/or information science' is abbreviated as LIS.

ⁱⁱ This study uses the term 'student' as opposed to the term 'learner' in the higher education context as the literature generally seems to indicate that while the term 'learner' is appropriate and in common use at the primary and secondary school levels as well as in adult education, the term 'student' seems to be more appropriate at the advanced level of education and training, for example, in universities, technikons and colleges.

CHAPTER 2:

Review of Related Literature

2.1 Introduction

First level library and/or information science (LIS) qualifications that are the focus of this study are located in the higher education sector of education generally. For this reason it is important to review related literature on the subject of higher education. This review will also be extended to include university and technikon education and training specifically, as these two types of higher education institutions are also a focus of this study. The literature review will also examine library and/or information science education (both locally and internationally) and various issues and themes associated with LIS education and training. While the previous chapter provided an introduction to the study, the review of related literature in this chapter will place the current study in its proper context and highlight the key issues that need interrogation.

2.2 Higher education

Terms often used in the literature to indicate the area of education following secondary education include higher education, tertiary education, post-secondary education, and even sometimes college education or university education. In fact many works on the subject of higher education are chiefly concerned with university education with many of them including the word 'university' in their titles. While Barnett (1990: 202-203) feels strongly that there are certain necessary conditions that an institution has to meet in order to justify the appellation 'institution of higher education', for the purposes of this study, the term higher education is used to indicate the area of education following secondary education. Brubacher (1978: 9) argues that the term "higher education is perhaps the most inclusive and generic one" to indicate this area of education. Higher education covers a wide diversity of types of institutions, such as, universities, polytechnics, technikons (in the case of South

Africa) and various types of colleges for example, colleges of advanced technology, teacher education colleges and many others.

Allen (1988: 20) points out that while the functions of teaching and research are common to almost all universities there are two contrasting views of the function of teaching in higher education that have surfaced and resurfaced over the centuries, that is, the liberal arts philosophy and the vocational philosophy. Liberal arts education, also referred to in the literature as liberal education or general education, aims to serve the needs of the individual. An individual's state of being educated is the main purpose of general education. It was the famous liberal arts philosopher J.H. Newman who expounded the virtues of liberal education in the book, *The idea of a university* which was first published in 1873. Today general education is usually provided by means of a general bachelor's degree that gives an individual a broad base of knowledge. Vocational education, on the other hand, aims to serve the needs of society: "Professional expertise should be developed not as a matter of idle curiosity but because of its enormous significance for the community; the nation needs trained manpower" (Allen 1988: 21).

The liberal arts philosophy generally finds its greatest support in the humanities while the vocational approach finds its support largely in the sciences and the professions. These two philosophies represent broad divisions of views that are difficult to reconcile. Each of the approaches has been dominant at various times and in various places in the world. For example, the liberal arts approach rose to prominence in both Britain and America in the late nineteenth century. The vocational approach seems to be in ascendance in many parts of the world today.

However, there have been attempts to make the two divergent philosophies clasp hands. Brubacher (1978: 80) explains that when students came from a limited leisure class, as in a traditional oligarchy, classical liberal education was satisfactory. But today, when most people work, as in a democracy, higher education will lead to maladjustment if it does not include some specialised training for earning a living. However, general education is still necessary today when one considers the student's future role as a citizen. In contemporary society citizens must be informed and be able

to comprehend, understand and debate issues that impact on the daily lives of individuals and on society in general. It would seem then that despite the divergent nature of these two views of higher education and which have competed with each other over the years, there is value for both in higher education today.

2.3 University education

A university is an autonomous institution located in the centre of society and organised in various ways depending on its geographic location and historical heritage. It creates, investigates, evaluates and conveys culture through its scientific research and teaching activity (Brzezinski 1997: 202). Brzezinski goes on to point out that this scientific and teaching activity must be morally and intellectually independent of political and economic authority. Most scholars believe that universities should be conditioned only by the relevant criteria of research and teaching efficiency (Gumanski 1997: 40-41). However, most branches of knowledge, but especially the empirical sciences, require considerable funding to sustain research and teaching. This means that in practice the “dependence of universities on various sponsors is so enormous that the postulate of total autonomy may only be realized under exceptional circumstances” (Gumanski 1997: 41). This has also been evidenced in countries where funding for universities is mainly from government and there is an ongoing ‘tug-of-war’ between universities’ desire for independence in the name of academic freedom and governments’ desire for universities to ‘deliver’.

The two divergent views of the function of teaching in higher education, that is, the liberal arts approach and the vocational approach discussed in section 2.2 apply in the university context as well. In fact these divergent views originated in the university context. As outlined above, this issue has been a subject of ongoing debate over the centuries and continues to date.

In more recent times, especially with the evolution of the technological society and the rise of market economies in the latter part of the twentieth century, universities have come under threat from other agencies such as extra-university media and employer-administered training programmes. Universities now have to compete with

numerous other agencies in the education and training arena (Bauman 1997: 48-49). The general argument however appears to be the argument by Brubacher (1978) that higher education and particularly general university education aims at intellectually empowering the graduate to stand on his/her own feet and field the changing demands of society. One could perhaps argue that this forms the basis for lifelong learning, a valued feature of general education that is reiterated many times in this review of related literature.

It is necessary at this point in this literature review to leave the general university scenario and look specifically at university education in South Africa to see how these international trends have interacted with local conditions.

2.4 University education in South Africa

The *University Act of South Africa* (Act 12 of 1916) formalised university education in the Union of South Africa by providing for the establishment of a federal examining university to be called the University of South Africa (Unisa), with headquarters in Pretoria. Unisa incorporated the various teaching university colleges scattered in different parts of the Union of South Africa. Gradually these colleges became independent universities and by 1951 the process of establishing independent universities was completed. By this time Unisa had become a fully-fledged correspondence university. In the 1960s additional universities were created and by the mid-1980s there were ten residential universities for whites in South Africa. The *Extension of University Education Act* (Act 45 of 1959) provided for the establishment of universities for Africans, coloureds and Indians in South Africa. The same Act prohibited whites from registering with universities for 'non-whites' and 'non-whites' from registering with universities for whites, except under certain circumstances (Behr 1984: 141,144,145).

The government, in entrenching its policy of separate development (apartheid) for the different race groups, viewed universities in South Africa as legal entities whose nature and functions are prescribed by law. Universities had no powers or rights other than those prescribed by law. They had no autonomy other than that granted to them

by the state for reasons of administrative efficiency (Bunting 1989: 399). While the government shared the internationally held view (discussed in section 2.3) that the main functions of universities were to disseminate knowledge through instruction of students in various academic disciplines, and to advance knowledge through research, according to the apartheid government and in keeping with its policy of separate development, these functions were to be exercised in a way that was relative to the cultural and value framework of specific population groups. This was a departure from international university trends where the autonomy of universities was valued. However, as pointed out earlier, there is the potential for this autonomy to be threatened by government especially when it is the main source of funding, as was the case in South Africa thus leading in many cases to tensions between universities' desire for independence and the government's desire to regulate universities.

Thus apartheid policies had created a higher education system in South Africa that was complex and discriminatory and by the beginning of the 1990s consisted of twenty-one universities, fifteen technikons and a host of colleges including teacher training colleges, agricultural colleges and colleges of nursing (Gultig 2000: 40).

South Africa's first democratic elections in 1994 signalled the beginning of changes in many sectors, including the higher education sector. This sector witnessed significant changes in the 1990s as a result of post-apartheid legislation as well as global and local changes in the economy (refer to sections 2.6 and 2.7). Post-apartheid legislation de-racialised universities and other institutions in the higher education sector.

In the immediate post-apartheid period that was characterised by a less regulated 'market' atmosphere, foreign donors and local industry poured money into education and training as education was seen as the 'engine' of growth. There was also a significant commitment on the part of the state to redressing apartheid inequalities. This was, in higher education, "defined largely as improving the status and quality of historically black universities and technikons" (Gultig 2000: 37).

Gultig goes on to point out that despite this rhetorical and, to some extent, fiscal commitment to redress, what has emerged is a “deregulated ‘freemarket’ in higher education” resulting in a widening of gaps in higher education. For example, while the historically advantaged white universities and technikons consolidated their positions as leading higher education institutions in the country, the historically disadvantaged black institutions are plagued by crises and are losing students in massive numbers. It is precisely this situation that subsequent changes in the higher education system in South Africa (discussed in sections 2.6 and 2.7) are attempting to address.

A further important change in South African higher education since the ‘opening up’ of the system has been the growth of private education as well as transnational education provision, which changes in higher education referred to above, are also attempting to regulate. Ironically, it is these attempts at regulation of the higher education system by the government in an attempt to achieve a more equitable and integrated higher education system that are being perceived by some, especially those from the historically advantaged institutions, as a threat to autonomy (refer to sections 2.6 and 2.7 for further discussion on this).

Thus university education in South Africa between 1916 and the present seems to have see-sawed from a situation of being tightly controlled by the apartheid state in the interests of its own policies to a brief period of deregulated ‘free market’ higher education in the immediate post-apartheid era, and to the current position of being regulated once again in the name of achieving a more equitable, integrated and efficient higher education system but where the autonomy of the university seems once again to be in jeopardy.

2.5 **Technikon education in South Africa**

Technikons in South Africa have their roots in technical colleges. In terms of the *Apprenticeship Act* (Act 26 of 1922) it was the responsibility of technical colleges to attend to the theory aspects of apprentice education and training throughout the country. In 1923 the *Higher Education Act* (Act 30 of 1923) declared certain technical

colleges to be places of higher education. In time these colleges came to offer the community courses other than those related to the theoretical aspects of apprentice training (Department of National Educationⁱ, National Education Policy Branch 1988: 5).

According to Behr (1984: 128) as a result of a growing shortage of skilled and high-level personnel to meet the needs of commerce and industry in the country the *Advanced Technical Education Act* (Act 40 of 1967) created a new type of institution that was intermediate between a technical college and a university. The new type of institution was called a college for advanced technical education (CATE). It would seem that this move was necessitated by commerce and industry needs for a level of personnel (explained by Behr above) that neither the universities nor the technical colleges had been producing.

While the CATEs shifted towards the higher education sector, technical colleges established themselves in what is generally referred to today as the further education and training sector (refer to section 2.6 for explanation on where this sector fits into the education and training hierarchy in South Africa). D'Almaine (1997: 435) explains that technical colleges in South Africa play a dual secondary/tertiary role by awarding national certificates such as the 'N3' which is regarded as being equivalent to matriculation, as well as by providing individuals with the knowledge and skills they need to enter specific trades or occupations.

The Van Wyk de Vries Commission of Inquiry into Universities which reported in 1974 put forward as one of its recommendations that universities and CATEs should enjoy free vertical development, but with a difference in focus and that CATEs should no longer be seen as part of a pyramid structure with the university at the apex. By the late 1970s the above recommendation was accepted (Department of National Education, National Education Policy Branch 1988: 7-8). This not only represented an important development in the history of what is now known as technikons but also, importantly for the purposes of this study, highlights the fact that these two types of higher education institutions have different foci. This difference in focus is further highlighted by the fact that the *Advanced Technical Education Amendment Act* (Act

43 of 1979) changed the name 'college for advanced technical education' to 'technikon' (Pittendrigh 1988: 193-194). The new name had been derived from the Greek word 'technike' that refers to anything related to technique or technology and serves as an important basis for the difference in orientation between universities and technikons (this issue is discussed below). Pittendrigh (1988: 231-232) explains that a hierarchy of qualifications unique to technikons and parallel to universities had evolved. Immediately this raises the issue of articulation between the two types of institutions, which is one of the major issues in this study and is picked up further in discussions in section 2.7 of this chapter as well as in the findings of this study in Chapter 4. Unfortunately at the time when these developments were taking place in technikons, as pointed out below, there seem to have been no clear guidelines for this type of articulation. However, as pointed out in section 2.7, there are current attempts to develop structures to facilitate articulation between different types of higher education institutions in South Africa.

By the early 1990s fifteen technikons had emerged nationally (Cooper 1994: 70-71). The *Technikons Act* (Act 125 of 1993) established technikons as degree-awarding institutions (Republic of South Africa 1993: 4). The *Higher Education Act* (Act 101 of 1997) firmly established technikons within the higher education sector (Republic of South Africa 1997: 18). Unfortunately both these pieces of legislation make no reference to the status of universities and technikons *vis-à-vis* each other except to imply that they are both part of the higher education sector and one is left to presume from official documents and other sources cited in this section that while they may develop parallel to each other they have different foci. Furthermore, both these pieces of legislation provide no guidelines on possible articulation between the two types of institutions. The silence on these issues in the above legislations adds to the confusion regarding university and technikon LIS education and training referred to in the introduction to this study. It has only been subsequent changes in higher education to bring about a more integrated higher education system in South Africa, which has begun to address these issues. It should be noted that as had been the case with the universities, apartheid had been deeply entrenched in the technikon system as well.

A technikon is defined as a higher education institution whose main educational task is to provide education and training in order to supply the labour market with middle-level and high-level personnel who possess particular skills and technological and practical knowledge that ensures that they practice their occupations effectively and productively (Department of National Education, National Education Policy Branch 1988: 22). While this definition was formulated in 1988, the fact that there is no evidence of a revision of this definition in subsequent documentation and also bearing in mind that this definition is in keeping with the reason why technikons (or CATES as they were initially known) were established leads one to assume that the definition still applies today. This definition is important in that it encapsulates the basis of the difference in orientation between universities and technikons. In the context of this definition technology or technological knowledge is directly related to the handling of a task or the solution of a problem as opposed to scientific knowledge which refers to knowledge that is “pursued and created within the context of a particular discipline by a community of scientists in accordance with a shared methodological practice and set of scientific values” (Department of National Education, National Education Policy Branch 1988: 12, 22). The distinction between these two concepts (science and technology) makes for a clear distinction between the fields of the technikon and the university:

The technikon concentrates on (a) training in and practice of technology (including development), and (b) the specific side of the spectrum of vocational preparation [that is, preparation for specific occupations]. The university concentrates on (a) training in and practice of science [in the broad sense of the word which includes all scholarly activities] (including research), and (b) mainly the general side of the spectrum of vocational preparation. (Department of National Education, National Education Policy Branch 1988: 22-23)

This distinction highlights that there is indeed a place in the higher education system for different types of institutions putting out products with different orientations in knowledge and skills that are required in the work environment. It is not practically possible for one individual or for that matter one institution to do for example, basic research, applied or development work and application of established techniques. It is

also precisely for this reason that co-operation and articulation between the different types of institutions are crucial. Furthermore, there is no absolute dividing line between science and technology. And for this reason again articulation is important. It was pointed out as early as 1988 that there can be “cross-flow mechanisms [articulation] between technikon and university with the necessary reciprocal recognition of qualifications” (Department of National Education, National Education Policy Branch 1988: 23). Unfortunately, as pointed out above, until recently there had been no formal structures or guidance to facilitate this articulation.

In terms of the definition of technikons provided earlier and the general philosophy of technikon education and training *vis-à-vis* university education and training discussed subsequently, satisfying the technological and occupational needs of the work environment is fundamental to the technikon qualification. In order to ensure that the technological and occupational needs of the work environment are continually met, technikon qualifications are often the result of constant interaction between relevant industries and the technikon through liaison committees, advisory boards and co-operative educationⁱⁱ or experiential learning programmes. The corpus of scientific knowledge is not directly relevant to technikon education and training as is the case in university education and training where it forms the basis of general education or liberal arts education referred to in sections 2.2 and 2.3. This distinction between the technological and occupational focus of technikon education and training with implications of perhaps too narrow a focus which might lead to difficulties of coping with new demands in society in the future as opposed to general university education with its focus on life-long learning, is a crucial issue to the current study as it is a fundamental difference between the two types of education and training.

The main issues then regarding technikon education and training in South Africa are:

- While technikon education and training is located in the higher education sector with university education and training, its focus is different in that while the former focuses on specific technological and vocational preparation the latter focuses on general education and lifelong learning. This has serious implications for the relevance of each of these types of qualifications for the work environment in general and for the LIS services work environment in

particular and thus relevant to the current study which is attempting to do a comparative study of university and technikon first level LIS qualifications and their relevance to the LIS services work environment; and

- While the value of articulation between universities and technikons is evident, there has been (until recently) a lack of guidelines on this type of articulation.

At this point in this literature review it is appropriate to look at recent major changes in higher education in South Africa and how these changes have impacted on the traditional cultures and values of both university and technikon education and training in South Africa as discussed in sections 2.4 and 2.5.

2.6 Recent changes in higher education in South Africa

The National Commission on Higher Education (NCHE), constituted soon after the new democratic government came to power in 1994, was tasked with the responsibility of looking into the restructuring of the higher education sector in South Africa. The NCHE's *Policy framework for higher education transformation* (1996) report that formed the basis of the 1997 *Education white paper 3 : a programme for the transformation of higher education* and the subsequent *Higher Education Act* (Act 101 of 1997), stated that the system of higher education in South Africa was "fundamentally flawed by the inequities, imbalances and distortions deriving from its history and present structure" and therefore had to be reshaped to meet pressing national needs and to respond to a context of national and global opportunities and challenges (National Commission on Higher Education 1996: 1).

The 1997 *Education white paper 3 : a programme for the transformation of higher education* that was based on the NCHE report highlighted the following as key features in the proposed framework for the transformation of higher education in South Africa:

- There must be increased and broadened participation by students from historically marginalised groups;

- Higher education must be responsive to societal interests and needs (this has serious implications for general university education especially in the humanities and social sciences which has traditionally focussed on empowering the individual intellectually rather than responding to specific societal needs); and
- There must be cooperation and partnerships in the governance of higher education in order to reduce duplication and to strive for greater efficiency in higher education. (Department of Education 1997: 10)

The White Paper also stressed that central to the transformation process was that higher education must be planned, governed and funded as a single national co-ordinated system in order to overcome the fragmentation, inequality and inefficiency which are the legacy of the past. It recognised universities, technikons and various types of colleges (for example, teacher education, nursing, agricultural, veterinary, forestry, police and military colleges) as three types of institutions offering higher education programmes. It saw technical colleges as part of the proposed further education sector.

The White Paper proposals for the transformation of higher education in South Africa were legislated through the promulgation of the *Higher Education Act* (Act 101 of 1997). This Act also established the Council on Higher Education (CHE) to spearhead this transformation process (Republic of South Africa 1997: 10).

While in the past university, technikon and college programmes were regulated by separate qualification frameworks that led to impermeable boundaries between sectors, the Ministry of Education endorsed, via the above Act, the principle that a single co-ordinated qualifications framework should be developed for all higher education qualifications in line with the National Qualifications Framework (NQF).

The *South African Qualifications Authority Act* (Act 58 of 1995) established a statutory body, the South African Qualifications Authority (SAQA) that has as its main function the task of overseeing the development and implementation of the National Qualifications Framework (Republic of South Africa 1995: 6). All approved

and registered South African education and training qualifications are to be housed within this Framework in the form of specific descriptions of learning outcomes agreed by all major stakeholders in the particular area of learning (South African Qualifications Authority 1997: 2).

Learning outcomes refer to what the learner is able to do at the end of the learning experience. The NQF requires a paradigm shift to be made from a focus on 'inputs' as was largely the case with the education system in the past, to a focus on 'outputs'. With outcomes-based education (OBE) it is the outcomes that must drive the learning programme or curriculum and not the content, that is, anything included in the programme must support the demonstration of a particular outcome (*Getting to grips with the National Qualifications Framework (NQF) 1997: 2-5*). This too has implications for traditional university education and training that has valued its autonomy and is not accustomed to being directed in this way.

According to SAQA (2000: 8) qualifications housed in the NQF must include specific as well as critical cross-field outcomes (commonly known as critical outcomes). While specific outcomes refer to contextually demonstrated knowledge, skills, values and attitudes for particular learning programmes and qualifications, critical outcomes refer to broad and generic outcomes applicable to all kinds of learning programmes and qualifications and are seen as critical for the development of the capacity for life-long learning in learners, for example, the ability to identify and solve problems, using critical and creative thinking, to work effectively with others as a member of a group and to communicate effectively.

The NQF allows for learners to earn credits towards national qualifications through a range of providers of learning such as schools, universities, technikons, colleges as well as on-the-job training and even through the recognition of learning that has happened through practical experience. The single qualifications system will streamline the current array of qualifications and integrate traditional secondary education, industry training and tertiary education into a seamless system (*Getting to grips with the National Qualifications Framework (NQF) 1997: 3*). A national quality assurance system, comprising of Education and Training Quality Assurance bodies

(ETQAs), will ensure that the standards housed within the NQF in the form of outcomes are implemented. Standard Generating Bodies (SGBs) established in the various areas of learning are required to submit standards and qualifications to SAQA via National Standards Bodies (NSBs) that have been set up in twelve organising fields. The Higher Education Quality Committee (HEQC) has been established to function as an ETQA in the higher education sector.

A key feature of the NQF, and of particular significance for higher education, are the eight levels of learning through which a learner can progress (refer to *Figure 1*). Level one includes nine years of compulsory schooling bringing the learner up to Grade Nine, as well as Adult Basic Education and Training (ABET) courses leading to a General Education and Training Certificate. Levels two, three and four lead to a Further Education and Training Certificate either through a further three years of optional secondary schooling bringing the learner up to matriculation, or through further education and training courses. Levels five to eight cover the higher education sector and include qualification types ranging from national certificates to doctorates (South African Qualifications Authority 2000: 11).

Figure 1

NQF Level	Band	Qualification Type
8	Higher Education and Training	• Post-doctoral research degrees
7		• Doctorates
6		• Masters' degrees
5		• Professional qualifications
Further Education and Training		Certificate (FETC)
4	Further Education and Training	National certificates
3		
2		
General Education and Training		Certificate (GETC)
1	General Education and Training	Grade 9 National certificates ABET

(South African Qualifications Authority 2000: 11)

It is important to point out that these levels of learning, especially those in the higher education and training band have been and still are the subject of much debate among stakeholders. They have already gone through a number of changes and are likely to undergo further changes in the future. For example, the *New academic policy for programmes and qualifications in higher education : discussion document* (Council on Higher Education 2001) discussed in section 2.7 proposes four sub-levels within level eight of the NQF to accommodate various qualification types at this level.

The NQF has been received with mixed reactions from various sections of society. However, despite the mixed reactions, the basic principles and objectives of the NQF have been accepted across the political and ideological divide as the NQF is viewed largely as being part of the broader process of South Africa's political, social and economic transformation. SAQA (1997: 3) emphasises the continuing participative and collaborative nature of the NQF that allows for collective and individual contributions to a "flexible, diverse but coherent framework".

It is very much in this spirit of constructive criticism that higher education practitioners, especially from the university sector, have articulated their concerns and have challenged aspects of the NQF. For example, the literature (Bellis 1995: 31; Geber and Munro 1999: 30; Van Wyk 1999: 73) reveals fear of a drift towards vocationalism, undesirable standardisation arising from the application of prescriptive framework requirements, a negative impact on the diversity of higher education, especially university programmes as a result of a rigid framework, and that the NQF's emphasis on outcomes is generally antithetical to the goals and ethos of university education. Lockett (1999: 2000) expresses concern that while the practice of outcomes-based education (OBE) is compatible with the technical paradigm it is generally not with the human and social sciences that are not vocational disciplines. University academics have generally been driven by the imperatives of teaching and research and not by functional ends outside the university and therefore the requirement that academics should consult with business, employers and other stakeholders about what and how to teach is threatening to the traditional, discipline-based *raison d'être* of universities. Lockett thus asks for the SAQA-NQF system not

to become a bureaucratic machine for prescription and surveillance and to be sensitive to the “lifeworlds” of those involved in the educational process.

SAQA believes that because of the participative and flexible nature of the NQF these and other concerns can be satisfactorily addressed. The researcher wishes to point out that this has indeed happened, for example, SAQA has accepted that higher education institutions may register whole qualifications on the NQF and not only unit standards (the ‘building blocks’ of a learning programme) as was initially required and this has gone some way in addressing some of the concerns expressed above. A further example is that some of the concerns of the South African University Vice-Chancellors’ Association (SAUVCA), successor to the old Committee of University Principals (CUP), expressed in its review of the NQF, have been accommodated in the *New academic policy for programmes and qualifications in higher education : discussion document* (2001) discussed in section 2.7.

The discourse of challenging aspects of the NQF in the interest of traditional higher education cultures and values, that has been raging in the literature, does not tend to feature voices from the technikons. It is the opinion of the researcher (who is currently a technikon academic) that a possible reason for this could be that it is the universities that are currently feeling the strain of the imposition of the SAQA-NQF system on their traditional cultures and roles. The technikons since their inception have been subjected to standardisation of qualifications and quality assurance procedures (refer to discussion under 2.7). In fact, some technikon academics are likely to view the new system as a welcome change to past standardisation procedures especially that it now enables the university and technikon systems to converge in one unified framework. Much of what is now being imposed on higher education practitioners and comes as a culture shock to university academics, has been practised by technikon academics for years, for example, a programme-based approach to teaching, consulting with employers and other stakeholders on curriculum development, programmes being relevant and responsive to the needs of wider society, and so on. This makes it easier for the technikon environment to adapt to the new system as compared to universities.

Traditionally curriculum development at universities has been discipline-based with departments having a high level of autonomy in designing and promoting new programmes and qualifications. Under the new system there is a shift from a disciplinary approach to higher education to “a programme-based higher education system” (Department of Education 1997: 17). This means a shift from disciplinary degrees to inter-disciplinary programmes that are presented across departments, faculties and even institutions. The proposed new funding formula for higher education is based on programmes (Department of Education 1997: 48). Furthermore, programmes are required to be designed to “improve the responsiveness of the higher education system to present and future social and economic needs, including labour market trends and opportunities” (Department of Education 1997: 17-18). As mentioned above, technikons have been accustomed to these practices. Universities, however, need to make the shift from a closed to a more open system that is sensitive to the demands of the market place and other emerging needs.

Some of the main issues emanating from the discussion on **Recent changes in higher education in South Africa** include:

- All higher education qualifications are now housed in a single co-ordinated qualifications framework. This has important implications for co-operation and articulation between different types of higher education institutions, especially universities and technikons. Such a framework allows for the facilitation of articulation procedures, which as pointed out in the discussion in section 2.5 had not been developed before. The issue of articulation between universities and technikons is one of the issues being looked at in this study; and
- Universities, more than technikons, are feeling the impact of recent changes in higher education on their traditional cultures and values as technikons have been subjected to regulation in the past while universities have valued their autonomy but now have to make the shift from a closed to a more open system that is sensitive to the demands of the market place and other emerging needs.

In January 2000 the Minister of Education requested that the Council on Higher Education (CHE) review the institutional landscape (the size and shape) of the higher education sector. This landscape was largely dictated by the geo-political agenda of apartheid planners. The Minister requested advice on the reconfiguration of this landscape, as institutional restructuring was necessary to ensure long-term affordability and sustainability of the higher education system. The Size and Shape Task Team of the CHE took as its point of departure the 1997 *Education white paper 3 : a programme for the transformation of higher education* in which the vision for the transformation of the higher education sector was articulated. Central to this vision was the establishment of a single, nationally co-ordinated system of higher education that would meet the learning needs of individual citizens from a diversity of backgrounds as well as the reconstruction and development needs of South African society and economy (Council on Higher Education, Size and Shape of Higher Education Task Team 2000: 1, 3). It has already been mentioned in section 2.6 that the development of a single, nationally co-ordinated system of higher education is an issue that is relevant to this study as such a system allows for the facilitation of articulation between different types of higher education institutions such as universities and technikons, as will be seen in discussions on the proposed *New academic policy* in this section.

Among the many proposals put forward by the CHE Task Team in its June 2000 report (Council on Higher Education, Size and Shape of Higher Education Task Team 2000) to the Minister, was the proposal relating to the need for differentiation and diversification of the higher education system and which is of relevance to the current study. The report argued that one of the reasons why differentiation and diversity are essential in higher education is that nothing is gained if all institutions have exactly the same mandates and missions and seek to be the same in all respects (which the researcher agrees with because as pointed out in section 2.5 there is indeed a place in the higher education system for different types of institutions putting out products with different orientations in knowledge and skills that are required in the work environment). To this end the CHE Task Team report suggested a range of

institutional types with different mandates based on different orientations and foci and argued that this is necessary to achieve the diversity of social and educational goals, purposes, roles and outcomes. This has direct relevance to the current study as institutional types designated to universities and technikons would have a direct bearing on the types and levels of qualifications each type of institutions may offer. Institutional types would determine the types and levels of LIS qualifications that universities and technikons may offer and perhaps thus resolve the current lack of clarity regarding the relationship between university and technikon first level LIS education and training, especially with regard to degree qualifications.

A further issue raised by the CHE Task Team report is that while differentiation and diversity must be a principal feature of a reconfigured higher education system, articulation mechanisms must exist to ensure that the system is highly integrated. This is particularly significant in the light of the fact that as pointed out in section 2.5, prior to this there has been a lack of formal structures to facilitate articulation between different types of institutions, an issue being looked at in the current study in the context of LIS qualifications. The proposed *New academic policy* discussed later in this section addresses precisely this issue of articulation.

A further point that needs to be made is that while higher education institutions, and universities particularly, have valued their autonomy and traditionally had been driven largely by the imperatives of teaching and research, recent developments in higher education being outlined in this literature review point to much eroding of this autonomy as a result of central government steering of higher education to meet social, economic and political imperatives of a post-apartheid South Africa. The CHE Task Team report 'justifies' this 'steering' as being necessary to achieve a more rational landscape than the incoherent, wasteful and unco-ordinated higher education system inherited from the past.

The Education Ministry's response to the advice provided by the CHE Task Team report appeared in February 2001 in the form of the *National plan for higher education*. The National Plan provides the framework and mechanisms for the restructuring of the higher education system to achieve the vision and goals for the

transformation of the higher education system outlined in the 1997 *Education White Paper 3 : a programme for the transformation of higher education* (Ministry of Education 2001).

The Ministry agrees with the CHE that a differentiated and diverse higher education system is essential to meet the transformation goals of the White Paper. It however, does not support the CHE proposal that differentiation and diversity should be achieved through structural differentiation between different institutional types based on a distinction between teaching and research institutions. It quite rightly points out that there is the danger that such structural differentiation introduces an element of rigidity, which will preclude institutions from building on their strengths and responding to social and economic needs in a rapidly changing regional, national and global context. The Ministry proposes instead that institutional diversity should be ensured through mission and programme differentiation based on the type and range of qualifications offered. The programme mix at each institution will be determined on the basis of its current academic profile as well as the relevance of this profile to the institution's location and context and its responsiveness to regional and national priorities. The Ministry of Education has recently released the document *Approved academic programmes for universities and technikons : 2003-2006* that stipulates the programme mix for higher education institutions and interestingly, it has called for a review of programmes that are duplicated in particular regions (Ministry of Education 2002), for example, LIS programmes that are offered at the University of Natal, the Durban Institute of Technology (DIT) and the University of Zululand in the province of KwaZulu Natal. Such a review forces LIS departments or programmes to look closely at their curricula for overlap or duplication and possible rationalisation here as well as for areas of specialisation that need to be retained and strengthened. The latter is also an issue being looked at by the current study in view of the present government's current drive toward rationalisation in higher education.

A further point raised by the Ministry of Education in its National Plan and which is of relevance to this study is that the programme distinction between technikons and universities has been eroded in line with the White Paper's suggestion of a loosening of boundaries between different institutional types. The result of removing the

programme distinction and allowing degree-granting rights to technikons has seen a slow move towards uniformity between universities and technikons with technikons increasing their degree offerings at both the under-graduate and post-graduate levels. According to the Ministry this has led to a number of technikons requesting a change in status to universities of technology. The Ministry argues that the pressure for this change in status comes at a time when technikons are contributing significantly to reversing a trend of higher education enrolments which has been skewed in favour of universities and which the NCHE suggested needed to be addressed in the interest of human resource needs of the country. The Ministry is concerned that the rapid erosion of the programme differentiation between universities and technikons would be detrimental to institutional diversity. It would also be detrimental to the capacity of the higher education system to meet the human resource development priorities of the White Paper, especially the goal of expanding career-oriented programmes, in particular, at certificate and diploma levels, and in science, engineering and technology. On the basis of this concern, the Ministry proposes to continue to recognise, in the short-to-medium term, the broad function and mission of universities and technikons as two types of institutions offering different kinds of higher education programmes. Thus, in planning for at least the next five years, the Ministry will continue to regard:

- technikons as institutions whose primary function is to provide career-oriented programmes at the diploma level; and
- universities as institutions which offer a mix of programmes, including career-oriented degree and professional programmes, general formative programmes and research masters' and doctoral programmes.

(Ministry of Education 2001: 52)

In the light of discussions in section 2.5 that there is indeed a place in the higher education system for different types of institutions putting out products with different orientations in knowledge and skills that are required in the work environment, the researcher believes that this is a sound decision, especially if the human resource requirements of a developing country such as South Africa requires technikon trained diplomates. The researcher believes that technological and vocational oriented education and training has been a strength of technikons and it should continue to

build on this strength especially at the diploma level instead of focusing on post-graduate programmes and thus contributing to the current confusion regarding the relationship between university and technikon degree qualifications (particularly in LIS). Unfortunately, the above decision by the Ministry of Education aggravates the uncertainties regarding the status of technikon degree qualifications, which is yet another issue being looked at by the current study but with regard specifically to technikon first level LIS degree qualifications. However, the Ministry's decision does signify that, for the short-to-medium term at least, the traditional purpose of technikon education and training, as discussed in section 2.5, is maintained.

A further pillar in the process of building a higher education system that attempts to fulfil the goals of the 1997 *Education white paper 3 : a programme for the transformation of higher education* is the *New academic policy for programmes and qualifications in higher education : discussion document* (2001). The Department of Education in late 1999 requested the CHE to take on the task of developing a new academic policy on the processes of registration and accreditation of higher education qualifications and programmes in the context of the NQF. In December 2001 the CHE handed over its report to the Department of Education for publication as a discussion document.

Currently the policies on which the CHE relies, as an interim measure, to determine accreditation and approval of programmes and qualifications (albeit in a flexible and facilitatory manner) are policy documents that had been conceptualised within the apartheid framework. The sector-based approach of these policy documents to the provision of programmes has resulted in different approval mechanisms for new programmes and qualifications. For example, in the case of universities, the decision whether or not to offer a particular programme has largely been a matter of institutional autonomy. The introduction of a new programme for technikons requires extensive pre-consultation within the technikon sector in order to reach agreement on a commonly acceptable structure for the programme concerned. Individual technikons are granted permission to offer an approved programme on the basis of accreditation and evaluation by the Certification Council for Technikon Education (SERTEC). Furthermore, this inherited system made little provision for articulation across the

different institutional types. Once the proposed New Academic Policy (NAP) is finalised and approved it will replace the current policy documents and will provide the basis for the registration, accreditation and funding of all higher education qualifications and programmes and will apply to universities, technikons and colleges in both the public and private sectors (Council on Higher Education 2001: 5-9).

The qualifications framework for higher education which is presented in the NAP document (refer to *Figure 2*) is located within the SAQA-NQF system which has already been established for all education and training sectors in the country (refer to *Figure 1* and discussion on the NQF under section 2.6). In developing this framework it is assumed that “learning achievements can be ‘measured’ in terms of levels and credits on a qualifications framework ... and that this will facilitate the articulation of qualifications on the framework”, thus enabling greater mobility and progression of students through the framework (Council on Higher Education 2001: 29). Refer to *Figures 3, 4, and 5* for brief explanations of ‘items’ on the framework and on how this mobility and progression is facilitated on the framework.

It must be emphasised that this proposed higher education framework is currently under discussion and is likely to undergo changes before a final version is approved and adopted. In fact even after adoption, like with the NQF itself, there could still be changes as structures for education and training in South Africa are very much in a state of transition. It is for this reason that structures such as the proposed higher education framework need to be looked at critically and commented on in the interest of strengthening them. However, the basic principles governing the development of the proposed higher education framework are likely to remain the same as these principles are meant to give effect to the policy guidelines set out in the White Paper and in the National Plan both of which have been referred to in this section and section 2.6. It is with this in mind that the articulation aspect of the proposed NAP that is significant to this study is discussed, even though the document is still under discussion.

Figure 2

A Qualifications Framework for Higher Education

NQF Levels	HE Sub-levels	(Cumulative minimum totals) & minimum credits per qualification	General Vertical articulation		Articulation Horizontal & diagonal articulation	Career-focused Vertical articulation	
8	PG 4	(1020) 360	Doctor of Philosophy (360 @ PG4)			Doctor of Philosophy, Professional Doctorate (360 @ PG4)	
8	PG 3	(660) 180	Research Master's Degree (120 @ PG3)	Structured Master's Degree (60 @ PG3)		Research Master's Degree (120 @ PG3)	Structured Master's Degree (60 @ PG3)
8	PG 2	(600) 180/ 120		Master's Diploma (120 @ PG2)	Master's Certificate (72 @ PG2)	Master's Diploma (120 @ PG2)	Professional Master's Degree (180 @ PG2)
					(articulation credits)		
8	PG 1	(480) 480/ 120	Bachelor Honours Degree (120 @ PG1)	General Postgraduate Diploma (120 @ PG1)	Postgraduate Certificate (72 @ PG1)	Advanced Career-focused Bachelor's Degree, [e.g.B Tech] (120 @ PG1)	Career-focused Postgraduate Diploma (120 @ PG1)
					(articulation credits)		
7		(360) 360/ 120	General Bachelor's Degree (120 @ 7)		Graduate Certificate (72 @ 7)	Career-focused Bachelor's Degree (120 @ 7)	
					(articulation credits)		
6		(240) 240	General Diploma (90 @ 6)		(articulation credits)	Career-focused Diploma (90 @ 6)	
5		(120) 120			Foundation Certificate (72 @ 5)	Career-focused Certificate (72 @ 5)	
4		(120) 120	FETC (72 @ 4)		Bridging Certificate (72 @ 4)	FETC (72 @ 4)	

(Council on Higher Education 2001: 30)

Figure 3

Levels on the NQF

NQF Levels	HE Sub-levels
8	PG4
8	PG3
8	PG2
8	PG1
7	
6	
5	
4	

SAQA has assigned 4 levels on the NQF to Higher Education, Levels 5 to 8, with Level 8 being open-ended. The 1st column in the framework specifies the NQF levels for HE. After consultation with SAQA on the need for more levels, the CHE proposes that our current qualifications can best be accommodated within the 4 levels by dedicating Levels 5 to 7 to undergraduate study, and the open-ended Level 8 to postgraduate study, which requires 4 sub-levels: postgraduate sub-levels 1 – 4. NB The exception to the rule is the 480 credit Advanced Bachelor's Degree which, although an undergraduate degree, is pegged at Level 8: PG1.

Traditionally, HE qualifications have been structured according to years of study in roughly a 7 year plus structure. This traditional structuring is captured in the 2nd column headed **HE Normative levels & Sub-levels**, which shows how the traditional qualifications structure has been accommodated through the creation of postgraduate sub-levels in the open-ended Level 8.

Level 4 represents the highest level of the Further Education and Training Band, and is not part of the Higher Education and Training Band. If access to HE is to be widened, it is important to ensure the articulation of qualifications between Levels 4 and 5.

(Council on Higher Education 2001: 31).

Figure 4

Three Columns or Tracks on the Qualifications Framework

NQF Level	HE Sub-levels	(Cumulative min totals) & minimum credits per qualification	General Vertical articulation	Articulation Horizontal & diagonal articulation	Career-focused Vertical articulation
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The General Track contains those qualifications which traditionally have been offered only by universities, and which are based on academic, discipline-based and cognitive theories of learning. The qualification designators, *of Arts, of Science, of Social Science* and *of Commerce* may be used only for degrees in this track.

The Articulation Column is a unique feature of the South African HE qualifications framework, designed to enable *horizontal and diagonal articulation* between qualifications on the framework, (as well as the normal *vertical articulation*). This will facilitate meaningful articulation between qualifications in the two different tracks, for example, by allowing a learner with a BSc at Level 7 on the General Track to first acquire a Graduate Certificate at Level 7 in the Articulation Column, before entering a Level 8 programme in the Career-focused Track. The Articulation Column is a curriculum 'space' where learners who do not meet the full entry requirements for their target programmes can 'catch up' without having to 'go back to the beginning again, and where RPL can be implemented. Depending on their learning needs and previous qualifications, learners may be required to earn either specified articulation credits or whole certificates in the Articulation Column, prior to admission to target mainstream programmes.

The Career-focused Track contains the qualifications traditionally offered by technikons, and the professional qualifications traditionally offered by universities. The term *Career-focused* is used to broaden this category to include specialised programmes with a specific career focus that are not necessarily linked to a professional or statutory body. Qualifications in this track are based on vocational, career-based or professional understandings of learning, giving them a more applied, practical and market-orientated focus. Qualification designators used for degrees in the Career-focused Track are open-ended and are used to signify the professional or career focus, e.g. a *Bachelor of Engineering, of Technology, of Education, of Social Work, of Nursing, of Agriculture*, etc.

(Council on Higher Education 2001: 32).

Credit-ratings

NQF Level	HE Sub-levels	(Cumulative minimum totals) & minimum credits per qualification
8	PG 4	(1020) 360
8	PG 3	(660) 180
8	PG 2	(600) 180/ 120
8	PG 1	(480) 480/ 120
7		(360) 360/ 120
6		(240) 240
5		(120) 120
4		(120) 120

The CHE proposes that the full-time equivalent taught /coursework academic year be calculated at 30 weeks and the average full-time equivalent student be expected to work a 40-hour week, giving a total of 1 200 study hours p.a. On the SAQA credit-rating system of 10 *notional* study hours per credit, the minimum number of credits per taught academic year is 120. 120 credits is also the SAQA minimum requirement for a whole qualification. Thus we have allocated a minimum of 120 credits per level for Levels 5 to 8: PG1.

The CHE proposes that the full-time postgraduate research-based academic year be calculated at 45 weeks, giving a minimum credit-rating of 180 credits per academic year. This means that Master's degrees are credit-rated at a minimum total of 180 credits and Doctoral degrees at 360 credits (2 x 180).

Cumulative minimum totals are given in brackets, e.g. at the end of Level 7 a student will have earned a minimum cumulative total of 360 credits.

Credit-ratings for qualifications are determined by the total minimum number of credits for the whole qualification and by the minimum number of credits to be attained at the qualification's exit-level. In this example, the General Diploma requires 240 credits in all, of which 90 are to be attained at Level 6.

(360) 360/ 120	General Bachelor's Degree (120 @ 7)	Graduate Certificate (72 @ 7)
		(articulation credits)
(240) 240	General Diploma (90 @ 6)	(articulation credits)

In these examples the General Bachelor's Degree requires 360 credits in all, of which 120 must be at Level 7, whilst the Graduate Certificate requires 120 credits in all, of which 72 must be at Level 7.

Figure 5

(Council on Higher Education 2001: 33).

The proposed NAP places all higher education qualifications in two (general and career-focused) learning pathways or tracks, which are separated by a central articulation column designed to facilitate articulation between qualifications in the two tracks (refer to *Figure 4*). The careful designing of the two tracks in the proposed higher education framework is very much in keeping with the National Plan's position on the integration of higher education sectors (such as university and technikon sectors) but at the same time maintaining differentiation and diversity in programme offerings that have been discussed earlier in this section.

Very importantly for the issue of articulation of LIS programmes in this study, the NAP document (Council on Higher Education 2001: 37-38) stresses, that while the proposed higher education framework aims to facilitate articulation (refer to *Figure 2* and *Figure 4*), students should not assume that progression to specific programmes is ever guaranteed. Although the framework provides general guidelines and parameters for articulation, the receiving institution will determine specific articulation requirements, as it remains the right and responsibility of higher education institutions to determine their own admission requirements and the entry requirements for particular programmes.

The NAP document further points out that it is important to understand that the pegging of two qualifications at the same NQF level does not mean that they are equal or even equivalent. It simply means that the programmes leading to these qualifications engage with comparable levels of complexity of learning. This is why the concept of horizontal and diagonal articulation (refer to *Figure 2* and *Figure 4*) is necessary to facilitate articulation between programmes and qualifications that may differ widely in nature and scope. In such cases further learning might be required before a learner's exit learning articulates with the entry requirement of a target programme, and vertical progression on the framework may be resumed. This concept has important implications for the articulation of LIS programmes between university and technikon education and training that, as pointed in section 2.5, have different foci.

Thus in terms of the proposed higher education framework (refer to *Figure 2*), the four library and/or information science qualifications that are focused on in this study would be pegged at the following NQF levels: the National Diploma: Library and Information Studies (offered at technikons) would be pegged at NQF level 6 on the career-focussed track; the Bachelor of Technology: Library and Information Studies (offered at technikons), the Post-graduate Diploma in Library and/or Information Science (offered at universities) and the Bachelor of Library and Information Science/Bachelor of Information Science (offered at universities) would all be pegged at NQF level 8, post-graduate level 1 (PG 1) on the career-focused track. One also needs to take note that there are articulation credits to be earned (on the terms of the receiving institution as pointed out by the proposed NAP) if one wants to, for example, move from the National Diploma (NQF level 6) to any of the three NQF level 8, PG 1 library and/or information science qualifications.

It makes sense that the three-year LIS technikon National Diploma is pegged lower than the four-year LIS qualifications. However many in the LIS services profession are likely to disagree with the university and technikon four-year qualifications being pegged at the same level as there is a distinct difference in the foci of these two types of education and training. However, the proposed NAP makes it quite clear that even though, for example, the B.Tech.(LIS), Post-graduate Diploma in Library and/or Information Science and B.Bibl./B.Inf. may all, in terms of the proposed higher education framework, be pegged at NQF level 8, PG1, the three qualifications are not necessarily equivalent. The proposed NAP maintains that qualifications pegged at the same NQF level can be different in function and purpose, and are therefore not equivalent, but can be pegged at the same level with similar credit ratings because the programmes leading to the qualifications engage with comparable levels of complexity of learning. It is precisely for this reason that the proposed NAP has the concept of horizontal and diagonal articulation, that is, to facilitate articulation between programmes and qualifications that may differ widely in nature and scope. This, for the researcher, shows that the proposed framework recognises the difference in foci of, for example, the technikon B.Tech.(LIS) and the university B.Bibl./B.Inf. even though both might be pegged at the same level.

In summary, the important issues emanating from discussions in this section are as follows:

- The National Plan views institutional differentiation and diversity as a principal feature of a reconfigured higher education system and that this should be ensured through programme differentiation based on the type and range of qualifications offered;
- The traditional purpose of technikon education and training *vis-à-vis* university education and training (as discussed in section 2.5) is being maintained in the short-to-medium term in the interest of institutional differentiation and diversity as well as the human resource needs of the country;
- While the proposed higher education framework provides general guidelines and parameters for articulation, according to the proposed NAP, the receiving institution will always determine specific articulation requirements, as it remains the right and responsibility of higher education institutions to determine their own admission requirements and the entry requirements for particular programmes; and
- Education and training structures such as the proposed higher education framework are very much in a state of transition and therefore when applying LIS qualifications to this framework one needs to bear this in mind.

2.8 **Library and/or information science education and training**

Various issues and themes associated with LIS education and training will be examined under this broad heading. However, to begin with it is important to provide a brief historical overview of LIS education and training in selected parts of the world in order to ascertain international trends in LIS education and training. Countries selected for discussion are generally those in which there have been significant developments in LIS education and training that have influenced trends in other parts of the world, particularly South Africa. These countries include the United States of America and the United Kingdom that have influenced LIS education and training trends in many parts of the world including Canada, Australia, South Africa and other

parts of Africa. It should be noted that because of the focus of this study, this historical overview concentrates on first level LIS education and training in the different countries. Furthermore, it does not focus on specialist education and training such as that in school librarianship.

2.8.1 **Library and/or information science education and training: United States of America**

Stieg (1992) provides a useful historical overview of LIS education and training in the United States of America. This discussion leans towards Stieg's work.

The beginning of formalised LIS education and training can be traced to the United States of America with the opening in 1887 of the first school of librarianship that was founded by Melvil Dewey at Columbia University. Prior to 1887 preparation for work in libraries was the responsibility of individuals who learned by doing, by observing practice or by serving some kind of apprenticeship in a library, very similar to the beginnings of professions like law, medicine, social work and so on. The opening of the first library school marked the beginning of a transition from haphazard, personalised preparation to formal, standardised instruction. The movement away from apprenticeship also made possible a shift from training to education although Dewey's curriculum did emphasise training. The curriculum he developed was based on the routine and typical day-to-day activities of a library and was essentially technical and clerical in content (Gates 1976: 90; Heim 1986: 583-584). By 1900 other schools of librarianship had been established with each school determining its own admissions criteria. At the same time numerous training programmes run by large libraries co-existed with the schools. Library educators at the library schools were generally former practitioners or current part-time practitioners.

The rapid growth of public and special libraries in the first two decades of the twentieth century was accompanied by demands for trained librarians (Gates 1976: 91). However, library education and training appeared out of control. There was a diversity of educational programmes, enrolment of students with different educational backgrounds, programmes lasting different lengths of time and different levels of skill

being taught. Neither the professional body, that is, the American Library Association (ALA) nor the then recently formed Association of American Library Schools was effective in imposing any kind of direction. The Carnegie Corporation (a humanitarian organisation interested in the development of libraries in different parts of the world) had been unhappy about the fact that many of the libraries that it had been building were not providing good services because of the lack of adequately trained personnel. It commissioned C.C. Williamson, head of the Division of Economics and Sociology of the New York Public Library, to conduct a study of library training programmes. The Williamson report, which was published in 1923, marks the turning point in education for librarianship and in fact a number of the observations and judgements Williamson made then are still applicable today.

Williamson criticised the emphasis that was being placed on the clerical and routine aspects of library work to the neglect of general education. He explained that two types of training are required for libraries. Firstly, there was the need for preparation for professional service, represented by a full college programme providing a broad general education and at least one year of graduate study in a library school properly organised to give professional preparation. Secondly, there was the need for training for clerical and routine work by completion of a four-year high school course followed by a course of instruction designed to provide an understanding of the mechanics and routine operations of a library (Gates 1976: 92). In addition to the need to differentiate between professional and clerical types of library work, Williamson also pointed out, among other things, the need for:

- Standards with regard to the scope and content of programmes, the accrediting of library schools and the certification of librarians, as well as an authoritative body to formulate these standards and enforce them;
- Entrance requirements based on a college education and thus placing library schools on the graduate level; and
- The establishment of the library school as a department of a university.

(Gates 1976: 92)

As a result of the Williamson report there was a period of significant growth and change in library education and training in the United States of America (as well as in Canada) much of which was subsidised by the Carnegie Corporation. The ALA established a Board of Education for Librarianship in 1924 to develop standards for educational programmes and over the years these standards have been revised a number of times. Williamson's recommendation that library school education be professional education only and that library schools be affiliated to universities, were implemented. New library schools were founded and training programmes in libraries gradually went out of existence. Research began to be established at some library schools.

The library schools, in the late 1940s, replaced the bachelor's degree they had previously awarded for the fifth year of study with a master's degree and this emphasised librarianship as a graduate profession. The 1960s witnessed much expansion in library education and training.

The ALA did not introduce the practice of the certification of librarians but instead chose to institute a system of inspection of the schools of librarianship (that is, the process of accreditation). Accreditation is a voluntary process and the ALA Committee on Accreditation visited library schools upon invitation from the schools (Bramley 1975: 7-8). Accreditation of library schools has far-reaching implications especially with respect to recognition of qualifications and employment. In fact many employers in the United States of America ask for ALA accredited qualifications for posts that they advertise.

However, by the mid-1970s expansion was replaced by contraction almost overnight. Library school graduates were unable to find jobs. Government funds dried up. Library schools, including accredited ones, began to close down. The surviving schools were generally smaller than they had been in the 1960s and early 1970s.

In recent times a noticeable trend has been the influence of information technology on library school curricula. For example, cataloguing via OCLC (Online Computer Library Centre) is taught in cataloguing classes, online searching is considered to be a

part of reference, spreadsheets and relational databases are a part of management. There are also separate courses in database design, automation and even programming. In fact some library schools are changing the name of their first professional degree (Master of Library Science), to reflect that graduates of the programme are being prepared for careers not only in libraries but also in other occupations involving the handling (especially electronic handling) of information. Furthermore, in many cases the title 'library school' now commonly includes the word 'information', for example 'information science' or 'information studies' or 'information management'. In some cases the word 'library' does not appear at all in the title. The integration of information science into the curriculum seems to have been universally accepted, with or without a name change in the title of the qualification or the school. This means that courses in reference work, cataloguing, selection, management and others now have built into them appropriate content relating to various aspects of automation and machine applications (Horrocks 1986: 293). These trends are applicable not only to LIS education and training in the United States of America but in other parts of the world as well.

Serious consideration is being given to the expansion of the master's programme to two years of study. However, this has yet to become standard practice in the United States of America even though it has more or less become so in Canada, which has largely been influenced by developments in the United States of America.

Apart from the master's programme in librarianship, which is the basic professional qualification in the United States of America, there are also other programmes in library education and training. There is the under-graduate programme in which librarianship can be taken as a major or minor subject. These programmes are generally offered not at universities, which focus on graduate studies, but at liberal arts colleges that generally offer a four-year general education programme leading to a bachelor's degree. The ALA is clear that those individuals possessing such a bachelor's degree should be designated 'library assistants' even if they have majored in librarianship. There are also the library technician programmes offered at junior colleges that include community colleges, city colleges and technical institutions. These colleges offer a two-year programme beyond the level of secondary education.

The library technicians coming out of these programmes are commonly referred to in the literature as LTAs (library technical assistants) and occupy posts at a level below that of librarians (Bramley 1975: 41-42, 55).

2.8.2 Library and/or information science education and training: Canada

Bramley (1975) provides a useful overview of LIS education and training in Canada. This section leans on Bramley's work.

Canada has generally followed the American model of requiring a graduate degree in librarianship for entry into the profession. Canadian library schools have for many years accepted accreditation by the American Library Association (Cameron 1982: 231). However, by the 1970s there was a desire on the part of the Canadian library profession to fashion its own library systems and its own professional education. By the early 1970s the following trends were evident:

- The development of a two-year master's programme as the basic professional qualification with a core curriculum occupying the first year and elective courses the second year, thus allowing students the maximum opportunity for specialisation;
- A movement towards the introduction of a system of accreditation that will be independent of the ALA; and
- The growth of library technician programmes located in community colleges that are non-degree granting institutions.

According to Bramley one of the most significant trends in North America (United States of America and Canada) has been the proliferation of programmes for library technical assistants (LTAs). As a result of the similarities in the development of these programmes in the United States of America and in Canada, the trends in this development will be discussed only in this section on library and/or information science education and training in Canada. (For the same reason trends in the development of professional education and training in librarianship have largely been

discussed under 2.8.1 above.) The role of LTAs is often discussed in the literature. They are trained to work under the supervision of librarians whose role it is to exercise professional judgement and to take decisions that require professional expertise. LTAs occupy positions in the library hierarchy between professional librarians and clerical staff and these positions are often defined as paraprofessional positions. LTAs support and assist the professional librarians in the many services offered by the library. They may supervise the work of clerical staff, student assistants and other LTAs. They may even, under the direction of a librarian, be responsible for a section or department in a library (Angel and Brown 1977: 50; Montgomery 1982: 159; Moriarity 1982: 237). This situation with the LTAs is similar to that of technikon LIS diplomates in South Africa who largely occupy paraprofessional type positions in libraries.

LTAs in both the United States of America and Canada are trained by a minimum of two years of study at college level. The ALA provides official recognition and acceptance of the value and need for library technicians. The rationale for introducing LTA programmes and for establishing positions for library technicians in libraries is as follows:

- It is wasteful of the time of professional staff if they are required to perform 'semi-professional' duties. Instead these duties may be undertaken by a special category of worker trained to a certain level of competence; and
- By establishing the LTA grade, libraries will provide a career structure for support staff and this will enable libraries to recruit support staff of good quality.

The evolution of librarian technician programmes in Canada has followed similar lines to those in the United States of America, often causing similar controversies and concerns. For example, librarians sometimes might be anxious that cynical employers would welcome the opportunity to employ these well trained paraprofessional staff in professional posts as a cost saving option, especially that so often duties in libraries do not divide themselves neatly into professional and non-professional tasks. These issues are picked up in more detail in section 2.9.

While the LTA programmes offered vary from college to college there are some common features. The programmes include both academic and technical components. The academic subjects are intended to broaden students' general information, develop oral and written communication skills and enhance career development. The technical subjects, and this is where the emphasis lies in the programmes, focus on actual library operations and services (Moriarity 1982: 238). In Canada, *Guidelines for the training of library technicians* (developed by the Canadian Library Association) recommend that all general education (academic) subjects taken by students should meet minimum standards of academic and intellectual competence so that they can be transferable to other post-secondary institutions such as universities to permit able and interested students to pursue degree programmes thus creating opportunities for articulation and facilitating mobility between different types of educational institutions (Angel and Brown 1977: 50). This is the type of co-operation that is required in South Africa between universities and technikons to facilitate articulation between the two types of institutions.

2.8.3 **Library and/or information science education and training: United Kingdom**

Bramley (1975), Rochester (1997) and Hall (1985) have been sources of information for LIS education and training in the United Kingdom.

As with the United States of America, it was commonly accepted in nineteenth century Britain that the best way to train new recruits to the profession was the apprentice system or 'learning by doing'. It was quickly realised that the apprentice system did not lend itself to the teaching of theoretical principles and that it is the possession of a body of theoretical principles that distinguishes the profession from other occupations. The university seemed to be the appropriate place for this professional education but unfortunately universities in Britain in the nineteenth century largely disassociated themselves from vocational training. Furthermore librarianship in the nineteenth century lacked the necessary prestige and status to commend itself as a subject to be included in a university curriculum. Hence librarianship was forced to take the same path as other emergent professions, that is,

to develop its own educational system. This possibly explains the departure of LIS education and training in the United Kingdom from general trends in LIS education and training in the United States of America and Canada, as will be seen in the discussion that follows.

The professional body, that is, the Library Association (LA), exercised control of professional education by holding examinations and issuing certificates of competence to the successful candidates. The LA, mindful of the deficiencies in the facilities available to the increasing number of individuals coming forward to sit its professional examination, sought to remedy the situation by establishing a network of full-time schools of librarianship. In 1920, at a time when universities were beginning to introduce vocational subjects into their curricula, a library school was established at University College, London. The LA was subjected to considerable pressure from its members who saw the graduates from the university library school as serious rivals for the higher posts in the field. The LA bowed to this pressure and made no further attempts during the years preceding the outbreak of the Second World War, to establish other university library schools. Instead it developed its own system of professional education. This meant the continuation of the apprentice system of training with young librarians preparing for the LA examinations by attending evening classes or by taking correspondence courses. The London school continued to hold its own programme and issue its own diploma.

By the 1960s education for librarians in the United Kingdom was characterised by:

- A system of professional examinations that were conducted by the LA and the award of certificates of competence to individuals on the successful completion of these examinations;
- The maintenance of a professional register by the LA which, by virtue of a Royal Charter granted to it, was able to call its qualified librarians 'chartered librarians'; and
- A network of library schools situated largely in colleges of further education. These non-university library schools prepared their students for the examination of the LA.

There were a number of important developments in the 1960s that dramatically altered the face of education in librarianship in the United Kingdom. Firstly, there was the introduction of a new syllabus for professional education in librarianship in 1964 and this brought an end to the old apprentice method of training. Coupled with the introduction of a two-year programme was the stated intention of the LA to progressively allow existing schools of librarianship more responsibility for the examination of their own students. Secondly, there was the establishment of the Council for National Academic Awards (CNAA). The CNAA was established with the intention of providing the non-university sector of higher education with the opportunity to offer degree programmes. The colleges would design their own degree programmes and examine their students. The CNAA would act as an accrediting agency (as done in the United States of America), vetting the programmes submitted to it by the colleges and after an inspection of the colleges, grant the right to conduct degree programmes (if it finds the colleges to be of acceptable standard). Thirdly, there was the appearance of a new type of educational establishment, the polytechnic. As explained above, library schools were located in colleges of further education that included technical and commercial colleges. The new polytechnics were mainly formed by the re-designation of some of the existing colleges. These polytechnics could submit their programmes to the CNAA for approval and this enabled them to offer programmes at degree level. Many of the library schools that had been located in colleges of further education were, as a result of the new developments, incorporated into polytechnics and could offer degree programmes in librarianship. Fourthly, there was a growing willingness on the part of universities to establish their own departments of librarianship. Thus there was the introduction of degree programmes in librarianship at university and polytechnic library schools. These developments had the result of diminishing the power that the LA wielded over education in librarianship in the United Kingdom. It was no longer the only agency that could award qualifications in librarianship.

There was now a variety of means (including non-graduate, under-graduate and post-graduate means) of gaining membership to the library profession and this could be done via a college or a polytechnic or a university. However, admission to the register

of chartered librarians was confined to those who had completed programmes that had the 'blessing' of the LA. There was also no legal requirement for librarians to register with the LA. The LA had moved closer to the role adopted by the ALA in the United States of America many decades earlier, that is, being largely an accrediting agency. It instituted visits to library schools to assess the relevance of their syllabi to professional practice and established a Standing Committee on Professional Education.

There had been much debate in the United Kingdom as to whether librarians should be graduates only. Proponents of the 'graduate only' argument believed that the two-year non-graduate programme should be withdrawn in view of a world-wide trend towards making librarianship a graduate profession as is in the United States of America, Canada and some other parts of the world. In 1980 the LA adopted a policy of graduate-only entry to the profession. This provoked much unhappiness amongst those who had qualified under the old system. However, the LA's policy prevailed and some institutions introduced part-time degrees to allow individuals to upgrade their qualifications.

It seems that while LIS education and training in the United Kingdom developed somewhat differently from other parts of the world, more recently it seems to have moved closer to trends in the United States of America and Canada in that the professional body now assumes an accrediting role rather than an examining role and librarianship has become a graduate profession.

It should also be noted that the LA has recently joined up with the Institute of Information Science to form the new Chartered Institute of Library and Information Professionals (CILIP), a reflection of an international trend of librarianship increasingly embracing the information aspect of the discipline.

2.8.4 Library and/or information science education and training: Australia

Rochester (1997) provides a useful overview of LIS education and training in Australia.

The system of library and/or information science (LIS) education and training that eventually evolved in Australia was based on Anglo-American traditions. Like in the United States of America and the United Kingdom, it evolved from an informal in-service and apprenticeship system in libraries in the nineteenth century to a formal system of instruction located in higher education institutions in present day Australia. This evolution was effected by many factors including developments in LIS education and training in the United States of America and the United Kingdom, the rise of technology, the development of the higher education sector in Australia and other social changes that have been taking place in Australia.

The Australian Institute of Librarians (AIL), which later became the Library Association of Australia (LAA) and is today known as the of Australian Library and Information Association (ALIA), played a leading role in establishing a system for the education of librarians (like the LA did in the United Kingdom). A standing Committee of the AIL referred to as the Board of Examination and Certification (today referred to as the Board of Education) was set up in 1941. This Board was responsible for the formal educational activities of the AIL, and later the LAA. It set out the conditions for professional membership of the AIL and it set up and conducted the examinations for the qualifying and registration certificates. The first examinations were held in 1944.

The AIL was acting as a qualifying association on the model of the LA in the United Kingdom, unlike the ALA that acted as an accrediting association, setting up standards for education and monitoring the library schools. Unlike the British situation there were no correspondence lessons and tutors but rather library schools located in major libraries in Australia (following an American precedent) but which taught the AIL syllabus and prepared students for the AIL examinations. It was clear

that the Australians were open to models from the United Kingdom and the United States of America, adopting aspects from both but adapting them to Australian conditions.

Developments in higher education in Australia in the 1960s and 1970s impacted significantly on the development of education and training in librarianship. Colleges of advanced education (CAEs) and universities formed a binary system of higher education in Australia. These two types of higher education institutions were regarded as being 'equal but different' with the CAEs emphasising vocational programmes and undergraduate teaching, and the universities placing more emphasis on post-graduate education and research, very much akin to what has been put forward by the National Plan for higher education in South Africa today (refer to 2.7). The CAE sector, with its vocational orientation, was seen as the ideal place to locate professional education and training in librarianship. Some universities, however, also began to offer programmes in librarianship as there emerged a greater willingness on the part of universities to offer vocational programmes.

Programmes located in these higher education institutions (that is, universities and CAEs) were both taught and examined by these institutions. As a result the LAA gradually shifted from being an examining body to an accrediting body in line with the American situation where the ALA accredited the qualifications offered by the library schools. The qualifying examinations of the LAA were still available but their end had been announced. Sub-committees of the Board of Education of the LAA made on-site accreditation visits to library schools. The LAA, however, still retained the rights of issuing certificates of competence and maintaining the lists of chartered members.

The LAA gradually introduced the policy of a graduate qualification to become a professional member of the LAA and thus took the decision to make librarianship in Australia a graduate profession. This policy was eventually enforced in the mid-1970s.

The 1980s and 1990s saw the necessity for education and training in librarianship in Australia, like in other countries, to adapt to the information age. The application of computer technologies to the gathering, organising and dissemination of information led to changes in the curricula of library school programmes as well as to name changes to reflect the new emphases. Librarianship programmes in Australia responded in different ways but there was a general trend of movement away from traditional librarianship. There was an increasing emphasis on preparing information professionals whose career options were much wider than positions in traditional libraries (a trend currently taking off on South Africa and discussed in Chapter 4). To this end some schools developed interdisciplinary programmes with other departments or schools such as business and computing.

As a result of expenditure cuts in higher education, the binary system of universities and CAEs was done away with and by 1991 there was a single higher education system of universities only in Australia. As a result of these changes there were mergers and upgrading of CAEs to the status of universities (as had happened with the polytechnics in the 1990s in the United Kingdom). Institutional and departmental mergers together with the demand for greater efficiency in higher education (as is currently happening in South Africa), resulted in the reduction in the number of library and information studies schools which were now located in universities. This is perhaps the same fate LIS departments or programmes in South Africa are likely to face in the current restructuring of the higher education sector. Already there has been a call in the Ministry of Education's *Approved academic programmes for universities and technikons : 2003-2006* for a review of LIS programmes in the regions in which they are duplicated (Ministry of Education 2002).

Library technician education and training programmes in Australia are two-year programmes and are generally located in technical and further education (TAFE) colleges. Australia was not just following trends in the United States of America and Canada in setting up library technician programmes. It was also reacting to pressures in its own libraries. Increasing demands on libraries, technological innovations and the need to deliver services in a cost effective manner made librarians look more closely at their activities and the need to employ paraprofessional staff in the form of

library technicians to free professional librarians from routine technical tasks. As in the United States of America and Canada, the work of the library technician is seen as being operational and required some special preparation but not a full professional programme. Library technicians are trained in the operation, maintenance and control of established systems.

Rochester points out that the LAA was able to assert its control in setting national standards and in accrediting library technician programmes, which was a departure from the practice by the ALA and LA. As an indication of the growing recognition of the importance of library technicians in Australian libraries, the General Council of the LAA in 1978 approved a new membership category for library technicians. Such a situation, unfortunately, does not exist in South Africa with regard to LIS paraprofessionals holding the three-year technikon National Diploma.

The introduction of automated systems into library and information services had a major impact on the education and training of library technicians. Automated systems and information technology in general was integrated into the curriculum of library technician programmes. Library administrators and information workers in general were alert to the potential role that technicians could play in automated library systems and in fact were already playing.

At this point the researcher would like to provide a summary of major international trends in LIS education and training against which LIS education and training in Africa generally and in South Africa specifically, may be juxtaposed:

- LIS education and training in the United States of America, Canada, the United Kingdom and Australia, seems to have had its beginnings in apprenticeship systems or 'learning by doing';
- In all of these countries, librarianship has become a graduate profession in that a graduate degree in LIS is required for entry into the profession;
- Professional LIS programmes are generally located in universities;
- Information technology has impacted significantly on LIS curricula;

- There have been changes in the names of professional bodies and of LIS schools, programmes and qualifications to reflect the new emphasis on information;
- LIS professional bodies in all of these countries are now engaged in accreditation of LIS programmes even if they initially began as examining bodies;
- Library technician programmes in the United States of America, Canada and Australia are of two-year duration, are offered at the college level and are regarded as LIS paraprofessional education and training focusing on LIS techniques and procedures; and
- LIS professional bodies in the United States of America, Canada and Australia officially recognise library technicians as LIS paraprofessional staff with a distinct career structure in LIS services.

2.8.5 **Library and/or information science education and training: Africa**

An important work on LIS education and training in Africa is the collection of essays on this subject by Michael Wise (1999). As it is not the intention of the researcher to provide a detailed account of LIS education and training in Africa but simply to show some trends here, the researcher has drawn largely from Rosenberg's (1999) concise overview of LIS education and training in Africa, which forms part of the above collection of essays.

Library and/or information science education and training in Africa too, was influenced by British and American trends. In the period immediately following the Second World War it was customary for librarians from Africa to obtain their professional qualifications by taking the examinations of the British Library Association. They either attended library schools in the United Kingdom or studied via correspondence. The general pattern at this time in most other parts of Africa (South Africa being the exception - refer to section 2.8.6) was that there was no systematic provision for the education and training of librarians. Education and training of librarians in Africa was largely established after 1960 and according to

Ocholla (2000: 35), this confirms Africa's dependence on foreign countries in this area of education and training.

Independence from colonial powers, especially Britain, in the 1950s and 1960s was accompanied by much expansion in library provision in African countries, which in turn created a demand for qualified librarians. The years between 1960 and 1980 saw the inception of education and training programmes for librarians in many African countries. By 1980 LIS education and training at some level was available in most African countries and programmes offered included certificates, diplomas, degrees, post-graduate diplomas and masters' degrees in Library Science. The certificate and diploma levels were considered paraprofessional and the rest professional. According to Rosenberg, it was inevitable that once library schools were established they would closely follow the British or American pattern in their implementation. For example, professional LIS programmes were located in universities, and certificate and diploma programmes in non-university institutions such as polytechnics and technical colleges, an international trend highlighted in section 2.8.4. In African countries too, like in the West and again highlighted as an international trend in section 2.8.4, a graduate degree in LIS is a requirement for entry into the profession. The researcher believes that perhaps this emulation of the West, notably the United States of America and the United Kingdom, is as a result of the assistance and funding and even academic staffing that came from these countries in the setting up of the first library schools.

Rosenberg points out that even after library schools had been established in Africa, the syllabi tended to be largely based on what was taught in the United States of America and in the United Kingdom. The necessity to indigenise curricula and make them relevant to local needs was recognised as far back as 1962 but this has been difficult to achieve. African library schools, in their aspirations to maintain international standards in professional LIS education have largely maintained the curriculum content of programmes from the West. Furthermore, there is a general lack of teaching and learning materials relevant to library and information work in Africa. Rosenberg points out that it is difficult to indigenise curricula if relevant indigenous research has not been carried out and incorporated into learning and teaching material.

A feature largely unique to Africa have been attempts to establish regional library schools, for example the East African School of Librarianship, as they offer economies of scale. Unfortunately, the history of institutions designed to serve more than one country on a regional basis in Africa has not been a very successful one for political and economic reasons. However, according to Alemna (1994: 429-430), the establishment of the African Regional Centre for Information Science at the University of Ibadan in Nigeria and its counterpart at Addis Ababa in Ethiopia, seem to be providing a new regional approach.

Library schools in Africa have, in the pursuit of their objectives, faced financial constraints. In most of Africa, education and training in librarianship has not been a priority on the agenda of governments, despite “official assertions in recognition of the importance of information in national development” (Alemna 1994: 432). The early stages in the development of library schools were not plagued by financial difficulties because of aid from the British Council, the Carnegie Corporation, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and other aid agencies. However, since the 1980s funding for library schools has become sporadic and has affected teaching and research in the sense that teaching and research resources have become difficult to secure. In this context it becomes difficult to establish new programmes or even, for that matter, to maintain existing programmes at an acceptable standard.

Africa then, in many respects has emulated international trends in LIS education and training. However, the need to indigenise LIS curricula to suit local conditions and needs and financial constraints that are impacting on LIS teaching and research, remain challenges for the future.

Before proceeding to look at LIS education and training in South Africa, it is important to mention two studies related to LIS education and training in Africa that the researcher found useful to some extent for the current study. Aina and Moahi (1999a) surveyed employers of graduates of the Department of Library and Information Studies at the University of Botswana to find out if these graduates met the expectations of their employers and to seek the opinions of employers on the

curriculum of programmes in the department. Aina and Moahi (1999b) conducted a tracer study of graduates of the Department of Library and Information Studies at the University of Botswana to determine the relevance of their training to their present tasks and their perceptions of the curriculum offered by the department. While both of these studies cover aspects relevant to the current study, for example, employers' and past students' views on LIS curricula in the context of the LIS services work environment, the main focus of these studies is on curriculum development of programmes in the Department of Library and Information Studies at the University of Botswana. The current study is different in that it is a comparative study of first level LIS qualifications offered at universities and technikons in South Africa. Unfortunately, the researcher has not come across in the literature any other study that has done a similar comparative study of LIS qualifications. However, the questionnaires for employers and graduates used in the studies by Aina and Moahi provided the researcher with useful ideas for the design of questionnaires for employers and past students in the current study. This is discussed further in Chapter 3.

2.8.6 **Library and/or information science education and training: South Africa**

While the literature review in previous sections has provided an overview of library and/or information science (LIS) education and training in other parts of the world in order to ascertain an overview of international trends, this section will be much more detailed and provide a historical overview of LIS education and training in South Africa as well as a review of the literature on important issues relating to LIS education and training in this country. It is necessary to resort to this detail, as the current study is located in the South African LIS education and training context.

According to Musiker (1986: 91) LIS education and training in South Africa had its beginnings in 1933 when the professional body, South African Library Association (SALA) as it was known then, introduced correspondence courses for the training of librarians following the 1928 recommendations of the Carnegie Corporation commissioners S.A. Pitt and M.J. Ferguson. Prior to 1933 librarians obtained

overseas, mostly British, qualifications via correspondence as had happened in most of Africa (as indicated in section 2.8.5). SALA, following very much the British model, offered courses and examinations in librarianship. In 1962 the professional body transferred responsibility for correspondence courses to the University of South Africa that had come to be established as South Africa's correspondence university. However, SALA, which subsequently became the South African Institute for Librarianship and Information Science (SAILIS) continued its involvement in education and training in librarianship through its Committee for Education and Research that had been involved in drawing up standards and guidelines for the education and training of librarians in South Africa.

The University of Pretoria became the first university to offer a programme in librarianship in 1938 and a year later, the University of Cape Town followed it. The University of South Africa began correspondence programmes in librarianship in 1955. There was a proliferation of university education and training programmes in librarianship in the years that followed (Musiker 1986: 91). The university qualifications offered included a two-year Lower Diploma in Librarianship that provided training of a paraprofessional nature. Professional training was obtained via a one-year Post-graduate Diploma in Librarianship (taken after completion of a three-year bachelor's degree) or a four-year Bachelor of Library and Information Science, also known as the *Baccalaureus Bibliothecologiae* (B.Bibl.). There were also advanced qualifications at honours, masters and doctoral levels (Kerkham 1988: 7).

It was clearly a departure from international trends that both paraprofessional and professional training in librarianship was being offered at universities in South Africa. Rosenberg (1999: 14) indicates that this happened in other African countries as well but as educational facilities developed in these countries, paraprofessional programmes had been passed on to non-university institutions. According to Kerkham (1988: 7) the late 1970s saw an increasing focus on the need for the professionalisation of librarianship and information science in South Africa and a clear distinction began to be drawn between professional librarians and information workers with a three-year degree plus Post-graduate Diploma or a four-year B.Bibl., paraprofessional library and information workers with a Lower Diploma, and clerical

and administrative staff with a school leaving certificate. At this time universities began phasing out all programmes of a sub-degree standard and this included the Lower Diploma in Librarianship. The gap in paraprofessional training left here was to be filled by technikon offerings in LIS education and training that is discussed later in this section. Thus professional LIS education and training in South Africa became established in universities at the graduate level as was the international trend highlighted in section 2.8.4.

SALA's Committee for Education and Research in 1979 developed the *Standards for library and information service* that "guided universities for many years in their curriculum developing stages" (Van Brakel 1992: 188). The first set of standards was developed in 1948 and was subsequently replaced by a set developed in 1964 (South African Institute for Librarianship and Information Science 1987: 1). In its 1987 *Standards for education for library and information science* SAILIS (through its Committee for Education and Research which later became the Committee for Formal Education) continued to assume responsibility for the advancement of education and training in library and information science and recognised a professional as well as a paraprofessional level in education and training in library and information science:

A professional level, which shall provide for the education of staff capable of exercising professional tasks in the library and information service and of assuming responsibility in middle-management... ;

A paraprofessional level, which shall provide for training of staff with the knowledge and competence required for the handling of standard library and information techniques, procedures and appliances in a prescribed manner.

(South African Institute for Librarianship and Information Science 1987: 4)

The 1987 SAILIS Standards also made it very clear that education and training in library and information science at the professional level must be offered at a university thus firmly establishing in South Africa the international trend of LIS education and training being located in universities.

A survey undertaken in the early 1990s by Van Brakel (1992: 189) among eleven universities in South Africa offering LIS education and training, reported variations in the official names of academic departments. Some of these variations included: School of Librarianship, Department of Library and Information Science, Department of Information Science and Department of Information Studies. Van Brakel pointed that while these might serve to indicate the teaching specialities of the departments, in some cases it seems as if it is merely a matter of keeping up with the new international trend of reflecting the new emphasis on information, as highlighted in section 2.8.4. Nassimbeni (1988: 155) comments that the terminological trend of the word 'information' replacing the word 'library' and its derivative forms in the names of library schools, journals and professional organisations, has become particularly noticeable in the United States of America, the United Kingdom as well as in South Africa. Stilwell (1997: 207) comments that the core curricula of the various LIS education and training departments in South Africa have "varying emphases between library and information studies on the one hand and information science on the other". Underwood and Nassimbeni (1996: 219) see these differences of emphasis in the curricula offered as an exploration of the "distinction, if any, between library science and information science" and "South Africa is not unique in exploring this issue...[it is] typical of many other countries". Underwood and Nassimbeni (1996: 219) go on to point out that "a recent effect of this difference in emphasis is a change in nomenclature by some institutions for their departments and degrees to emphasise 'information' instead, or to the exclusion, of 'library'".

The 1992 report of the National Education Policy Investigation (NEPI) Library and Information Services Research Group highlighted a number of areas that needed to be addressed in LIS education and training in South Africa. Some of these included the lack of differentiation and specialisation among teaching departments, the lack of articulation of programmes between institutions that results in limited mobility, and curriculum offerings that neglect the local and African context (National Education Policy Investigation 1992: 38).

Nassimbeni, Stilwell and Walker (1993: 31) have commented on the issue of differentiation and specialisation among teaching departments by stating that apart

from a tendency among many universities to move towards an emphasis on 'information science', there are few options for specialisations in other areas. The IFLA Mission to South Africa (International Federation of Library Associations and Institutions 1994: 61) commented on the fact that first level LIS education and training in South Africa tends to be deliberately broad-based in order to enable professionals to find employment in a variety of LIS services organisations. Van Brakel's 1992 survey of LIS teaching departments referred to above, also revealed very little specialisation at the basic professional qualification level and recommended that university LIS departments "ought to specialise according to their unique environments, for example, commercial/business environment, museums, information technology, public libraries, community information services, and so forth" (Van Brakel 1992: 190). The example of the Library and Information Science Department at the University of the North that is situated in a rural area and specialises in information services for agriculture, is cited. The SAILIS *Proposed guidelines for undergraduate career training* also encourage specialisation at the level of basic professional qualifications (South African Institute for Librarianship and Information Science 1996: 3). Underwood and Nassimbeni (1996: 219-220) have commented that the range of specialisation offered by the LIS education and training sector in South Africa is small with school librarianship being the main area of specialisation. They believe that this is a reflection of a general debate over whether the function of LIS education is best served by supplying generalist programmes or a range of sharply differentiated programmes leading to different career paths. (This 'specialisation versus generalisation' debate is discussed in section 2.10.4.) It seems then that the general lack of specialisation at the basic qualification level in LIS in South Africa is lamented and there is much encouragement for such specialisation to occur, an issue being investigated by the current study.

With regard to the articulation of LIS programmes between institutions, Nassimbeni, Stilwell and Walker (1993: 31) have pointed out that because of the absence of linkages between institutional types, student mobility is restricted. The IFLA Mission to South Africa, reported a similar conclusion saying that the current LIS education and training situation in South Africa is such that it promotes little or no standardisation between technikon and university based qualifications. However, the

researcher would like to point out that the transformation that higher education in South Africa is currently undergoing, especially the development of the National Qualifications Framework (refer to discussions in sections 2.6 and 2.7), would hopefully establish the necessary linkages between higher education institutions to promote the articulation of LIS programmes between institutions and the mobility of students generally.

The issue, raised by the NEPI report, of curriculum offerings in South African LIS education and training that neglect the local and African context has been commented on several times over the years. Zaaiman (1985: 136) identified the domination of ideas emanating from the West as a deficiency in LIS education and training in South Africa. Nassimbeni, Stilwell and Walker (1993: 31) have commented that progressive LIS services workers have expressed concern that most curricular offerings in South Africa “assume inappropriate Anglo-American models and fail to address the realities of the current library and information infrastructure in South Africa”. Manaka (1990: 43) and Underwood (1996: 147) have also commented on the need to take cognisance of indigenous culture in LIS education and training. It is evident to the researcher that as in the case of the rest of Africa, in South Africa too, the need to indigenise LIS curricula has been recognised. It is the researcher’s opinion, based on personal and professional experience, that there have been attempts by LIS departments or programmes to heed the calls for greater African content in LIS curricula, but obviously with varying degrees of success among the different LIS departments or programmes.

Technological imperatives in South Africa, like in other parts of the world, have called for and led to curricular revisions in LIS education and training. There seems to be a general fear among LIS departments or schools (locally and internationally) that if they do not respond to technological change by making appropriate innovations to the curriculum, other bodies or academic departments, for example, Computer Science, will meet the challenge. The SAILIS *Proposed guidelines for undergraduate career training* acknowledged that “it is becoming increasingly difficult to restrict the training area to (traditional) library work”. It therefore recommended that professional subjects in under-graduate education and training “should be placed in broader social,

cultural, political and economic contexts by including related fields of information work” such as “information management, information technology management and other specialised information work” (South African Institute for Librarianship and Information Science 1996: 1). Ocholla (2000: 37-38), in a comparative overview of LIS education and training in Africa in which he remarks that “in this new millennium, disregard for technological and market place forces...is suicidal” (again demonstrating the fear of LIS departments or schools mentioned above), cites South Africa as an example of where most LIS education and training curricula have undergone revision to keep abreast with new developments. It is the researcher’s opinion that while most LIS departments or programmes in South Africa have attempted to expose students to a variety of applications in information technology, this has been done with varying degrees of success with education and training institutions’ ability to provide the required IT resources being a crucial factor here.

Nassimbeni (1988: 168) remarks that despite differences in terminology and variations in emphases there has been considerable uniformity among the curricula offered by the various LIS departments or programmes in South Africa. This is because the SAILIS 1987 *Standards for education for library and information science* had laid down the major elements of study (the common core) for basic professional education and training, which LIS departments or programmes were obliged to represent adequately and appropriately in their curricula. The SAILIS Committee for Formal Education evaluated professional curricula according to the precepts outlined in the *Standards for education for library and information science*. In this way SAILIS played an accrediting role in LIS education and training in South Africa very much like the professional bodies do in the international LIS scene and as has been highlighted in section 2.8.4.

LIS graduates were able to attain full professional membership of SAILIS after serving two years of practical experience under the supervision of a professional librarian or information worker and upon acceptance of their applications for professional membership. As a national professional accreditation body SAILIS had no statutory powers but was able to influence employment opportunities in established LIS services organisations. For example, it was not unusual for advertisements for

professional posts to require SAILIS professional membership as a preference (International Federation of Library Associations and Institutions 1994: 62). In the late 1990s SAILIS was dissolved, and the Library and Information Association of South Africa (LIASA) was launched in 1997 as the new professional body in the LIS sector (Library and Information Association of South Africa 1997: 1). Accreditation has been in abeyance since the early 1990s because new educational guidelines were being discussed within SAILIS (Nassimbeni, Stilwell and Walker 1993: 32). The new guidelines (*Proposed guidelines for undergraduate career training*) emerged in 1996 at a time when there were dramatic changes taking place in South African society generally and in higher education specifically (refer to sections 2.6 and 2.7). SAILIS' Committee for Formal Education that was responsible for compiling the Guidelines indicated that in view of the changes currently taking place in South Africa, especially policy that was evolving at the macro-level in higher education, it was not possible to present standards but only guidelines "limited to those matters over which the training institutions have a measure of control". These Guidelines were to serve as an "interim measure to provide assistance to all training units" (South African Institute for Librarianship and Information Science 1996: 1, 3-4). This (and the fact that SAILIS was winding down its activities in preparation for the launch of LIASA and the dissolving of SAILIS by the late 1990s) could possibly explain why suspension of accreditation of LIS education and training programmes continued even after the emergence of the 1996 Guidelines. However, more importantly accreditation is likely to remain in abeyance until SGBs, NSBs, ETQAs and other new structures for standards generation and accreditation of programmes (refer to discussion in sections 2.6 and 2.7) for the LIS education and training sector become fully operational. As with education and training in other fields, standards generation and accreditation of programmes in the LIS education and training sector will now fall under the ambit of SAQA and its National Qualifications Framework but with the involvement of professional bodies, LIS education and training providers and other stakeholders in the LIS services field.

The researcher would like to go a few years back and discuss a rationalisation initiative that affected LIS education and training in South Africa. In 1988 the Academic Planning Committee (APC) of the Committee of University Principals

(CUP) undertook a national review of academic programmes in librarianship and information science. This review stemmed from “general government concerns about inefficiencies in the university system...” especially “the duplication of services by universities, the retention of courses with low enrolments and low student outputs, and the over-production of graduates in certain fields of study”. The government intended to undertake a major investigation into the issue of rationalisation of university activities. The CUP reacted to this announcement by asking the government to allow the universities themselves to initiate the investigation required for a programme of rationalisation. The Minister of National Education agreed to this and the APC of the CUP was asked to act as the co-ordinating committee on rationalisation. It began its rationalisation review in 1989 with two ‘pilot studies’. One of the two disciplines selected for the ‘pilot reviews’ was librarianship and information science. The review began in October 1988 and was completed in September 1989. The CUP released the final report of the review committee in 1990 (Bunting 1990: 53-56). The report is commonly referred to in the literature as the Bunting report or the Bunting recommendations after the chair of the review committee.

Bunting (1990: 57-58) explains that the conclusions and recommendations of the review committee were based to a large extent on detailed submissions received from universities regarding student enrolments, programmes offered, graduates/diplomates, staff employed, publications, conferences and costs. These submissions were analysed by the review committee and a statistical picture of each of the eleven active university departments of librarianship and information science was constructed. The review committee was required to submit an interim report and an interim set of recommendations to the universities concerned as well as to SAILIS. The review committee was also required to take the responses of the universities and SAILIS into account when formulating its final report and recommendations.

The review committee arrived at the general conclusion that “librarianship programmes in universities in South Africa must be rationalised” and formulated the following specific conclusions:

- that librarianship programmes are not cost effective;
- that unnecessary duplication exists in the teaching of librarianship in universities;
- that librarianship programmes in the residential universities are under-utilised; and
- that the overall quality of librarianship programmes is not good.

(Bunting 1990: 63; Committee of University Principals 1990: 9)

The final recommendations to the APC of the CUP regarding each of the departments under review were published in the CUP's *Review of librarianship: final report* in 1990 and the recommendations for each department were accompanied by a full motivation. The recommendations included closure of certain departments, some departments curtailing programmes offered and other departments developing their current programmes (Committee of University Principals 1990: 21-27).

The national review of academic programmes in librarianship and information science resulted in the closing of the library school at the University of the Witwatersrand, some departments curtailing their programmes and other departments mandated to retain and develop post-graduate programmes (Nassimbeni, Stilwell and Walker 1993: 32, 36). Van Brakel's (1992: 191-192) survey of universities in South Africa offering LIS education and training indicated that the Bunting recommendations "had not had much effect on LIS training in South Africa" as only a few direct changes were reported. Van Aswegen (1997: 54) points out that not all universities heeded the recommendations of the Bunting report. The CUP made it clear that these recommendations were merely recommendations and that "individual universities' autonomy is fully respected and the decision on closing or scaling down of any academic activity of the universities fully rests with respective Senates and Councils" (Brink 1991: 7).

However, Van Brakel warned in his 1992 survey that the Bunting investigation will, perhaps in another guise, rear its head in the future and this time with more binding effect and drastic actions such as reduced subsidies being implemented. And indeed it

has, and this time in the form of the National Plan to restructure the higher education system in South Africa to overcome inequalities and inefficiencies of the past (refer to discussions under 2.6 and 2.7). In fact the recent *Approved academic programmes for universities and technikons : 2003-2006* document that gives effect to aspects of the National Plan has specifically called for a review of programmes that are duplicated in certain regions (Ministry of Education 2002), LIS programmes in the province of Kwazulu Natal being among these, as explained in section 2.7.

The NEPI Library and Information Services Research Group (National Education Policy Investigation 1992: 37) expressed regret that the Bunting review committee was not able to include in its terms of reference an examination of the role of technikons in LIS education and training and the relationship between their programmes and those of the universities. For the same reason Underwood and Nassimbeni (1999: 186) believe that the conclusions of the Bunting review committee cannot be regarded as a “complete statement about the needs and demands for professional and paraprofessional education” in South Africa. In the researcher’s opinion, the Bunting recommendations were useful to the extent that it assisted in reducing duplication in LIS education and training through closures and also in attempts to improve the quality of LIS academic programmes through recommending curtailment of some and strengthening of others (that is, if these recommendations were followed through). However, not including technikons in its review process has resulted in the old situation of duplication of LIS programmes coming up again with universities and technikons now both offering degrees up to doctoral level. It is thus not surprising that the Ministry of Education’s *Approved academic programmes for universities and technikons : 2003-2006* is calling for a review of LIS programmes that are duplicated in, for example, the province of KwaZulu Natal (Ministry of Education 2002).

According to Kerkham (1988: 7) the stage was set for technikons to develop a paraprofessional programme in LIS education and training when SALA published the 1979 *Standards for education for library and information service*. This document included a section on standards for the training of paraprofessional staff in libraries. It was also in the late 1970s, as mentioned earlier, that universities began to phase out

the Lower Diploma in Librarianship that provided paraprofessional training in librarianship. This gap in paraprofessional training was filled by technikon offerings in LIS education and training as the late 1970s witnessed an increasing need for a “new category of library employee ... who would be fully conversant with modern office and information technology” (Kerkham 1988: 7). This is in keeping with international trends in LIS education and training where paraprofessional LIS programmes are located in non-university institutions.ⁱⁱⁱ

The three-year National Diploma in Library and Information Services (which has undergone a few name changes and is today referred to as the National Diploma in Library and Information Studies), was first offered by Port Elizabeth Technikon in 1984, followed by the Cape Technikon in 1985, Pretoria Technikon and M.L. Sultan Technikon in 1986 and Natal Technikon in 1987, the last mentioned for a brief period only. Technikon South Africa (TSA) in 1992 began a correspondence (distance education) National Diploma that was aimed at individuals already employed in libraries (Van Aswegen 1997: 54). Van Aswegen points out that the technikon National Diploma “was in its infancy at the time of the Bunting debacle, resulting in recriminations from universities whose departments of LIS were threatened with closure”. According to Bunting (1990: 58), at the time of the Bunting investigation there were eleven universities (excluding Rhodes University and the University of Durban-Westville which were winding down their activities for closure) and five technikons offering LIS education and training programmes.

According to Kerkham who was personally involved in developing the curriculum of the technikon National Diploma (Kerkham 1986: 3), in developing the curriculum cognisance was taken of library technician programmes overseas especially those in Canada and Australia. However, according to Kerkham, overseas curricula were not followed blindly, as it was necessary to develop a curriculum to suit the requirements of the South African situation. This included the guidelines set out in the SALA 1979 *Standards for education for library and information service*, requirements of the Department of National Education for registration of a National Diploma and the particular needs of South African libraries, which were becoming increasingly involved in modern information technology (Kerkham 1988: 9). Over the years this

curriculum has undergone much re-curruculation involving input from all technikons offering the National Diploma as well as from Advisory Boards comprising both academics and practising librarians and information workers from all types of libraries and information services. All technikons in South Africa offering the National Diploma share the same co-operatively drawn up syllabus with up to thirty percent 'local content' permitted (Van Aswegen 1992: 20). Refer to Appendix A or B for an indication of the types of instructional offerings currently included in the technikon National Diploma programme. The minimum admission requirement for the National Diploma is a senior certificate (school leaving certificate) or its equivalent. Matriculation exemption is not necessary unlike with the university based first level LIS education and training programmes that do require the general university admission requirement, which is a matriculation exemption (South African Institute for Librarianship and Information Science 1987: 7, 12). Some technikons also require as part of the admission requirements the successful completion of an English language comprehension test and an aptitude test as well as an interview (International Federation of Library Associations and Institutions 1994: 61-62; Kaniki 1995: 23). This difference in general admission requirements for first level LIS education and training programmes between the two types of higher education institutions (that is, universities and technikons) has important implications for current debates on articulation between programmes of the two types of institutions, which is an issue being looked at by the current study.

As mentioned earlier, SAILIS in its 1987 *Standards for education for library and information science* recognised a paraprofessional level in LIS education and training. Besides providing "Standards for the education of professional staff", this document also provided "Standards for the training of paraprofessional staff" (South African Institute for Librarianship and Information Science 1987: 11-15). In fact in 1988 the National Diploma in Library and Information Services offered by the Cape Technikon was evaluated and accredited as a paraprofessional diploma by SAILIS' Committee for Formal Education (Van Aswegen 1997: 55, 56). Furthermore, technikon programmes were evaluated by the Certification Council for Technikon Education (SERTEC) that evaluated and accredited both the co-operative education (experiential

learning) aspects as well as the formal teaching aspect of technician LIS education and training programmes.

Libraries have traditionally had many support posts that have been occupied by a variety of types of staff ranging from clerical staff and technical staff to graduates in possession of general bachelors' degrees. According to Kerkham (1988: 10) and as already mentioned in the context of LIS services in the United States of America, Canada and Australia, the increasing availability of trained LIS paraprofessionals to expertly perform support tasks, especially those of a technical nature, frees the professional librarian to concentrate on professional aspects which require conceptual development and content analysis, such as building up collections, investigation of information needs, design and development of information systems, and evaluation of systems and services.

The distinction reflected in the literature between the professional who engages in tasks that require conceptual development and the paraprofessional who engages in tasks that require application of given concepts, has already been alluded to in section 2.5. Over the years there have been specific documents (both local and international) that have attempted to distinguish between professional and paraprofessional LIS services tasks. For example, at the international level, there was the *Guidelines for the education of library technicians* developed in 1982 by the Canadian Library Association, *Professional and non-professional duties in libraries* developed in 1974 by the Library Association in the United Kingdom, *Descriptive list of professional and non-professional duties in libraries* developed in as early as 1948 by the American Library Association and the *Work level guidelines for librarians and library technicians* developed in 1986 by the Library Association of Australia. Presumably all of these documents have over the years been updated to accommodate changes taking place in the field. Although Rochester (1997: 207) has pointed out that there is a considerable overlap of tasks between professionals and paraprofessionals in the LIS services workplace, these and other similar documents have been useful in providing guidelines to distinguish between the work of professionals and paraprofessionals in the LIS services workplace as well as in LIS education and training of professionals and paraprofessionals.

In South Africa, Le Roux (1985) under the guidance of SAILIS' Committee for Education and Research compiled *Guidelines for distinguishing between professional and non-professional work and staff in library and information services*. This document views the “nature of the thought processes and insight that are needed to carry out the work” as the criterion that distinguishes professional work and paraprofessional work:

The work is professional where action, thought and interpretation are undertaken, which to be successful, requires the worker to have an academic background and knowledge and understanding of the objective to be achieved.

The work is paraprofessional ... where the action, thought and interpretation are undertaken within the limits of previously established rules, regulations and procedures. (Le Roux 1985: 2)

Hence, according to Le Roux professional LIS services staff possess a professional knowledge of the principles of librarianship and information science, of the principles, theories and techniques which are applicable to any library and information service, and of the expert provision of professional services. Paraprofessional LIS services staff possess knowledge of and are skilled in the prescribed functions, services, practices and procedures of the library and information service in which they work.

The SAILIS 1987 *Standards for education for library and information science* reiterates this by stating that:

Training programmes [for paraprofessional LIS staff] shall be so devised that students, having completed their training, should be competent to apply standard techniques, methods and procedures in operational environments, and to handle standard systems and apparatus.

(South African Institute for Librarianship and Information Science 1987: 13)

Refer to section 2.9 for further discussion on professionalism and paraprofessionalism in LIS education and training. However, the point needs to be made here that it is clear from the above documents that both professional and paraprofessional categories of staff are critical to a LIS service. One cannot exist without the other, as one cannot have doctors without nurses (and vice versa) in a hospital service. This means that it is

important that there are institutions that provide education and training for each of these categories of staff as alluded to in section 2.5.

Kerkham (1988: 9) pointed out that an important development for job appointment purposes was the evaluation of the National Diploma in Library and Information Services by the Human Sciences Research Council (HSRC) as senior certificate (or matriculation) plus three years education and training in LIS (M+3). This meant that this National Diploma was recognised as being on par with any other National Diploma, and the diplomates should therefore be appointed on the same rank and salary scale as other technicians with National Diplomas in, for example, art, horticulture, chemistry and engineering. However, technikon LIS diplomates seem to have experienced difficulties in LIS services employers seeing the National Diploma as a paraprofessional qualification with a distinct career path for the holder of the qualification as library technician qualifications are viewed in other parts of the world such as the United States of America, Canada and Australia. For example, Van Aswegen (1997: 54) reports that an alumni survey conducted in the early 1990s by the Department of Library and Information Studies at the Cape Technikon, revealed that despite the HSRC evaluation, most libraries had no separately designated post descriptions for LIS technikon diplomates, and technikon diplomates found themselves working “‘below stairs’ as it were, on a par with library assistants in possession of a senior certificate [school leaving certificate]”, with one or two salary notches to compensate for three years training, and few prospects for promotion beyond that of senior library assistant.

It is crucial to point out Kerkham’s (1988: 8) view that paraprofessionalism in LIS services should be seen as a “parallel career option” and not “*per se* a step in the direction of professionalism”. According to Kerkham, in the library context, the paraprofessional is commonly called a library technician, who performs a supporting role alongside the professional librarian. As in other paraprofessional fields, there should be possibilities for advanced studies, but such advanced qualifications do not turn the library technician into a professional librarian; rather, he or she would become a highly skilled technologist. Kerkham’s reasoning here is very much in line with the purpose of technikon education discussed in section 2.5.

Horton (1990: 3) in proposing a structure for the library and information profession in South Africa had a similar vision. He put forward that the profession should not be seen as a hierarchical structure going vertically from the lower levels of the paraprofessional to the higher levels of advanced doctoral degrees, with the ultimate goal of everyone climbing as high up the ladder as possible. Rather the structure of the library and information profession should be seen as categories of parallel vertical structures. Within most parallel structures there is a vertical progression which some will aspire to climb as high as necessary to reach their level of maximum effectiveness.

Thus it is very important, in the researcher's opinion, that these two alternative or parallel career paths (that is, LIS professionalism and paraprofessionalism) should be seen in terms of a division of labour, each with its own career path or progression, and not in terms of superiority and inferiority. It is for this reason that the researcher's earlier analogy of doctors and nurses is useful. Both categories of staff are essential in a service, one cannot do without the other but each category has its own career path to be pursued.

The alumni survey referred to by Van Aswegen revealed that most LIS services employers did not have the post descriptions and salary structures to accommodate the National Diploma qualification. Only a few libraries had pro-actively instituted special post designations such as Assistant Librarian and Professional Assistant to accommodate technikon diplomates. Mhlongo (1998: i) too, in her study on the preparedness of technikon trained LIS diplomates, found that diplomates were "under-utilised" in the LIS services work environment as they were not performing tasks for which they had been trained, indicating a reluctance on the part of LIS services employers "to afford diplomates the opportunity of undertaking paraprofessional tasks". Van Aswegen also points out that the paraprofessional designation 'library technician' which is well established in the United States of America, Canada, Australia and in other parts of the world is not in common use in LIS services in South Africa.

LIS services employers too, in the researcher's opinion, need to understand that LIS professionalism and paraprofessionalism should be seen in terms of a division of labour, each with its own career path or progression. Once clarity is achieved on this then they are more likely to see technikon diplomates as paraprofessionals for whom possibly distinct paraprofessional positions may need to be established in LIS services.

As pointed out in section 2.5, the *Technikons Act* (Act 125 of 1993) established technikons as degree-awarding institutions. In 1996 certain technikons were granted permission by SERTEC to offer the B.Tech. (*Baccalaureus Technologiae*) in Library and Information Studies as well as masters' and doctoral degrees in library and information studies. These higher degrees replaced the old National Higher Diploma (M+4, that is, matriculation plus four years education and training in LIS), Master's Diploma in Technology (M+5) and the Laureatus in Technology (M+6). These new developments once again involved re-curriculation with some technikon LIS departments, "given the large intake of students from previously disadvantaged communities, opting to offer the preliminary National Certificate (M+1) and the National Higher Certificate (M+2)" (Van Aswegen 1997: 56, 57). The traditional technikon National Diploma remained as the M+3 qualification. Students therefore have the option of exiting with a paraprofessional qualification after one, two or three years of study. Admission requirements for the B.Tech. in Library and Information Studies is generally a minimum of sixty percent in each of the major final-year National Diploma subjects.

SAILIS' Committee for Formal Education, in its *Proposed guidelines for undergraduate career training*, makes an oblique reference to the four-year technikon degree as a professional qualification. The 1996 Guidelines state quite directly that the National Certificate, the National Higher Certificate and the National Diploma are paraprofessional qualifications offered by technikons. With regard to professional qualifications it states: "For a professional bachelor's degree at a university or a technikon a study course equivalent to at least four years' full-time study is required" (South African Institute for Librarianship and Information Science 1996: 1). This acknowledgement, though indirect, does represent a change in position from the 1987

SAILIS Standards that was quite clear that professional qualifications in LIS education and training must be offered at a university. For the researcher it also represents the ongoing lack of clarity on the issue that paraprofessionalism has its own career progression parallel to professionalism but not in the direction of professionalism as pointed out by Kerkham and Horton above and alluded to in section 2.5 in the discussion on the purpose of technikon education and training *vis-à-vis* university education and training. However, the Committee for Formal Education that was responsible for compiling the 1996 Guidelines is careful to point out that the guidelines should not be regarded as education and training standards for library and/or information science. They should be seen as general guidelines for achieving academic excellence in education and training units.

The 1996 Guidelines perpetuates the so-called ‘uncertainty’ regarding the four-year technikon qualification. The researcher interprets this ‘uncertainty’ as a lack of clarity among many on the issue of professionalism and paraprofessionalism each having their own career progressions. This ‘uncertainty’ is evident in Underwood and Nassimbeni’s comment (1996: 219) that “it is unclear whether some employers, such as universities, will be willing to appoint people who have obtained the National Higher Diploma [now replaced by the B.Tech.], but do not have university degrees, to professional posts”. (This is one of the areas that the empirical part of the current study attempts to research. Refer to Question 33 in Appendix B.) As pointed out earlier the university degree has traditionally, and in keeping with international trends, been the requirement for appointment to professional posts in this country.

Stilwell (1997: 209) makes reference to current debates of how “technikon diplomates can gain access to [university] honour’s and master’s degrees” and about “equating ... the B.Tech. with the B.Bibl. and the B degree and post-graduate diploma”, thus making reference to issues of articulation between university and technikon LIS programmes, which is also an issue being investigated by the current study. According to Underwood and Nassimbeni (1996: 219) these problems of vertical and horizontal mobility are experienced across many academic disciplines and professional areas of study with the result that in the absence of “an agreed upon system of modular credits, accreditation and the ability to use credits gained for

courses completed elsewhere, students tend to find themselves ‘locked in’ to a particular package of courses offered by one institution”. It is hoped that these unresolved issues of recognition of qualifications, accreditation and articulation between different types of higher education institutions will be resolved by current attempts to develop a single co-ordinated system of higher education in South Africa that brings together universities, technikons, colleges and private providers of higher education, and will facilitate recognition of qualifications, accreditation and student mobility between different types of higher education institutions (refer to discussions in sections 2.6 and 2.7).

In summary, some of the key issues in this section on LIS education and training in South Africa are as follows:

- In keeping with international trends, professional LIS education and training in South Africa has been located in universities and has been established at the graduate level;
- According to the literature there has been a general lack of specialisation at the basic qualification level in LIS education and training. The literature reveals a general encouragement of specialisation at this level;
- It is imperative for LIS curricula to take cognisance of the local and African context;
- Information technology has impacted significantly on LIS curricula as has happened in other parts of the world as well;
- The ‘old’ situation of duplication of LIS programmes in certain regions that the Bunting recommendations attempted to resolve has come up again with universities and technikons now offering degrees up to the doctoral level. Thus it is not surprising that the Ministry of Education’s *Approved academic programmes for universities and technikons : 2003-2006* has called for a review of LIS programmes that are duplicated in certain regions.
- Paraprofessional LIS education and training is currently located in technikons;
- Professional LIS services staff engage in tasks that require conceptual development and paraprofessional LIS services staff engage in tasks that require application of given concepts. Both categories of staff are critical in an

LIS service and hence it is important that there are institutions that provide education and training for each of these categories of staff;

- Professionalism and paraprofessionalism in LIS services should be seen as alternative or parallel career paths each with its own career progression, that is, as a division of labour in LIS services and not in terms of superiority and inferiority;
- LIS technikon diplomates have experienced difficulties in LIS services employers seeing the technikon National Diploma as a paraprofessional qualification with a distinct career path for the holder of the qualification;
- Much of the current uncertainty regarding whether the B.Tech. in Library and Information Studies should be regarded as a professional LIS qualification is, in the researcher's opinion, the result of a general lack of clarity on the issue that professionalism and paraprofessionalism are alternative or parallel career paths each with its own career progression and that the latter is not a step in the direction of professionalism; and
- The literature raises the issue of articulation between university and technikon LIS programmes, which is a currently unresolved issue but, as discussed in sections 2.6 and 2.7, is currently being addressed by attempts to develop a single co-ordinated system of higher education in South Africa that will facilitate articulation between institutional types.

It is important to mention that the review of literature on LIS education and training in South Africa (section 2.8.6) has revealed that to date there has not been a comparative study done on first level LIS education and training qualifications offered by universities and technikons in South Africa. The literature reviewed has also revealed that while there have been studies that have focussed on LIS education and training at universities in South Africa, there has been relatively little on LIS education and training at technikons, which is not surprising as technikons are relative newcomers to LIS education and training in this country. However, it is important to mention two higher degree studies that in the process of their investigations, have, like the current study, looked at LIS education and training at technikons in South Africa. Van Vuuren (1995), in her study, aimed to determine whether the LIS profession in South

Africa would accept a changed qualification structure for library and information science education and training at a technikon through the medium of distance education. Mhlongo (1998) conducted an evaluative study on the preparedness of technikon trained library and information science diplomates for the work situation.

2.9 Professionalism and paraprofessionalism in library and/or information science education and training

Chapter 1 (section 1.5) has provided definitions of how the terms **library and/or information professional** and **library and/or information paraprofessional** are used in this study. This section will discuss how the concepts of **professionalism** and **paraprofessionalism** are treated in the literature. According to Nettlefold (1989: 519) paraprofessionalism can only exist alongside professionalism no matter what the discipline involved is. The researcher has already pointed out in the previous section that professionalism and paraprofessionalism are two sides of the same coin. One cannot exist without the other. Nettlefold also points out that professionalism must develop first. For this reason this section will first examine the concept of professionalism as treated in the literature and then go on to look at the concept of paraprofessionalism. This section will also attempt to relate these concepts to LIS education and training particularly, as professional and paraprofessional LIS education and training are central to the current study.

2.9.1 Professionalism

The issue of the professional status of librarianship has over the years been a much-debated one in the literature and still for many, remains an unresolved issue. It is not the intention in this section to provide a detailed coverage of this debate but merely to point out the major issues involved so that the concept of paraprofessionalism may be discussed in a meaningful context.

Much of the debate regarding the professional status of librarianship has involved the essential elements of a profession and an analysis of the extent to which librarianship possesses these elements. According to Gates (1976: 74) some of the essential

elements of a profession that have been generally agreed upon by analysts of the subject are:

- A systematic theory or corpus of knowledge that delineates and supports the skills that characterise the profession;
- A level of authority that comes from extensive education in the systematic theory;
- Community sanction and approval of this authority as expressed in the conferring on the profession of such powers as accreditation, formulation of standards of performance and the establishment of rules for admission into the profession;
- A code of ethics that regulates the relations of professional persons with clients and colleagues;
- A professional culture sustained by formal associations, consisting of its values, norms and symbols and having at its centre the career concept; and
- A service orientation involving a strong consciousness of the responsibilities of the profession towards clientele and community.

There has been no unanimity as to whether librarianship can be defined as a profession when it is measured against the above essentials. While some acknowledge that librarianship has attained many of the essential elements that characterise a profession, there are those who believe that it has not achieved professional status (Gates 1976: 75). The latter have questioned, for example, the intellectual content of its knowledge base, the rigour of its educational requirements, the extent of its authority, the strength of its code of ethics, the degree of external recognition which it is accorded, the extent to which its associations promote the economic well-being of members, and the service motivation of librarians. Sociologists, in particular, have concluded that librarianship is unlikely to reach the goal of becoming a fully-fledged profession like medicine or law.

Nettlefold (1989: 522) has pointed out that “professionalism can be considered not as a matter of yes or no, but rather as a range of possibilities, which, over the years has progressed towards ‘professionalism-yes’”. The researcher finds this view of

professionalism appealing and believes that it is for this reason that there exists in all parts of the world associations of librarians and libraries whose purpose is the furtherance of the goals of librarianship. In fact SAILIS, the erstwhile professional LIS body in South Africa, in its 1987 *Standards for education for library and information science* acknowledges that “all professions are not professionalised to the same extent” and as part of its goal to increase the professionalisation of librarianship it stipulated in its standards for the education of professional staff, the fostering of attributes such as professional competence, a scientific or scholarly approach, a sense of social awareness and understanding, and a service-oriented approach (South African Institute for Librarianship and Information Science 1987: 5-6, 16).

There have been others such as White (1986: 276) who have argued that librarianship has been evaluated in the past by inappropriate sociological criteria. They reject the traditional sociological definition of professionalism that is based on comparisons with established professions, such as law and medicine, in favour of field-specific definitions of professionalism and an inward-looking evaluation of the principal traits of the occupations seeking professionalism. Abbott (1998: 431-432) supports a similar view. According to Abbott textbook sociology calls librarianship as well as other occupations such as nursing and social work, semi-professions because they do not fulfil all the criteria of a full profession such as law or medicine. For Abbott what really matters about an occupation, librarianship or any other (law and medicine included), is its relation to the work that it does.

It is evident that the issue of the professional status of librarianship is an unresolved one and will continue to be debated in the literature with some viewing it as being simply an occupation or a semi-profession, others believing it to be a full profession and yet others seeing it as being on its way to becoming a full profession.

2.9.2 Paraprofessionalism

The concept of paraprofessionalism has already been introduced in this chapter, first in passing when an overview of LIS education and training in selected parts of the world was discussed and, more specifically, in the discussion of LIS education and

training in South Africa. In summary, a paraprofessional is generally understood to mean someone who works alongside the professional, usually in a technical capacity. According to Kerkham (1988: 8) paraprofessionalism is a well-established career option in the medical field with paramedical staff such as radiographers, medical technicians, pharmacists and nurses working alongside doctors in a support role. A qualified nurse, for example, is fully trained to perform a parallel function alongside that of the doctor. It is a distinct career direction that can be furthered by advanced studies. Similar situations, although not always so clearly defined, apply to other fields and hence there are ophthalmologists and optometrists, dentists and dental technicians, and engineers and engineering technicians. As pointed out several times in the previous section, paraprofessionalism is an alternative or parallel career direction and not a step in the direction of professionalism.

Others (Nettlefold 1989; Horton 1990) have supported this concept of paraprofessionalism. They explain that comparisons of paraprofessionals in libraries and in medical and social services, education and architecture identify paraprofessionalism as complete in itself and not an introduction to professionalism in these various fields. Nettlefold (1989: 523) concludes that a comparable definition of paraprofessionalism to that of professionalism is:

The knowledge, use and understanding of a range of specific techniques, procedures and services that can be undertaken according to a set of predetermined rules, without the need to exercise professional judgement in decision-making ... The predetermined rules consist of guidelines and precedents established by a professional.

Others (Bowman 1988: 229; Weihs 1997: 44) reiterate this by pointing that while the paraprofessional has an operational focus, the professional has a developmental or conceptual focus. Paraprofessional skills are usually acquired through a combination of full or part-time education and on-the-job practice and training. While the development of education and training for paraprofessionalism in LIS services is a relatively recent phenomenon (1960s and 1970s), the development of paraprofessionalism in LIS services has been part of the evolution of LIS professionalism since the late nineteenth century, with many librarians working as

paraprofessionals in all but name. As evidenced in the sections under 2.8, professional associations have been crucial in guiding paraprofessional education and training and in regulating skill requirements for paraprofessionals and this has been fostered by the growth, in many countries (including South Africa), of non-university higher education which has identified paraprofessional education and training in general as a primary interest.

The literature reflects that over the years and in different parts of the world various terms have been used, and often not consistently, to identify the LIS services paraprofessional. Some of these include library clerks, library assistants, library technicians, library technical assistants, library associates, library aides, paralibrarians, quasi-librarians, assistant librarians, non-professionals, paraprofessionals, pre-professionals, sub-professionals, semi-professionals; support staff and even librarians (Gillen 1995: 5; Rodgers 1997: 1; Froehlich 1998: 445). However, the term 'library technician' seems to have found the widest favour in libraries, especially in the countries selected for discussion in section 2.8. Surprisingly, this is not the case in South Africa (as evidenced in discussions in section 2.8.6 and in the empirical part of this study), despite the fact that the countries discussed in section 2.8 have traditionally influenced LIS education and training in South Africa. The term 'library assistant' which according to Rodgers (1997: 2) "is a very old title, and still in general use" seems to be the preferred term in the South African LIS services context. This is despite the fact that Kerkham (1988), the pioneering work on the issue of LIS paraprofessionalism in South Africa, uses the term 'library technician' extensively.

Nettlefold (1989: 524) is careful to point out that clerical staff, such as secretaries, typists and others with general office-related skills, also assist librarians but they are not considered to be paraprofessionals. They constitute the third tier of any three-tier staff structure that incorporates paraprofessionals at the middle level. The distinguishing feature is that although paraprofessionals may do some clerical work, most of their tasks are unique to library and information science for which they receive specific training. Clerical staff, on the other hand, are generalists with horizontal career mobility into and out of libraries. Oberg (1992: 104-105), while also

making reference to the proliferation and lack of standardisation of terminology regarding paraprofessional positions, is also careful to point out that clerical staff in libraries are not paraprofessional staff but goes further to make clear that there are also other classifications of staff in libraries who are not LIS services paraprofessionals. Some of these include student assistants, vehicle drivers and non-librarian professionals such as personnel officers, accountants, systems analysts and computer programmers. Paraprofessionals then seem to be a subset of the broader universe of support staff.

As pointed out earlier, the development of paraprofessionalism in LIS has been part of the evolution of LIS professionalism since the earliest days of librarianship. However, more recently there have been forces that have contributed to a more pronounced emergence of the paraprofessional category of workers in LIS services, so much so that in many cases today paraprofessionals constitute the majority of workers in libraries. The application of new technologies to processes and procedures in libraries and information services has made it possible for paraprofessionals to carry out many tasks that were traditionally reserved for professionals, that is, librarians (Mugnier 1980: 1; Webb 1988: 111-112; Nettlefold 1989: 524; Johnson 1991: 256; O'Brien and Cowans 1995: 19; Rodgers 1997: 8; Wilson and Hermanson 1998: 478). For example, cataloguing has been revolutionised through the use of shared databases provided by bibliographic utilities, and acquisitions of materials has been standardised and streamlined through computerisation. These areas of librarianship and information work, especially cataloguing, which once had been the exclusive preserve of professionals, have become more technical with less need for the interpretive skills of a librarian. This has led to a greater need for library technicians than librarians on the technical services staff of libraries. In fact this trend together with the need to cut costs has led to some libraries outsourcing part of their cataloguing and acquisitions functions, which has further increased the need for library technicians (Webb 1988: 111; Weihs 1997: 46). The trend of traditionally professional duties in libraries being moved down the hierarchical chain to paraprofessionals has also been precipitated by librarians, particularly academic librarians, assigning to support staff tasks that they no longer have time to perform (or have come to consider routine) as a result of "their newfound faculty status" with its requirements of "teaching, research and

governance” (Oberg 1992: 99). This has resulted in many support staff now being assigned duties that once characterised the work of librarians. Other forces that have contributed to the emerging prominence of paraprofessionals in the library work hierarchy include: the direct substitution in libraries of more expensive graduate professional librarians with less expensive paraprofessionals as a cost saving measure in times of declining or static budgets (Johnson 1991: 256; Oberg 1992: 99-100; Harris and Marshall 1998: 577); the shortage of qualified librarians and problems relating to their recruitment and retention (Mugnier 1980: 1; Nettlefold 1989: 531; Oberg 1992: 99) and the availability of a larger and better educated human resource pool than has previously been available to libraries, as a result of a growing paraprofessional movement (Mugnier 1980: 1).

These forces have over the last thirty odd years dramatically transformed the role of the LIS paraprofessional. The level of work performed by paraprofessionals has been significantly upgraded as the result of the creation of new tasks and the redistribution of old ones. The process has also provided the opportunity for the professional librarian’s work to become more complex and sophisticated and to exhibit a service orientation rather than focusing on routine and procedures. Professional librarians can now play a more active role on the management and administration of their organisations. They can become involved in analysing the specific needs of the environment in which they function, develop appropriate missions and goals to meet these needs, and manage the human resources to implement the programmes serving their constituents. This process and the impact that it has had on the responsibilities of both the paraprofessional and the professional librarian has resulted in “a shift in the knowledge base” (Nettlefold 1989: 524) that has occurred in the process of professionalisation. This “shift in the knowledge base” has necessitated the development of suitable education and training programmes for library technicians. It has also forced university academic departments and library schools “to reassess their curricula and to emphasise the professional aspects of their courses and seminars” (Weihs 1997: 43). In fact there should be close co-operation between the university faculties responsible for the basic education and training of professional librarians, and paraprofessional education and training providers in developing appropriate education and training programmes for LIS paraprofessionals. It is precisely for this

reason that the researcher has stressed in section 2.5 the importance of closer co-operation and articulation between university and technikon LIS education and training providers.

Events outlined above have led to the establishment of a new category of library workers, the paraprofessionals, who occupy the middle stratum of a three-tier hierarchical staffing structure. Paraprofessionals are generally ranked below librarians but above clerical employees in this hierarchical structure. However, in South Africa, as evident from discussions in section 2.8.6, such a clear-cut hierarchical structure to accommodate paraprofessionals in LIS services has yet to be established. According to Oberg (1992: 100) who is commenting largely on the North American situation, today the legitimacy of the library paraprofessional classification is generally recognised. However, the tasks assigned to these positions, the preparation required of the incumbents and the reward structures vary widely. The legitimacy of the library paraprofessional classification is, however, not generally recognised in LIS services in South Africa as evident in discussions in section 2.8.6.

As already mentioned in section 2.8.6, over the years there have been specific documents (emanating from various countries, including South Africa) that have attempted to distinguish between professional and paraprofessional LIS services tasks. While the tasks assigned to LIS services paraprofessional positions may vary somewhat from institution to institution, the literature reveals that tasks generally assigned to these positions may be summarised as follows (Weihs 1977: 429-430; Kerkham 1988: 9-10; Nettlefold 1989: 525; Halsted and Neeley 1990: 62):

- **Technical services:**
 - **Acquisitions:** verify and check requests; prepare purchase orders; receive and claim orders; administer bookkeeping orders; administer serials records; supervise acquisitions department.
 - **Cataloguing:** verify and check cataloguing information, add holdings and location information to records; do copy cataloguing using computerised networks; do original (descriptive) cataloguing of straightforward materials; maintain authority files and public catalogues, supervise processing of materials.

- **Physical stock maintenance:** supervise the re-shelving of materials; supervise proper physical arrangement of shelving and maintenance of proper physical environment; assist in weeding; delete catalogue entries; compile disposal lists; prepare material for binding; administer binding records; do simple repair work; restore materials (after specialised training).
 - **Multimedia/Audio-visual hardware and software:** assist in the selection and purchase of hardware; maintain audio-visual equipment in good order; set up, adjust and operate audio-visual equipment; prepare audio-visual programmes; supervise a multimedia/audio-visual centre.
 - **Reprography:** assist in the selection and purchase of equipment; maintain reprographic equipment in good order; set up, adjust and operate reprographic equipment; supervise a reprographic centre.
 - **Computer equipment:** set up and operate simple systems; operate large library systems.
- **User services:**
 - **Circulation:** administer all aspects of circulation control (both manual and computerised), including reserve systems, statistical reporting systems and inter-library loan systems.
 - **Reference:** conduct initial reference interviews and refer to reference librarian if necessary; answer basic reference queries using standard reference tools; conduct database searches using a given search strategy; compile bibliographies on defined subjects; assist in current awareness services; maintain loose leaf publications; administer pamphlet and similar information files.
 - **Publicity:** assist in library orientation programmes, assist users in use of catalogues and in finding materials; assist in planning and set up library displays and exhibitions.
- **Administrative services:**
 - Supervise a small branch, department or section of a large library system. The paraprofessional may even be in charge of a small business, research

or government department library where the professionals employed by the organisation in which the library is located generally do the selection of library material.

In view of these tasks that are generally assigned to paraprofessional positions, paraprofessional education and training programmes have come to focus on day-to-day operations in libraries and is largely skills-based. This is logical in the light of discussion at the beginning of this section that paraprofessionals engage largely in operational and procedural tasks. Davidson-Arnott and Kay (1998: 541) explain that the types of skills that are acquired through these programmes take library technicians beyond the work of library clerical staff. The emphasis on skill acquisition is, however, balanced with a modest amount of knowledge-based learning. This learning provides a context for the skills that students are taught, socialises them into the profession and helps them to understand their responsibilities.

In summary, some of the issues that have come out of this discussion on paraprofessionalism include:

- Paraprofessionalism is an alternative career direction and not a step in the direction of professionalism;
- While the paraprofessional has an operational focus (application of pre-determined techniques and procedures), the professional has a conceptual focus (involving exercising professional judgement and decision-making);
- While the emphasis in paraprofessional LIS education and training is on skills acquisition (the 'how to' of LIS services), it is balanced with a modest amount of theory to provide a context for the skills that students are taught;
- There have been many forces that have contributed to a trend of traditionally professional duties in LIS services being moved down the hierarchical chain to paraprofessionals and which has resulted in a shift in the knowledge base of both LIS services professionals and paraprofessionals; and
- Paraprofessionals in other countries are generally ranked below librarians but above clerical employees in, for example, a three-tier hierarchical structure.

Such a hierarchical structure in LIS services that accommodates paraprofessionals, is yet to be established in South Africa.

2.9.3 **Professionals and Paraprofessionals in the LIS services work environment**

Nettlefold (1989: 523, 531) explains that a difference between established and aspiring professions is that the former, being confident in the security of their own professionalism, actively encourages paraprofessionals to take over the less-intellectually demanding aspects of their work thus enhancing the professionals' status. The latter, however, often resists paraprofessionalism initially, afraid of a claim on their exclusive skill jurisdiction. However, since professionalisation is a gradual process, as the aspiring professionals redefine and upgrade their core of knowledge and skills, confidence in their own professionalism grows. They then begin to act as established professions and encourage paraprofessionalism. Thus accountancy, law and medicine actively promote the development of accounting technicians, legal assistants and paramedics respectively. This explains why librarianship, considered by many to be an aspiring profession, initially opposed paraprofessionalism (Evans 1979: 84), but as their professionalism has grown, there has been a gradual and perhaps inevitable acceptance of paraprofessionalism as an intrinsic part of library and information service.

While librarians have over the years become more comfortable with paraprofessionals, the latter seem to sometimes experience competition and some resentment on the part of other support staff in libraries, particularly clerical staff. This is particularly so in those libraries where there is still no job category reserved exclusively for trained paraprofessionals (a situation reported to be largely the case in libraries in South Africa as evidenced from discussions in section 2.8.6). In such instances LIS services paraprofessionals often compete for support staff positions with individuals without specialised training of which the latter are often resentful as this reduces their chances of advancement and job mobility. This emphasises the need for a clearer definition of the boundaries between tasks performed by paraprofessionals and clerical staff or for that matter between paraprofessionals and

professionals in LIS services. In fact over the years there have been calls in most countries for a clearer definition of these boundaries (Webb 1988: 117-118). The Le Roux (1985) document in South Africa and others mentioned in section 2.8.6 have been responses to such calls. However, there is still a lack of clarity on this issue in the LIS sector. The current study attempts to address precisely this issue by trying to establish what are the job titles and key job tasks of posts in the LIS sector that require the knowledge and skills imparted by professional and paraprofessional LIS qualifications. This is also relevant to the issue of 'downshifting' and the resulting 'role blurring' referred to in the literature.

Several forces (discussed in section 2.9.2) have driven downward onto paraprofessionals many of the duties formerly considered to be fully professional. Hence the 'downshifting' of duties in the hierarchical work chain. However, this downshifting of duties has resulted in significant task overlap between librarians (professionals) and paraprofessionals. This task overlap blurs the distinction between professionals and paraprofessionals. Hence the 'role blurring' phenomenon (Oberg 1991: 3; 1992: 100). Oberg explains that in all fields there is a degree of overlap in the work performed by professionals and paraprofessionals. However, it is the width of the zone of overlap that is the issue. The width of this zone is determined by the relative maturity of the profession. One is likely to find a wider zone of overlap in librarianship and social work, which are often considered to be aspiring professions, compared to established professions such as medicine or architecture. This 'role blurring' often confuses the public who perceive professional librarians and paraprofessionals as doing the same thing. The inability of the public to distinguish between librarians and support staff can erode the quality of contact between the library and its patrons, discourage individuals from entering the profession, depress the salary and status of LIS services professionals and paraprofessionals as organisations (employers) and government (that oversees legislation) do not have a clear perception of what exactly it is the LIS services professionals do, and thus generally block the advancement of the profession. It is for this reason that LIS professionals and paraprofessionals need to communicate a clearer picture of who they are and what is it that they do. Hence the relevance of this study's attempt to establish what are the job titles and key job tasks of posts in the LIS sector that require

the knowledge and skills imparted by professional and paraprofessional LIS qualifications.

Thus while the challenge to LIS services professionals, particularly librarians, is to redefine their roles in a changing information environment and, very importantly, to project a clearer picture of what is it that they exactly do, paraprofessionals too need to better define their roles in LIS services. To this end paraprofessionals in many parts of the world, notably, the United States of America, Canada and Australia have organised themselves into paraprofessional and general support staff associations or even units within professional associations. These structures have been used as a means of lobbying for career ladders in LIS services to accommodate their increasing technical expertise, better salaries, staff development opportunities as well as a means of attempting to better define their roles in LIS services *vis-à-vis* LIS services professionals. In Australia for example, library technicians have found that much progress has been made in technician acceptance, employment, job classification and other areas as a result of the formation of the Library Technician Section of the Australian Library and Information Association (ALIA) (Bowman 1988: 233). Possibly in South Africa too, LIS services paraprofessionals might be able to achieve more in terms of employment opportunities and recognition as a category of staff for whom career ladders in LIS services should be created, if they more actively organised themselves as has happened in other parts of the world.

The main point of the discussion in this section seems to be the need for a clearer definition of boundaries between professionals, paraprofessionals and clerical staff in LIS services.

2.9.4 **LIS professionalism versus LIS paraprofessionalism**

There are many attempts in the literature to understand the fundamental difference between professional and paraprofessional LIS services work, some of which have already been alluded to in previous sections. Such comparisons invariably involve looking at the fundamental difference between education and training for LIS professionals and paraprofessionals, an issue that is directly relevant to the current

study that involves a comparison of university and technikon first level LIS qualifications. Scholars (Weihs 1997: 44) have argued that while librarians are taught to understand the relationship between the task at hand and the significance of library and information work to society in general, paraprofessionals are taught to understand how the task fits into an individual library's operation with emphasis on task performance rather than theory and other general education that is characteristic of vocational education located at the graduate level in a university setting. The former type of education and training, because of its general nature and lifelong value, equips the professional to function in any LIS services context while the latter type of education and training, even though it affords the individual more practical and technical expertise, has a narrower focus on LIS processes and procedures prevalent at the time. Thus Wilson and Hermanson (1998: 480) point out that while both professional and paraprofessional education and training programmes may deal with similar subjects (and this is evident in the South African context - refer to Appendices A and B that include lists of subjects for both professional and paraprofessional programmes), the former is more likely to emphasise the management, development creation and research sides of the curriculum. The paraprofessional programme is more likely to deal with pragmatic aspects. This fundamental difference has serious implications for the type and level of posts in LIS services that each of these categories of individuals can hold, an issue which is crucial to the current study.

Wilson and Hermanson (1998: 480) make the useful suggestion (and something that the researcher regards as important) that students while still at education and training institutions should be taught this fundamental difference between professionalism and paraprofessionalism in the LIS services context, so that once they are in the work environment the paraprofessional and the professional would be aware of each other's strengths and roles and the nature of their working relationship. This would help to eliminate much tension that currently characterises the professional/paraprofessional relationship in LIS services as it would provide much needed clarity of the point that professionalism and paraprofessionalism are alternative or parallel career paths each with their own career progressions and that paraprofessionalism is not a step in the direction of professionalism. However, both professionals and paraprofessionals are crucial to an LIS service. Therefore, there should be institutions that provide

education and training for each of these types of LIS services staff with co-operation and linkages between them to allow for articulation between professionalism and paraprofessionalism.

The main issues in this discussion are:

- While education and training for professionals is more general and emphasises the philosophical, management, development creation and research sides of the curriculum, paraprofessional education and training is narrower in focus concentrating on the pragmatic side of specific LIS services and procedures. This has serious implications for the types and levels of posts that each of these categories of individuals may hold in an LIS service;
- There is a need for clarity on the relationship between professionalism and paraprofessionalism in the LIS services context; and
- There should be possibilities at the education and training level for articulation between professionalism and paraprofessionalism.

2.10 **Library and/or information science: the discipline**

As the current study is located in the discipline of library and/or information science, it is important to look at some of the issues that are relevant to this discipline.

2.10.1 **Library science versus information science**

While it has been explained in Chapter 1 how the term library and/or information science is used in this study, it should be noted that there are considerable difficulties associated with the use of terminology here. For example, what in some academic institutions is referred to as library studies is often in other academic institutions referred to as library science. The situation is complicated further by some academic institutions employing the terms information studies or information science in the names of schools or departments. Sometimes both the words 'library' and 'information' are used to refer to academic departments, professional associations and journal titles in this discipline, and at other times either one of these terms are used

with the latter in more recent times being the more popular choice. It is for reasons of convenience in this rather inconsistent situation that this study has opted to use the term library and/or information science (which for brevity is abbreviated as LIS) when referring to this particular discipline.

There is much debate in the literature as to what lies behind these various terms. For example, Martin (1987: 130) intimates that while library studies is a relatively straightforward term to do with the professional education of librarians, information studies is a much more elusive concept. At one level it can serve as an umbrella term for the study of information, at another it refers to the professional education of librarians. Stieg (1992: 10-11) on the other hand, claims that there is a lack of an adequate definition for both librarianship (or library science for that matter) and information science. According to Stieg, while librarianship may not have succeeded in defining its knowledge base, the younger discipline of information science is even less definite in its identity. He points out that many definitions of librarianship exist, but “they tend to be essays rather than pithy statements” and often lean toward describing what the librarian does rather than exploring intellectual foundations. Information scientists too have experienced difficulties in defining their discipline and agreement only exists at a general level, especially that the discipline is in state of continuous flux. Some commentators have questioned the use of the word ‘science’ in the discipline/s under discussion. They have pointed out, for example, that for information science to become a real science it would have to formulate its own laws, something that is unlikely to happen (Martin 1987: 131). Notwithstanding this ongoing debate in the literature that has been searching clarity on the various terminology used to describe the discipline/s under discussion, academic programmes, departments or schools have gone on to change their names to include ‘information studies’ or ‘information science’ or ‘information management’. According to Broadbent (1985: 75) while some of these changes may be seen as cosmetic and designed to assist with image problems associated with the discipline of library science, on the whole the changes in name do reflect a real shift in orientation for staff, students and courses. Educators and institutions have been responding to the changing information and technological environment.

Information science emerged into the arena of library science in the 1960s. Library science educators could not ignore the fact that an entirely separate field of study was developing in a way that threatened the foundations of library science (Grotzinger 1986: 459). Librarianship, before the revolutionary effects of information technology, had focussed on developing physical collections of books and other materials in library buildings staffed by people who had been trained to select, acquire, organise, retrieve and circulate these materials. However, evolving information technology comprising computer, communication, media and reprographic technologies have revolutionised the services and management of libraries and information centres. Computer technology has affected the acquisition of library materials; the management of serials; the preparation of bibliographic tools such as catalogues and union lists; services such as reference, circulation and interlibrary loan; and administrative record keeping and data processing (Sengupta and Umarani 1996: 75). As a result of the revolutionary effects of information-handling technologies library and information services have extended beyond “physical collections and buildings to the virtual world of the Internet” and the focus became information provision in a variety of contexts (International Federation of Library Associations and Institutions 2000: 1). According to Grotzinger (1986: 459) it was in this evolving context that “independent degree programs in information science ... began to cut into the available pool of students and to threaten the credibility and existence of library schools”. A number of library schools began to establish an information science track or sub-curricula within their basic professional programmes. Crowley and Brace (1999: 77) point out that by the 1970s many of the schools of library science in the United States of America had begun to change their names to schools of library and information science. Martin (1987: 130) believes that this inclusion of information science into the basic professional library science programmes was partly in response to the challenge of new information-handling technologies that had been evolving and partly “to provide a more satisfactory vehicle for studying the generation, use and transfer of information.” Information science represented “a conscious attempt to introduce academic rigour and standardised research methodologies into an area which evolved on a largely *ad hoc* and pragmatic basis” (Martin 1987: 130). Wilson and Hermanson (1998: 487-488) reiterate this by saying that for some time there had been an increasing call for an intellectual base in library science that could stand on its

own rights. There was a need to unify practice and theory and many leaders in the field believed “information science is what will bring the profession to full flower”.

The relationship between library science and information science has long been of interest to the professional and academic LIS community as there has been much uncertainty about this relationship. According to Vakkari (1994: 6-7) there are two basic conceptions concerning this relationship. Firstly, library science and information science may be regarded as two separate disciplines with some common interest and secondly, they may be viewed as together forming a single whole. A variant of the latter conception is to view one as part of the other. Adherents of the view that library science and information science are two separate disciplines, define librarianship as being devoted to the organisation, preservation and use of human graphic records, and information science as a field devoted to scientific inquiry and professional practice addressing the problems of effective communication of knowledge and knowledge records among humans in the context of social, institutional and/or individual uses of and needs for information. Although this group sees a strong common ground between library science and information science, it believes there are stronger arguments for separating them. The common basis is in the shared social role and in the general concern with the problems of effective utilisation of graphic records. The differences between library science and information science are believed to be:

- the selection of problems addressed and the way they are defined;
- theoretical questions asked and the frameworks established;
- the nature and degree of experimentation and empirical development and the resulting practical knowledge-competencies derived;
- the tools and approaches used; and
- the nature and strength of interdisciplinary relations established and the dependence of the progress and evolution on interdisciplinary approaches.

These differences, according to those who take the view of two separate disciplines, warrant the conclusion that library science and information science are two different fields in a strong interdisciplinary relation rather than the same field or one as a special case of the other (Vakkari 1994: 7-8). Stieg (1992: 14) interestingly points out that while librarians and library science educators have been ready to embrace

information science and are largely proponents of the view that sees the two disciplines as together forming a single whole, information scientists prefer to emphasise and maintain their separateness.

Among those who view the relationship between librarianship and information science as a unified discipline are those who see information science as the generic term and library science as a special activity within information science. For example, some commentators from this group see library science as being concerned with the information processes that take place in libraries and for this reason, for example, information retrieval is called reference work or information management is named library management (Vakkari 1994: 9-10). According to Stieg (1992: 13) information science is in this instance viewed as a “theoretical discipline, incorporating librarianship as one application”. Thus Shera (1972: 293), writing in the early 1970s, saw information science as contributing “to the theoretical and intellectual base of librarianship”. A significant feature of this unifying concept of library science and information science is that information science is not tied up with any particular information organisation. Consequently, “the transition from library science to information science has broadened the scope” of the discipline of library science (Vakkari 1994: 11). Buckland (1986: 784) supports this view when he says that in recent years there has been a broadening of the scope of librarianship to include in library and information studies not only libraries of many kinds but also online retrieval services, archives, databases, records management and documentation of many kinds. Buckland believes that “library service should ... be viewed as one member of a family of retrieval-based information services”. A similar point is also made by Lor (1990: 73) who says that “library science can be seen as one of a range of applied science disciplines, such as museum science, archives science and information management, which are based *inter alia* on information science”. Stieg (1992: 13) points out yet another view that might be considered to fall under the “unifying concept” of the relationship between the two disciplines. This view emphasises the application of technology to the traditional tasks of the library. It sees information science as an area of inquiry that could provide the librarian with useful tools to expedite library services, that is, information science is seen as “a junior partner in an ancient enterprise [librarianship]”. Stieg (1992: 13) also mentions that

there is 'library and information science' that may be considered to be "the new federated discipline". Thus the issue of the relationship between library science and information science continues to be debated in the literature. The precise nature of the relationship is difficult to define since both library science and information science are in a state of continuous flux.

However, some commentators have expressed concern that the new technology that has come to be associated with information science, while no doubt having a place in library and information science, dominates much thought in teaching and practice. Sengupta and Umarani (1996: 75-76), commenting on the fact that information technology constitutes almost the entire syllabi of many LIS education and training programmes, remark that while information technology has become an integral part of LIS, one has to remember that it is a 'means to an end and not the end in itself'. Ratcliffe (1987: 113) reiterates this when he says, "new technology is an aid to libraries, not a substitute for them". Ratcliffe, quoting statistics for the United Kingdom that reveal that a significantly large number of professional library and information workers are still employed in the traditional library market, warns against the "wholesale abandonment of those very essential elements in library education which are reflected in the daily working lives of every librarian". Ratcliffe goes on to make the point that even with the information specialist who possesses information technology skills as well as an intimate knowledge of the subject concerned, first among the requirements of this specialist will be basic knowledge of traditional library functions because the essential problems of organisation, classification, filing and retrieval will remain as central matters in any information system. Lor (1990: 73) makes a similar point. He points out that the past few decades have seen a trend throughout the English speaking world, where the term 'information' has been introduced into the names of what started out as schools or departments of librarianship or library science, with some schools or departments going further and completely omitting the word 'library' from the names of schools or departments and their qualifications. However, Lor points out, despite this trend much of what is taught as information science is still recognisable as basically librarianship (for example, cataloguing and classification and reference work) with some less conventional information organisation and dissemination thrown in. Hayes (1988: 312-313) too

makes this point when he says that the library is still a vital focus for the library school, “whatever the name”, but at the same time acknowledges that today there is no academic programme that does not include, within its goals and objectives, automated cataloguing, online reference retrieval and experience with the use of computers. Ratcliffe (1987: 113) implies that an appropriate balance must be maintained between library science and the technology associated with information science when he points out that library and information schools and departments need to incorporate “a thoroughgoing acquaintance with the practical as well as theoretical nature of librarianship which includes an awareness of the applications and implications of IT”.

While the literature does point out the importance of maintaining this balance in library and/or information science education and training so that LIS services workers are appropriately prepared for the library market which according to the literature is still a significant consumer of LIS education and training products, the literature also alerts us to the growing significance of the emerging information market. Cronin (1985: 11) pointed out in the 1980s already, that there was a rapid growth in the number of information-related occupations and in the number of professionals filling these roles. At this time Cronin also pointed out that while in the past library and information schools and departments monopolised the education and training of professional information workers, this situation was fast changing. The growth in the number of information-related occupations and the parallel growth in information consciousness generally, has resulted in an increasing number of higher education institutions moving into the business of providing professional information-related education and training programmes. These programmes are variously designated ‘Information technology’, ‘Informatics’, ‘Information systems analysis and design’ and various other such names and represent an increase in the variety and sophistication of programmes designed to produce a new wave of information specialists. One of the effects of the ‘information revolution’ has been to de-regulate the training market and to create opportunities for expansion among institutions not traditionally associated with training for information. Lor (1990: 70) also makes reference to the “growing acceptance of the strategic value of information and that the proportion of workers involved primarily in the handling of information is growing”.

He also points out that this emerging information market is diffuse and difficult to define as it “cuts across conventional industries and sectors”. It is for this reason that Cronin (1985: 14) refers to it as the “invisible marketplace”. Bruce (1999: 189-190), writing at the turn of the century, talks about information flow now being global and how institutions and organisations are increasingly recognising that the “creation, management and utilisation of company-wide information and knowledge are of strategic importance”. He makes the crucial point that in this environment where information is the key ingredient in many kinds of work, the individuals working with the creation, diffusion and utilisation of information do not necessarily regard themselves as information professionals belonging to a specific profession even though they do concede that they need to learn how to work better with information. While this further emphasises the “diffuse and difficult to define” nature of the emerging information market mentioned above, according to Bruce (1999: 190), what needs to be identified and catered for by education and training programmes are “the essential competencies of a workforce equipped to function in learning organisations and knowledge-based businesses”.

Many writers (Broadbent 1985: 76; Martin 1987: 134; Lor 1990: 71) point out that no particular profession or field of study has a monopoly on job opportunities in the emerging information market. Lor (1990: 67, 71) points out that although librarians and related information professionals such as archivists, records managers and documentalists can contribute valuable expertise and competencies to the emerging information market, they are not the only ones in the field. Since information technology, especially computers and data communications, is extensively used in the organisation, processing and dissemination of information, computer scientists are well placed to move into this field. Computer science departments have been developing programmes in information systems and business data processing. Business schools have also developed programmes in management information systems and information management. In fact Crowley and Brace (1999: 77) point out that information science, as a profession will be engaged in competition “not with library science, but with the business-related profession of management and information systems”. Further evidence of the survival battle for the discipline of LIS among these various disciplines competing for a share in the emerging information

market, is the often made comment that now that there is IT, and especially the Internet, there is no need for libraries.

Hayes (1988: 313) reports that some library and information school graduates have been finding employment in situations other than libraries. According to Hayes examples of the emerging information market in which these graduates have been employed include database services, as entrepreneurs, in small information enterprises, in publishing and the book trade, and in information resource management in government and industry. These markets place different demands on the goals and objectives of library and information science education and training programmes. Thus while the emergence of the information economy has created new opportunities for providers of LIS education and training, it has also presented some challenges. It has already been suggested above that jobs in the emerging information market need not necessarily be filled by graduates from library and information schools or departments. In fact Hall (1985: 11) observed in the 1980s already that the emerging information market has been “attracting recruits from outside traditional librarianship and information work”. Thus the task facing these schools or departments is to decide whether to concentrate on the traditional library market, whether to be in competition with other ‘non-traditional’ providers and attempt to satisfy the demands of the emerging information market or whether to attempt to meet the needs of both markets. There is no simple answer. Each school or department, in facing this challenge, will be constrained by its own particular circumstances, for example, government policy, faculty shortcomings, financial issues, campus politics and many other issues. Furthermore, even if a school or department has decided on a particular route it might be difficult for it to “steer a sure course” because of the shifting and changing nature of the information landscape (Cronin 1985: 10-11). Van House and Sutton (1996: 145) warn “that the field is changing: the boundaries, players, capital and rules of competition are all in flux”. Thus while there is considerable pressure on library and information schools and departments to innovate and embrace the emerging information market, in practice not all schools and departments are able to change as swiftly or as effectively as they would like. Some schools or departments might be able to establish themselves as providers of high-quality information training programmes while others will be left with only the

traditional library market to cater for. However, Lor (1990: 71) points out that the “staid and unenterprising image of the librarian” clings to schools and departments of library and information science and this makes them “unlikely providers of education for the glamorous new information professions”. Myers (1986: 655) also sees the image of the librarian as a “stumbling block” here. Perhaps for this reason then the suggestion by Broadbent (1985: 76), Lor (1990: 70) and others that in attempting to meet the needs of the emerging information market, library and information schools or departments should offer programmes in conjunction with other schools or departments, would be a good idea. Broadbent’s (1985: 76) motivation, however, in suggesting this option is because she believes that no one faculty or department on its own can offer the range of educational programmes and courses for information professionals with the depth and breadth required.

The main points emanating from the discussion in this section are:

- There is ongoing debate in the literature seeking clarity on the various terminology used to describe the discipline of library and/or information science;
- There are a variety of views in the literature on the relationship between library science and information science and the issue continues to be debated. The precise nature of the relationship is difficult to define because both library science and information science are in a state of continuous flux;
- The new technology that has come to be associated with information science seems to dominate much thought in LIS teaching and practice. An appropriate balance should be maintained between library science and the technology associated with information science;
- The growth in the number of information-related occupations (the emerging information market) and the parallel growth in information consciousness generally, has resulted in an increasing number of higher education institutions moving into the business of providing professional information-related education and training programmes. No particular field has a monopoly on job opportunities in the emerging information market; and

- The emerging information market, in which some LIS graduates have been finding employment, has placed new demands on the goals and objectives of LIS education and training programmes.

2.10.2 **General education in library and/or information science education and training**

The concept of general education or liberal education or liberal arts education has been discussed in section 2.2. While section 2.2 looked at the concept of general education in higher education generally, this section looks specifically at general education in library and/or information science (LIS) education and training specifically, an issue that is being investigated by the current study.

Section 2.8 in this chapter that provides an overview of LIS education and training in selected parts of the world in order to ascertain international trends in LIS education and training, reveals that in South Africa and internationally it has become a general trend that professional LIS education and training is established at the graduate level. This means that a graduate degree in LIS education and training is generally required for entry into the profession.

There have been various arguments over the years in the literature as to why a bachelor's degree is considered to be an important part of professional LIS education and training. Wiegand (1986: 391), writing in the American context, points out that by the early 1920s it had become generally accepted that a college (liberal arts college) graduate had a "deeper understanding of the classic objects of cultural and intellectual authority" than a non-college graduate. Consequently it was assumed that college graduates could interpret library collections to readers seeking advice, much better than non-graduates. By the mid-twentieth century educators had become convinced that exposure to a good under-graduate liberal arts curriculum would develop the kind of moral character and personal ethics which would serve as a sound foundation for most types of professional LIS service.

Shera (1972: 327-329), writing in the 1970s, believed that if any profession stands in need of a solid general or liberal education, it is certainly librarianship and that a sound liberal education during secondary schooling and under-graduate years is a prerequisite for every librarian. He believed that librarianship must draw from and be sustained by the three great branches of human knowledge, that is, the humanities, the social sciences and the sciences, which comprise the several faculties of a university. According to Shera, through an understanding of the historical development, the current state, the methodology and the critical appraisal of each of these areas, the student will acquire the wisdom and intellectual capacity required for the formation of sound judgements. For Shera this is so because the objective in being exposed to these three basic areas is the development of the capacity to formulate clearly the differences among conflicting lines of argument and to discover that critical point nearest to which truth may be believed to lie. Gates (1976: 98) too, writing in the 1970s, encouraged students preparing for graduate study in librarianship to emphasise “broad general education in the humanities, social sciences and natural sciences”.

Contemporary commentators in the field continue to emphasise the importance of general education, which is usually provided by a general bachelor’s degree, in LIS education and training. Robbins (1990: 42) maintains that the reason why professional LIS education and training is provided at the graduate level is because professional education requires an “intellectual maturity” that is achieved most effectively only through the attainment of a bachelor’s degree. Robbins also points out that the “broad-based liberal arts degree is the preferred under-graduate education” in librarianship because librarianship is often practised in institutions that have broad-based educational missions. Quattrocchi (1999: 84), writing about the education and training of librarians as an “outsider” to the LIS profession, associates acquiring a broad basic understanding of the various branches of knowledge with the best librarians. Davidson-Arnott and Kay (1998: 543) reiterate this by saying that while it is possible to teach, for example subject cataloguing, to those without post-secondary general education, experience has shown that the best subject cataloguers have a broad knowledge base. IFLA in its most recent *Guidelines for professional library/information educational programs* (International Federation of Library Associations and Institutions 2000: 2) stipulates that “students should acquire a broad

general education ... as a significant preparatory component of the total educational program for the library/information professional". In South Africa, both the SAILIS 1987 *Standards for education for library and information science* (South African Institute for Librarianship and Information Science 1987: 8-9) and its 1996 *Proposed guidelines for undergraduate career training* (South African Institute for Librarianship and Information Science 1996: 2) emphasise the importance of general education in contributing to the general development of students as well as their professional competence, social awareness, and the development of their scientific and scholarly approach to the discipline.

Notwithstanding these strong arguments in favour of the value of general education in library and information work, the researcher would like to raise the issue of available resources and national development priorities in developing countries that might not be able to afford study in general education. In fact Rosenberg (1999: 15) points out that there was a school of thought among African countries that argued that given the number of librarians needed for Africa's expanding libraries, it was unrealistic to restrict entry to the profession to university graduates. However, the desire to maintain international standards in LIS education and training (as discussed in section 2.8.5) possibly for reasons of international recognition and articulation, has led African countries to establish professional LIS education and training at the graduate level, thus incorporating general education into professional LIS education and training.

Froehlich (1998: 447) raises an important issue regarding general education and paraprofessionals in LIS services. He explains that what seems to be the basis of discrimination between professionals and others such as paraprofessionals, is that of being trained with a strong intellectual component. That is, that professionals, already having secured a bachelor's or higher degree in another field, have "acquired and mastered the intellectual technologies that form the value-added processes of information work", for example, classification, subject cataloguing, abstracting, indexing and accessing appropriate resources. This argument suggests that that paraprofessional LIS education and training, which takes place in most countries, including South Africa, at the under-graduate level usually located in non-university

higher education institutions (refer to discussions under section 2.8), and generally lacks the broad base of knowledge or general education afforded by a bachelor's degree, is what differentiates between professionals and paraprofessionals in LIS services. Wilson and Hermanson (1998: 482) also make reference to this difference when they point out that the principles of librarianship only have full professional significance when they are related to a broad background knowledge of other subject matter as a librarian does not perform any of his/her skills in a vacuum and that without this academic background the application of techniques in librarianship is simply a matter of skill and training, that is, it is technical and not professional.

The general argument in the literature then is that general education as provided by a university bachelor's degree is essential in library and information work and is therefore integral to professional LIS education and training. The literature also makes reference to the fact that general education is a point of departure between education and training of professionals and that of paraprofessionals in LIS services.

2.10.3 **The 'core' in library and/or information science education and training**

Any professional education and training programme has a common content that is relevant to any beginning professional. This content makes up the core of the knowledge of the profession and is presented in the academic programme as required modules (or subjects or courses or instructional offerings) that are to be taken by all students. Elective modules that also form part of the academic programme are a heterogeneous array from which the student selects enough to make up the credit units required for graduation. Elective modules prepare a student for a particular position in the profession. Required modules, on the other hand, are designated the foundation of the discipline as they cover the study of the theory, principles, practice and values of the discipline. These required modules are often referred to, as the 'core' of the professional programme and all students are therefore required to take them. The issue of what constitutes or should constitute the 'core' in LIS education and training is an area being looked at by the current study.

The literature (Grotzinger 1986: 465; Robbins 1990: 40; Stieg 1992: 108) indicates that it is difficult to be precise about what exactly constitutes the core in library and/or information science education and training. “Core educational components ... will differ in their manifestations from one educational program to the next” (Robbins 1990: 40). Grotzinger (1986: 465) points out that “numerous experiments in many different library schools have not produced one universally accepted definition of what constitutes a core...”. Perhaps it is for this reason that Shera (1972: 364, 367) described the core as “the search for a unified theory of librarianship [that] implies a professional philosophy which is expressed in the curriculum as a basic course structure required of all students” and that there has been a “continuing search for the principles of unity that would bind the educational program into a cohesive whole ...” This search for a universally accepted definition of what constitutes the core in LIS education and training still continues more than a hundred years after the establishment of the first library school by Dewey in 1887. According to Grotzinger (1986: 465) “the problem has been exacerbated by the growing impact of information science on the traditional library science programs”. Stieg (1992: 109) reiterates this when he says “now that library schools are transforming themselves into schools for the information profession, the intellectual difficulty [of establishing the core] has increased”.

According to Stieg (1992: 108) while the core in schools of library and information science differs somewhat from school to school and from time to time, there have been some commonalities that can be identified and these correspond to a considerable degree with the basic responsibilities of the information professions, that is, collection, organisation, dissemination and use of information. LIS scholars (Gates 1976: 98; Grotzinger 1986: 458; Hayes 1988: 314) have pointed out that when the general and philosophical language as well as the variations in terminology in titles of courses are removed, what you have are essentially selection of materials, cataloguing and classification, reference services and library administration as the core of most programmes.

However, Grotzinger (1986: 460-461) points out, and as indicated at various points in earlier discussions in this chapter, that schools or departments have been changing their curricula to respond more adequately to the demands of the information society as “no societal impact has been as significant as the information revolution and the machines that have changed every aspect of our world of recorded information and communication”. For example, information technology is now often included in the curriculum as a separate required module and it has also penetrated other required modules. Cataloguing by means of an automated system is taught in cataloguing, how to search machine-readable databases is taught in reference work, automated thesaurus construction and indexing are taught with subject headings and classification in modules on the principles of bibliographic organisation.

Thus, the core has over the years undergone many changes to accommodate this new content generically referred to as information science and also as the result of the fact that some of the core changes with time. According to Grotzinger (1986: 460) and as indicated by others, for example Lor (1990) in section 2.10.1, the revised curricula in many cases “still reflected the old tradition rather than a meaningful synthesis of the complex substance of information science with the fundamental theory and philosophy of library science”. The uncertainty in the profession regarding the precise nature of the relationship between library science and information science (discussed in section 2.10.1 above) most probably contributes to this state of affairs. Hence this is likely to continue to result, in many instances, in programmes described by Grotzinger (1986: 453) as “an unwieldy and often unsatisfactory combination of the traditional library core, appropriate library science electives, computer sciences, mathematics, philosophy and any other discipline presumably of value to the generalist graduate”.

Notwithstanding these difficulties in defining the core in professional LIS education and training programmes especially in a field that is in a continuous state of flux, various policy statements have been issued over the years by government and professional associations that attempt to identify important knowledge and skill components to serve as guidelines to education and training providers. Examples of such policy statements include those issued by the Library Association in the United Kingdom, the Australian Library and Information Association, the American Library

Association, the Special Libraries Association in the United States of America and many others. The International Federation of Library Associations and Institutions (IFLA) has over the years also issued such policy statements and its most recent *Guidelines for professional library/information educational programs* (International Federation of Library Associations and Institutions 2000: 2) stipulates the following “core elements” to be included in any professional LIS education and training programme:

- ❖ The Information Environment, Information Policy and Ethics, the History of the Field;
- ❖ Information Generation, Communication and Use;
- ❖ Assessing Information Needs and Designing Responsive Services;
- ❖ The Information Transfer Process;
- ❖ Organisation, Retrieval, Preservation and Conservation of Information;
- ❖ Research, Analysis and Interpretation of Information;
- ❖ Applications of Information and Communication Technologies to Library and Information Products and Services;
- ❖ Information Resource Management and Knowledge Management;
- ❖ Management of Information Agencies; and
- ❖ Quantitative and Qualitative Evaluation of Outcomes of Information and Library Use.

This ‘core list’ has been used in the empirical part of this study (refer to Appendices B and C) in an attempt to determine what constitutes or should constitute the ‘core’ in LIS education and training in South Africa as the latter is one of the issues being investigated by the current study.

The Committee on Accreditation of the American Library Association in its most recent statement on accreditation standards for the master’s programme, which is the basic professional LIS education and training programme in the United States of America, also identifies core components of this programme (American Library Association 1992: 2). The *Standards for accreditation of masters’ programs in library and information studies* sees the “essential character of the field of library and

information studies” as being concerned with “recordable information and knowledge and the services and technologies to facilitate their management and use” and as “encompassing information and knowledge creation, communication, identification, selection, acquisition, organisation and description, storage and retrieval, preservation, analysis, interpretation, evaluation, synthesis, dissemination and management” (American Library Association 1992: 4-5).

It is interesting to note that these more recent statements of the core in LIS education and training (all of which are not practical to cite from) are couched in very generic terminology that embrace information professions generally rather than just libraries, reflecting a general trend the world over for LIS education and training schools and departments to prepare students for the wider information market. Ocholla (2000: 38-39), in a comparative overview of LIS education and training in Africa, cites the “main courses/subjects” in LIS education and training curricula in selected African universities and here too this trend of embracing the wider information field is evident. For example, there are subjects such as information management; information organisation and processing; information analysis, synthesis and evaluation; information technology; information sources, storage and collection development; information dissemination; and information centres, systems and services.

The literature thus reflects that while it is possible to identify some of the aspects of the core in LIS education and training, this core is a continuously evolving one as the information environment which LIS education and training programmes need to respond to, is in a state of continuous flux.

2.10.4 **Specialisation versus generalisation in library and/or information science education and training**

A long-standing debate in LIS education and training has been whether the basic professional programme should be generalised so that graduate professionals may be employed in a variety of environments or specialised to support professionals employed in specific roles or institutions. This ‘divergence versus convergence’ or

'specialisation versus generalisation' issue is still an unresolved matter and continues to be debated in the literature.

Commentators on generalisation believe that students must first master the field's central or core knowledge that includes a whole spectrum of types of library and information services, collections and clientele. Commentators on specialisation tend to see specialisation as equipping individuals to work in special places such as academic or public libraries. According to Cox and Rasmussen (1997: 255-256) proponents of this latter view see the role of specialisation as educating information professionals to labour in a more focussed fashion so as to carry out particular functions such as information retrieval or the preservation of certain types of information. They believe that the value of specialisation is that it offers the best way to orient students to the basic principles, theories and issues of library and information science. Furthermore technology issues, research, fieldwork and the relationship of practice to theory all can be better managed by accommodating specialisations within the first degree. They also believe that the core principles emerge better developed and with specific or practical application through specialisations.

A further motivation to introduce specialisation into the basic professional qualification has been for graduates to fill niches in the diverse information environment (Rochester 1997: 172). Cronin (1985: 13) makes a similar point when he says that beyond the traditional LIS market there is a demand for systems analysts, database designers, information resource managers, marketing information specialists and many other information-related specialists. The question to be asked, according to Cronin, is whether it will continue to be practical or desirable for a single institution to provide education and training for all types of information work or whether the increasing specialisation of the job market will make more specialised forms of education and training necessary. Robbins (1990: 41) points out, in regard to this, that emphasis on specialisation in the profession by type of institution (for example, academic libraries or public libraries) is declining and that specialisation will increasingly focus on the client served by, for example, the indexer/abstractor, collection developer or information manager. Cronin (1985: 14) sees two probable trends. Either schools or departments will attempt to retain their grip on the

'information whole' and thus have foundation courses to cover the fundamentals of information work on top of which specialisation tracks will be set. Alternatively, schools or departments may decide to concentrate on a limited number of career tracks and offer tailor-made courses to provide students with the necessary skills to find employment in a particular operational environment. It is the researcher's opinion that while integrated or generalist programmes may be considered to be the ideal, the critical question is whether schools or departments are capable (in terms of capacity and time) of teaching all that has to be taught especially in an increasingly diverse information environment.

This issue of specialisation and differentiation with regard to specific specialities among LIS schools and departments is relevant to the current study as one of the issues being investigated is what possibilities exist for institutional specialisation in LIS education and training in South Africa especially in the context of the present government's current drive towards rationalisation in higher education. In fact discussions in section 2.8.6 have pointed out that there is not enough differentiation and specialisation at the basic qualification level in LIS education and training in South Africa, and LIS departments and programmes have been encouraged to specialise.

Some examples of specialisations at the basic qualification level include the popular example of teacher librarianship or school library/media centre specialisation, although in many cases this specialisation is offered by the LIS education and training school or department in conjunction with the school or department of education with the emphasis being on the teaching function. Other specialisations include courses for archivists and records managers. The literature reveals that, and as alluded to several times in earlier discussions, over the last fifteen years the largest single modification to basic professional programmes has been the addition of new courses in technology and information science such as telecommunications, database management, artificial intelligence for information retrieval, marketing of information and many other courses that may be collectively viewed as an information science specialisation. Cronin (1985: 15) points out that an interesting development in many library and information schools, especially in the United States of America, has been the growth

of the concept of information management as a specialisation in the field. Some of the schools have developed specialist programmes in this area. According to Cronin graduates of this programme tend to be “more dynamic” and “have a greater interest in the new information handling and communication technologies” than the graduates with the general master’s degree in library and information science. Horrocks (1986: 294) points out that various specialisations on offer may take the form of joint degrees possibly with other schools or departments, specialisations within the basic professional qualification such as the masters in library and information science in the case of the North American countries, or as separate programmes in their own right.

However, the concept of specialisation at the basic professional qualification level has inherent difficulties even though on the surface it may appear very appealing and relevant to present times. Firstly, when a school attempts to prepare its students to function in specific positions, according to Stieg (1992: 112-113), it is emphasising training as opposed to education, which is not necessarily a bad thing as there is the reality that some graduates must be able to function as systems analysts or children’s librarians without further preparation. However, according to Stieg, the problem is that it runs contrary to established thinking and philosophy of what basic professional library and information science education is all about. That is, the meaning of ‘professional’ is supposed to encompass a wider vision beyond the immediate job^{iv}, and too narrow a focus impairs that. There is also the issue of quality. Scholars have asked how truly specialised can a graduate be after, for example, one year of LIS education and training (in the case of the master’s degree in library and information science in the United States of America or even the post-graduate diploma in the case of South Africa). The length of the programme makes it difficult to develop any depth in a specialisation. Bruce and Middleton (1996: 36), writing in the Australian context, support this when they say, “the exigencies of a one year graduate diploma course allow little avenue for specialisation”. A further factor that interferes with the logic of specialisation is the preference of students for ‘general’ preparation. They generally want programmes that will qualify them for a variety of positions. Clayden (1995: 231) supports this point when she points out that generalists with a wide range of knowledge and skills have a better chance of finding employment, especially in a restricted market. Employers too, according to Clayden, tend to prefer general to

specialised preparation as it permits greater flexibility in the organisation. There are also administrative problems associated with specialisation. In order for specialisations to be viable, faculty expertise must be available as well as enrolments sufficient for economic feasibility (Hayes 1988: 314). A general trend the world over is that LIS education and training schools or departments tend to have small student and staff populations (Hayes 1988: 315; Clayden 1995: 231; Rochester 1997: 172). It is not always possible to offer a specialisation that only a few students wish to take. Furthermore, there should be enough permanent faculty members in a school or department to ensure that they can adequately cover core courses and still have sufficient faculty with the necessary expertise to cover the specialisations on offer. This is not always possible in the light of the general tendency for schools or departments in this field to be small. In fact Kaniki (1995), in a study that assesses the viability of LIS education and training departments in South Africa in offering specialised courses in information provision to rural communities, concludes that while departments recognise the need to offer such a specialisation it is unfortunately not viable largely because of departments having few staff members already burdened with other academic programmes.

The literature clearly reflects the on-going specialisation versus generalisation debate that affects LIS education and training the world over including South Africa. There are merits and problems on both sides of the debate. Individual LIS schools and departments will need to base decisions on whether to 'specialise' or 'generalise' on departmental and institutional circumstances as well as on other local and national considerations.

2.10.5 **Theory and practice in library and/or information science education and training**

The researcher would like to point out at the outset that this discussion pertains to professional LIS education and training, as this is where the issue of theory versus practice is located.

The issue of theory and practice is yet another issue in LIS education and training that continues to be debated in the literature. A major dilemma facing LIS education and training schools or departments has been to what extent should the theory and the principles that underlie the practice of library and information work be stressed, and to what extent should students be trained in the application of this body of theory. This question of balance between theory and practice is a perennial issue for most educators in vocational programmes. Shera (1972: 201-202) succinctly summed up the issue when he said:

Every profession is a blending of theory and practice, a science and an art, *wissen und können*, to understand and to know how. Both of these elements are essential, both must be maintained in an harmonious and proper relationship. Like the rungs of a ladder, if they are allowed to become separated too far, the one cannot be reached without losing contact with the other. If there is an excess of know-how the profession degenerates into a mere craft^v, while too much theory leads to the sterility of empty formalism.

While LIS education and training schools or departments do attempt to maintain an appropriate balance between theory and practice, in reality some end up emphasising one more than the other as a result of the constant tension between theory and practice captured in Shera's words above.

According to Hayes (1988: 314) and Bramley (1975: 186) there is often a sharp divergence of opinion between LIS services practitioners and LIS educators regarding the purpose of LIS education and training. It is often argued by librarians in senior positions that the purpose of LIS education and training is to produce qualified staff who would be able to step into professional posts in a library and perform duties assigned to them with the minimum amount of training being necessary. Instead they find that graduates from library and information schools or departments have had too much theory and too little practice and that their education and training has not prepared them for the 'real world'. The general view of educators, on the other hand (and in the researcher's opinion quite rightly so as this is the essence of professionalism as discussed in section 2.9), is that it is their role to 'educate' the student and the duty of the libraries themselves to train the students in the finer techniques of librarianship and information work. Hayes (1988: 314) explains that

while educators view theory and practice as two necessary components in LIS education and training, they see theory as being necessary to provide the student with a broad perspective, so that there will be a structure on which to base responses to specific practical situations. Within such a theoretical approach, instruction in practice becomes a means for teaching theory and a result of the educational process, and not necessarily the intention.

A number of commentators have reiterated the argument that the responsibility of preparing students for careers in the LIS services field should be shared between library and information schools or departments, on the one hand, and libraries or information centres on the other. For example, Dougherty (1986: 119) argues that LIS schools or departments cannot be expected to shoulder the entire responsibility for preparing students who seek careers in LIS services. The intellectual demands are too diverse, and the time available to educators too short. Dougherty goes on to argue that the schools or departments should provide students with a solid foundation in the principles and philosophies that underlie librarianship and information work. Such an education, points out Dougherty, would not ignore the need for laboratory hands-on experience such as use of computers, cataloguing, database searching and other practical work. It is just that the emphasis would be on the 'whys' and not on the 'hows' of library and information work. Training of students in the techniques of library and information practice should be the responsibility of employing LIS services, such as libraries, in the period immediately following employment. (Refer to section 1.5 in Chapter 1 for the distinction between education and training.) Furthermore, libraries are in a good position to offer special training opportunities that focus on current issues, trends and developments (especially technological developments) and on topics that have greater relevance to practitioners with experience. In this way employing LIS services would be complementing the formal education programme. Robbins (1990: 40) reiterates this line of argument by saying that "the function of a professional school is to educate for the broad field, not to emphasise training in its narrow skills". Skills development comes in the first years of professional practice. Education for the practice of librarianship and information work at the professional level takes into consideration not just the first year but the practitioner's final year. The aim is to prepare students for a career, not for the

performance of narrow tasks. Stieg (1992: 19-20) also emphasises that schools or departments of library and information science aim to provide 'a foundation for a lifetime' but makes the added point that specific professional skills and knowledge, good for an entire career, cannot be taught adequately because they change. This is particularly so in the current rapidly changing technological environment. Thus training in these latest developments need to be provided by employing institutions.

Numerous other writers (Cronin 1985: 12-13; Ratcliffe 1987: 112; Sengupta and Umarani 1996: 76-77; Wilson and Hermanson 1998: 479;) have put forward similar arguments for a partnership between formal education providers and employing institutions in the education and training of professional library and information workers. It is interesting to note that many of these arguments put forward in the literature regarding the purpose of professional LIS education and training encapsulate the very point that differentiates between professionalism and paraprofessionalism in LIS education and training; that is, professional education and training has a general focus and provides a life-long foundation for future practice while paraprofessionalism has a narrower focus and concentrates on specific skills and techniques.

It is important to point out that despite the strong arguments that it is the professional community that should teach practical LIS skills and contribute to the continuing education of the LIS services worker, LIS education and training schools or departments do incorporate practical work as an integral part of the curriculum albeit for a limited period due to time constraints and, more importantly (in the opinion of the researcher), because practice is not the focus of professional LIS education and training. In fact IFLA in its most recent *Guidelines for professional library/information educational programs* (International Federation of Library Associations and Institutions 2000: 2) states that "programs should incorporate appropriate means for all students to appreciate the interplay between professional theories and their application in professional practice". A variety of methods are employed to introduce practical work into academic programmes. Some of these include: arranging with suitable libraries or information centres for students to spend a specified period of time working under supervision of an LIS services professional,

simulating LIS services conditions in the classroom, visits by groups of students to selected libraries and information services, and invitations to practising LIS services professionals to deliver guest lectures at the schools or departments.

In summary then, while practitioners from different types of library and information services continue to complain that LIS education and training schools or departments do not prepare students adequately for entry-level positions in their libraries by not giving them enough practice, LIS education and training schools or departments attempt to maintain an appropriate balance between theory and practice. However, at the same time the schools or departments believe that it is their primary responsibility to equip students with a philosophical and theoretical base for library and information work and to provide a broad view of practice, but that it is the responsibility of employers to train young professionals in the practical aspects of library and information work. This issue of theory and practice, as pointed out earlier, continues to be debated in the literature.

2.11 Summary

The review of related literature in this chapter has firstly attempted to place this study in context by providing a brief review of literature on higher education in which university and technikon education and training are located. This review of literature was extended to include university and technikon education and training specifically, especially their nature and purpose as these two types of higher education institutions are a focus of this study. Current changes taking place in higher education in South Africa were also looked at in order to ascertain how these changes are impacting on the traditional cultures and values of universities and technikons in South Africa. This chapter also provided an overview of LIS education and training in selected parts of the world in order to ascertain international trends in LIS education and training. Countries selected for discussion were generally those in which there have been significant developments in LIS education and training that have influenced trends in other parts of the world, particularly South Africa. This chapter also provided a historical overview of LIS education and training in South Africa as well as a review of the literature on important issues relating to LIS education and training in this

country. It was necessary to resort to detail here, as the current study is located in the South African LIS education and training context. Finally, various issues and themes associated with LIS education and training and which are relevant to the current study, were examined. Against the backdrop of this extensive review of related literature, the next chapter sets out the research design that was employed to achieve the objectives of the study.

ⁱ Official documents such as these emanating from South African government departments and ministries are entered directly under the name of the department or the ministry as this is how the statements of responsibility are reflected in these documents.

ⁱⁱ Co-operative education is the joint presentation of a programme by the technikon and the industry for which the qualification is designed. The two partners in the training are equal, but the technikon bears the final responsibility. The interaction could take many forms including vacation work, placement of students with an employer for one or more days per week during the academic year, alternating periods of study and work and a broad spectrum of other forms as well. Co-operative education brings the student into contact with his/her industry and ensures first-hand knowledge of that particular industry. It is an extension of the formal aspects of the instructional programme and as such is properly monitored by lecturers and generally forms part of the student's final results (Department of National Education, National Education Policy Branch 1988: 50).

ⁱⁱⁱ Mergers between universities and technikons to form comprehensive institutions recently announced by the Ministry of Education raises a problem for LIS education and training in maintaining this international trend, in that the university part of the comprehensive institution may decide to start offering national diplomas in LIS over and above LIS degrees.

^{iv} This point has been alluded to several times in this chapter, notably in the discussions on the relationship between professionalism and paraprofessionalism as well as in the discussions on general education, and is critical to the distinction between professionalism and paraprofessionalism.

^v Note how this point is so much in keeping with the relationship between professionalism and paraprofessionalism and also with the difference between university and non-university higher education.

CHAPTER 3:

Research Methodology and Data Collection Techniques

3.1 Introduction

The previous chapter provided a review of literature related to this study in order to locate the study in its proper context. The main purpose of this chapter is to set out the research design that was employed to achieve the objectives of the study. In order to meet the objectives of a study certain research questions are generated and according to Durrheim (1999a: 29) “research design is a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research”. The research design provides a plan that specifies how the research is going to be executed so that it answers the research questions.

The general purpose of this study was to conduct a comparative study of first level library and/or information science (LIS) qualifications offered at South African universities and technikons. It is necessary at this point to re-state the specific objectives that had been set to effect this general purpose:

1. to provide clarity to those currently employed in library and/or information services, those who wish to become library and/or information professionals and those who want to employ library and/or information professionals as to what type of first level education and training is required for given posts in the LIS services work environment;
2. to provide clarity to library and/or information science educators regarding what job specifications they should be targeting in the academic curriculum, especially in view of the seemingly blurred demarcation between university and technikon library and/or information science education;

3. to inform curriculum development and particularly the identification of what constitutes or should constitute the 'core' in library and/or information science education and training;
4. to examine what possibilities exist for institutional specialisation in library and/or information science education and training amongst the various higher education institutions in South Africa that offer library and/or information science qualifications, particularly in the context of the present government's current drive toward rationalisation in higher education; and
5. to inform policy formulation regarding articulation between library and/or information science programmes at higher education institutions, particularly universities and technikons.

It is also necessary to re-state the research questions that had been generated in order to meet the research objectives:

- a. What are the job titles and key job tasks or functions of posts in the library and/or information services sector that require knowledge and skills that are imparted by first level library and/or information science qualifications?
- b. To what extent do the various first level library and/or information science programmes currently being offered in South Africa meet the job tasks or functions of posts that require the knowledge and skills that are generally imparted by first level library and/or information science qualifications?
- c. What constitutes or should constitute the 'core' in library and/or information science education and training?
- d. Is having a broad base of knowledge (general education) essential in the provision of an efficient library and/or information service and if so, what are possible ways in which technikon library and/or information science curricula, which lack broad based education, can incorporate this?

- e. What possibilities exist in South Africa for institutional specialisation in library and/or information science education and training amongst the various universities and technikons offering library and/or information science qualifications?
- f. What is the purpose of university education and training on the one hand and technikon education and training on the other?
- g. In the light of the new education ethos in South Africa, what have been some of the major changes in higher education and how have these changes impacted on the traditional cultures and values of universities and technikons in South Africa?
- h. What are the similarities and differences between university and technikon library and/or information science education and training?
- i. What are the possibilities for articulation between university and technikon library and/or information science education and training in South Africa?

The rest of this chapter will set out the procedures that had been carried out, or the plan that had been put in place, in order to answer these research questions and hence meet the objectives stated above.

3.2 **Research design**

The research design in this study involved two crucial aspects, that is, an extensive review of related literature and a survey of relevant populations by means of mailed, self-administered questionnaires to facilitate relevant data collection. Discussion on each of these aspects will follow.

3.2.1 Review of related literature

According to Kaniki (1999: 17-18) “a literature review involves the identification and analysis of literature related to one’s research project” and its main purpose is to “place your research project into context by showing how it fits into a particular field”. The introduction to Chapter 2 (**Review of Related Literature**) has already indicated that this review was necessary to locate the present study in its proper context by identifying and analysing various issues in the literature that are related to the study.

However, from the point of view of research design, this review of related literature, very importantly, served the purpose of “identifying issues and variables related to the research topic”, which Kaniki (1999: 19) puts forward as one of the more specific purposes of a literature review. This exercise was crucial for the subsequent design of the data gathering instruments as items that were eventually included in these instruments, to a large extent, were a reflection of “issues and variables” identified in the literature, both local and international.

3.2.2 The survey

In order to do a comparative study of first level library and/or information science qualifications offered at South Africa universities and technikons, it was necessary to survey the views of past students, employers and educators in the LIS field regarding these qualifications and their relevance to the LIS services work environment. Surveys are one of the most widely used data gathering techniques in social research (May 1997: 81; Neuman 1997: 228). Thomas (1996: 115) describes a survey as “a procedure in which information is collected systematically about a set of cases, such as people, organisations, objects”. These cases are selected from a defined population and the aim is to “construct a data set from which estimates can be made and conclusions reached about this population” (Thomas 1996: 115). Data gathering in surveys are conducted mainly through self-administered questionnaires, telephone surveys and face-to-face interviews (May 1997: 89). The self-administered questionnaire was selected as the data-gathering instrument for this study.

3.2.2.1 Self-administered questionnaires

The self-administered questionnaire offered a relatively economical, both in terms of time and material costs, method of data collection over the telephone survey and the personal interview. Some of its other advantages identified by May (1997: 90) and Bless and Higson-Smith (2000: 109) include:

- it is possible to cover a wide geographic area and hence a large coverage of the population can be realised at a relatively low cost (this was particularly useful for the current study as the targeted populations were scattered throughout the country);
- anonymity is assured and this helps respondents to be honest in their responses; and
- some types of questions that require reflection or consultation before answering, which was indeed the case in the current study, would be more appropriately dealt with when the respondent has more time for a response and no waiting interviewee to cause a hasty response.

However, the researcher was also aware of the disadvantages of self-administered questionnaires, especially those that are mailed which was largely the case in the current study. May (1997: 90) and Bless and Higson-Smith (2000: 109-110) identify the following disadvantages of self-administered questionnaires:

- the need to keep questions relatively simple and straightforward as the researcher has no control over how respondents interpret the questions once the questionnaires have been mailed or distributed;
- the possibility of probing beyond the responses that respondents provide is absent;
- there is no control over who answers the questionnaire, for example, the researcher may require a manager to answer the questionnaire but instead his/her secretary answers it; and
- the response rate for mailed questionnaires generally tends to be low as participants may misplace the questionnaires, have a lack of interest in the research and cannot be bothered to complete the questionnaire, be too busy to

complete the questionnaire or skip over difficult or embarrassing questions often spoiling the whole questionnaire.

Notwithstanding these disadvantages the researcher opted for the mailed, self-administered questionnaire as the data-gathering instrument for this study.

Three different questionnaires were designed. There was a questionnaire for library and/or information science graduates and diplomates from universities and technikons (Appendix A), a questionnaire for library and/or information services employers (Appendix B) and a questionnaire for library and/or information science educators at universities and technikons (Appendix C). The purpose of the questionnaires was to gather data on the views of past students (that is, graduates and diplomates), employers and educators in the LIS field regarding first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment. While there were some questions that were common to all three questionnaires thus allowing for comparisons during the analysis stage of the research, in large part each questionnaire was specifically targeted at a particular population.

During the design of the questionnaires careful consideration was taken of advice on questionnaire design offered by various research methodology texts (Hult 1996; May 1997; Neuman 1997; Bless and Higson-Smith 2000), especially the advice relating to alleviating some of the effects of the disadvantages of self-administered questionnaires mentioned above. Advice on questionnaire design from experienced survey researchers, for example the supervisor of this study, was also invaluable. However, as Neuman (1997: 233) states, "Question writing is more of an art than a science. It takes skill, practice, patience and creativity." Despite the many drafts and attempts at near perfection, in reality it is difficult to arrive at a perfect questionnaire, as the researcher was to discover during the analysis stages of the research. The researcher also found that despite advice such as, "A questionnaire should not be long and complicated" (Thomas 1996: 121), sometimes due to the nature of the topic of the research and the type of data the researcher needs to draw from the participants in the survey, it is difficult to follow such advice. For instance, in the case of the current

study, the questionnaires ended up being quite long as titles and brief descriptions of the various modules/instructional offerings/subjects/courses offered in the different first level LIS programmes had to be provided in order for participants to respond to questions relating to qualifications that these programmes lead to, in a meaningful way. It was also necessary at times to include definitions and other explanations in an attempt to make the questionnaires clear and unambiguous. Furthermore, while too many open-ended questions lengthened the questionnaires and increased the burden of analysis on the researcher, again the type of data the researcher needed, for example, opinions, perceptions, attitudes and clarification of issues, left the researcher with little choice but to include many open-ended questions which gave respondents greater freedom to answer the questions as they felt was appropriate. Yet at the same time it must be admitted that many of these open-ended questions were used as a follow-up to closed questions, for example, "If you answered **yes** please explain why". May (1997: 95) reports that studies have shown that this is a useful way of using open-ended questions.

Kaniki (1999: 20) puts forward "identifying methodologies" as yet another one of the more specific purposes of a literature review. The literature review may reveal methodologies that have been employed by others to study similar problems. While the review of literature in the current study did not reveal any other study that has done a comparative study of LIS qualifications, it did reveal an investigation that employed the self-administered questionnaire to study employers' perceptions of the graduates and curriculum of a library school (Aina and Moahi 1999a) and another study that also used the self-administered questionnaire to survey the perceptions of graduates of a library school regarding the relevance of their training to their current jobs (Aina and Moahi 1999b). The design of questions in both these studies proved to be most useful to the researcher in providing ideas for the design of questionnaires in the current study, especially that employers' perceptions and past students' perceptions of library school curricula that were part of these studies are very much part of the current study.

It was mentioned earlier that one of the things that lengthened the questionnaires in the current study was the need to include titles and brief descriptions of the various modules offered in the different first level LIS programmes. It is necessary to point out that this information presented in the questionnaires was gleaned from information available from LIS academic departments' web sites, departmental handbooks and most recent prospectuses of universities and technikons. It is further worth noting that among the various LIS academic departments there are slight differences in terminology used in academic programmes, content of instructional offerings, levels at which certain aspects of the programme are offered and other minor differences. For the purposes of the research these minor differences were immaterial as long as all existing modules had been reflected in the questionnaires as being part of a programme leading to a first level LIS qualification. It was also decided that the questionnaires would not reflect compulsory and elective modules in the list of modules that make up first level LIS qualifications. Apart from the fact this would have been cumbersome to do especially for composite listings of modules for common qualifications offered throughout the country, it was not necessary in terms of the research questions set for the study as a whole. At this point it is also important to mention that the study, and hence the questionnaires, did not include for comment 'odd' first level LIS qualifications offered by individual institutions, for example, the Diploma in Information Science offered by the University of South Africa, the B.Bibl. (Alternative) offered by the University of the Western Cape and specialist first level LIS qualifications offered by certain institutions only such as the Post-graduate Diploma in Records and Archives Management offered by the University of Natal. Instead the focus was on first level LIS qualifications commonly offered by LIS education and training departments or programmes throughout the country.

It was mentioned earlier that the extensive review of related literature that formed an integral part of the research design in this study, to a large extent influenced items included in the questionnaires. At times this even necessitated including in the questionnaires excerpts from international documents for comment by employers and educators, as it is important to locate LIS education and training in South Africa in the global context particularly that South Africa has now been 'opened up' to the

international arena after many years of isolation. This too, unfortunately contributed to the length of the questionnaires.

A covering letter was prepared for the questionnaires. It explained the purpose of the questionnaire, stressed the importance of the research and hence the need for co-operation, and assured respondents that confidentiality will be respected.

3.2.2.2 **Population and sampling**

Sampling is a process of systematically selecting cases for inclusion in a research study. Most empirical research is conducted on a sample of cases that may be individuals, groups, organisations or archival documents (Van Vuuren 1999: 274). The larger pool of cases from which the researcher draws a sample is referred to as the population, or sometimes, the target population. Sampling allows the researcher to measure variables on the smaller set of cases (the sample) but generalise results accurately to all cases (the population). The main advantages of sampling as opposed to the collection of data on the whole population are that gathering data on the sample is less time consuming and less costly, and furthermore, sampling may be the only practical method of data collection as, for example, in the case where the population is infinite or extremely large thus making the study of all its elements impossible. (Neuman 1997: 201-203; Bless and Higson-Smith 2000: 83-86). Sampling is a crucial aspect of research design because the type of conclusions that may be drawn from the research depend directly upon whom the research was conducted. It is very important that the sample characteristics must be the same as those of the population as this makes the sample representative of the population. The researcher must therefore ensure that the sample is drawn in a systematic manner to achieve a representative sample from which accurate generalisations of results would be possible (May 1997: 85).

The survey part of the current study had three distinct target populations. As part of the general purpose of conducting a comparative study of first level LIS qualifications offered at South African universities and technikons, the intention was to gather data on the views of past students, employers and educators in the LIS field regarding first

level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment. The way in which each of these three populations was dealt with in the survey needs to be explained.

It was decided to survey past students who had graduated in the last five years with first level LIS qualifications and who are currently employed in library and/or information services. Five years was used as the cut-off mark for past students as it is generally agreed that it takes about five years for an individual to establish one-self in a particular work environment and to reach a point at which the individual has firm ideas and opinions about a particular work environment and issues relating to it. It was necessary for the participant in the survey to be employed in a LIS service in order to contribute views or opinions regarding first level LIS qualifications and their relevance to the LIS services work environment. Past students in the survey included first level LIS qualification graduates and diplomates from universities and technikons in South Africa.

Accessing this population of past students who had graduated in the last five years proved difficult as they are scattered in different LIS services throughout the country. One possibility could have been to trace these past students via university and technikon alumni offices. Unfortunately, this was not feasible as both alumni offices and LIS academic departments at many of the universities and technikons claimed that their alumni databases were not up-to-date or were even non-existent. According to Ocholla (2001: 147) "changes of graduates' addresses and their disappearance for unknown reasons" makes it very difficult to trace all past students. This is one of the reasons, according to higher education institutions, why alumni records are difficult to keep up-to-date. Moreover, there is no available sampling frame for this population (that is, a list of members of this population) that could have been used to draw a probability sample. However, the researcher tried to establish an approximate figure for the size of the number of students who had completed first level LIS qualifications in the last five years by contacting individual LIS academic departments at both universities and technikons and requesting these figures for the last five years. While most of the departments had been willing to provide this information some of them indicated that these figures were rough estimates, as proper statistics for as far back as

the last five years had not been kept or that there had been difficulties in accessing these statistics from the university or technikon system. Of the thirteen existing departments (refer to *Table 3.7* for a list of these departments) one department ended up not providing these statistics at all despite many months of requesting and reminding by the researcher. The researcher managed to obtain these statistics for two of the university departments that had recently closed and the three technikon departments that are at the moment phasing out their programmes (refer to section 3.2.2.4.3 for details of these departments). Thus the researcher established, on the basis of information provided, that approximately 1800 individuals had completed first level LIS qualifications in the last five years. This figure excludes statistics from the one department, mentioned above, that did not supply figures for the number its students who had completed first level LIS qualifications in the last five years. It could be argued that it might have been easier and more reliable to establish this figure via university and technikon graduation lists for the last five years. However, as Ocholla (2001: 147) points out, “a reliable record of the actual number of graduates cannot be obtained from the student graduation list” as the names of those individuals owing fees to the institution, which is a common occurrence in the current socio-economic climate in South Africa, are left out. It should be noted that this rough figure of 1800 is not necessarily the size of the population targeted in this part of the survey as this figure includes graduates and diplomates who are unemployed, employed outside the LIS services sector, full time students pursuing higher or other qualifications as well as those who have left the country. The target population would be somewhat smaller than 1800. How much smaller is difficult to calculate. Nevertheless the figure serves the purpose of providing a very rough indication of the size of the target population for this part of the survey.

Due the absence of a reliable sampling frame as well as the fact that it is difficult to trace these diplomates and graduates for reasons already mentioned, it was decided not to extract a sample but to target this population generally via existing LIS services requesting them to distribute the survey instrument among staff who had graduated with first level LIS qualifications in the last five years. Details on how this was done are provided in section 3.2.2.4, **Administering the questionnaires**. The literature review in Chapter 2 reveals that while, more recently, LIS graduates are being

employed outside traditional LIS services in the emerging information market, traditional library and information services are still the largest employers of LIS graduates. Thus the researcher believed that many of these past students could be reached via existing LIS services that the researcher needed to contact anyway for distribution of 'employer questionnaires'. This may be interpreted as purposive sampling as the researcher selected participants available at LIS services that the researcher needed to deal with. However, as is the case with non-probability sampling such as purposive sampling, it is difficult to estimate how well the sample represents the population and this makes generalisation limited. For example, one might argue that a limitation in sampling in this way is that it gives one access only to views of past students in the larger and more established libraries where recent graduates and diplomates are likely to have different experiences compared to those employed in smaller and often one-person libraries or information services and whose experiences and views could be invaluable to the study. The researcher, however, believes that this limitation may be partly off-set by the fact that 170 special libraries or information services, many of which are likely to be small and, in many cases, one-person libraries or information services, have been included in the survey of past students (as explained in section 3.2.2.4.2). Whether past-students from these smaller libraries or information services respond to the questionnaire is another issue.

LIS services employers were also a target population in the survey. Employers here included heads and deputies, where applicable, of LIS services, as it is believed that even though the 'employer proper' may be some larger body under which the LIS service falls, for the purposes of this study heads and deputies are regarded as employers as they occupy employee recruitment and policy or decision-making positions in the organisation. The survey included heads and deputies of provincial library services, major public library services, academic libraries including both university and technikon libraries, the National Library of South Africa, major special libraries or information services, major museum libraries, and national and provincial archives. The researcher was confident that this grouping provided an adequate coverage of the major LIS services in the country. School libraries were not included in the survey as they are generally considered to be a 'special breed'. The Department of Education generally requires specialised training for librarians wishing to work in

school libraries and this generally includes a teaching qualification together with a degree or diploma specialising in school libraries. College libraries were also not included in the survey as this is a large and unwieldy sector that is still in the process of being consolidated into the higher education as well as the further education sectors in South Africa. The researcher was confident that academic libraries were more than adequately covered by the more established university and technikon sectors. It was decided that in the bigger LIS services it would not just be heads and deputies who would be surveyed but senior managers as well who are very often involved in employee recruitment and other decision-making. The largeness of the service necessitated this as well as the fact that heads or deputies, for some reason, might not be able to participate in the survey. This option served to ensure adequate input into the study from the larger LIS services that are generally big employers of LIS graduates and diplomates. It was decided not to draw a sample from this population but to target the whole population of heads, deputies and senior managers of LIS services. The motivation for doing this, despite increased costs in terms of time, printing and mailing, is the general tendency towards low returns on mailed, self-administered questionnaires. The researcher wished to ensure as many returns from as many LIS services as possible. Details of how these heads, deputies and senior managers were traced and contacted are provided in section 3.2.2.4, **Administering the questionnaires**.

Library and/or information science (LIS) educators formed the third and final target population group in the current study. It was necessary too, to gather their views regarding first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment. Currently there are thirteen LIS education and training departments or programmes based in universities and technikons in South Africa. A list of these academic departments or programmes is provided in *Table 3.7*. Information gleaned from academic departments' web sites as well as direct contact with the departments themselves revealed that at the time of conducting the survey (April/May 2002) there was a total of sixty-eight full-time educators in these various departments. Refer to section 3.2.2.4.3 for the categories of academic staff that constitute this population. The

researcher believed that this population was sufficiently manageable to be surveyed and that there was no need to draw a sample.

With employers and educators then, no sampling was done but with the past students population one can say there was purposive sampling. Details of how the researcher went about administering the survey instrument for each of these target populations as well as the response rate in each case are provided in section 3.2.2.4, **Administering the questionnaire.**

3.2.2.3 Testing the questionnaires

Before administering the questionnaires they were pre-tested to identify any problems or difficulties that might arise when participants in the survey are responding to the questionnaires. May (1997: 93) points out that testing a questionnaire is useful before the start of the actual survey as it provides a means of catching and solving any unforeseen problems in the administering of the questionnaire, such as the sequence of questions, phrasing of questions and any difficulties that may be experienced in answering the questions. May goes on to explain that once this is done, the layout, the wording of questions and the general design of the questionnaire may be revised to take into account any criticisms and problems expressed by the test respondents.

The researcher randomly selected, for participation in the testing of the three survey instruments, two past students, one graduate from a university and one diplomate from a technikon; two LIS services employers, one head and one deputy; and two educators, one from a university LIS education and training department and one from a technikon department. The participants were given the relevant questionnaires and were asked to complete them and attach comments. In all six cases the questionnaire was satisfactorily completed but the latter was not done. Instead respondents made a few comments in relevant places within the questionnaire itself. In one case the respondent contacted the researcher telephonically and commented on the questionnaire. In fact May (1997: 93) suggests that it is most useful to have “a chat” with a test respondent after he/she has completed the questionnaire in order to ascertain the respondent’s opinions on the general design of the questionnaire.

In essence there seemed to be no major adjustments required after the testing of the questionnaires. Some superficial changes were required regarding choice of words, sentence order, abbreviations used and punctuation to enhance clarity and allow for easy reading of some of the questions. The necessary adjustments to the three different questionnaires were made and they were ready for administering in the actual survey.

3.2.2.4 **Administering the questionnaires**

In order to encourage completion and return of questionnaires the covering letter that was attached to each questionnaire indicated that the stamped and self-addressed envelope enclosed should be used to return the questionnaire to the researcher. Participants were given approximately three weeks to complete the questionnaires but were encouraged to return them as soon as possible. Details of how each of the three different questionnaires was administered need to be provided.

3.2.2.4.1 **Questionnaire for employers**

As indicated in section 3.2.2.2 the target population for this part of the survey included heads, deputies and senior managers of provincial library services, major public library services, academic libraries including university and technikon libraries, the National Library of South Africa, major special libraries or information services, major museum libraries, and national and provincial archives. The way in which heads, deputies and senior managers from these LIS services were traced and contacted needs to be explained.

The professional body, Library and Information Association of South Africa (LIASA), kindly provided the researcher with two lists of library services. Firstly, LIASA provided the researcher with a list of the nine provincial library services together with names of individuals currently heading the service as well as contact details such as postal addresses, telephone numbers, fax numbers and e-mail addresses. These nine provincial library services are reflected in *Table 3.1*.

Table 3.1

Provincial library and information services

Eastern Cape Library and Archive Services
Free State Information and Heritage Services
Gauteng Library and Information Services
KwaZulu Natal Library Services
Mpumalanga Library and Information Services
North West Library and Recreation Services
Northern Cape Library Services
Northern Province Library and Heritage Services
Western Cape Library Services

LIASA also provided the researcher with a list of metropolitan public library services and here too the list included the names of individuals currently heading the service as well as contact details such as postal addresses, telephone numbers, fax numbers and e-mail addresses. These metropolitan public library services are reflected in *Table 3.2*.

Table 3.2

Metropolitan library and information services

Cape Town Central Library
City of Tshwane Community Library and Information Services
Ekurhuleni Library Services
eThekwini (formerly Durban) Metropolitan Libraries
Johannesburg Public Library
Nelson Mandela Metropolitan Library Services

The researcher added to this list of metropolitan public library services to be surveyed, an important public library service, the Natal Society Library, which though not part of any metropolitan structure has historically evolved as an important and major public library service in the province of KwaZulu Natal. The researcher was able to establish contact details and names of senior staff via telephonic enquiry with the director's office.

It was deemed necessary to survey the head and senior managers at the National Library of South Africa and here too contact details and names of senior staff were obtained via telephonic enquiry with the National Librarian's office.

The researcher obtained, via the current chair of the Forum of University Librarians (FULSA), a list of all university libraries in South Africa. This list also provided the names of current heads and their contact details such as postal addresses, telephone numbers, fax numbers and e-mail addresses. These university libraries are reflected in *Table 3.3*.

Table 3.3

University library and information services

Medical University of South Africa
Potchefstroom University
Rand Afrikaans University
Rhodes University
University of Cape Town
University of Durban-Westville
University of Fort Hare
University of Natal, Durban*
University of Natal, Pietermaritzburg *
University of Port Elizabeth
University of Pretoria
University of South Africa
University of Stellenbosch
University of the Free State
University of the North
University of the North West
University of the Western Cape
University of the Witwatersrand
University of Transkei
University of Venda
University of Zululand
Vista University

* These sister campuses are listed separately in the FULSA list because the libraries are run independently of each other with each one having its own university librarian. For this reason these libraries were surveyed independently.

The researcher obtained, via a member of the Inter-Technikon Library Committee (ITLC), a list of all technikon libraries in South Africa. This list too, provided the names of current heads and their contact details such as postal addresses, telephone numbers, fax numbers and e-mail addresses. These technikon libraries are reflected in *Table 3.4*.

Table 3.4

Technikon library and information services

Border Technikon
Cape Technikon
Eastern Cape Technikon
M.L. Sultan Technikon*
Mangosuthu Technikon
Peninsula Technikon
Port Elizabeth Technikon
Technikon Free State
Technikon Natal*
Technikon Northern Gauteng
Technikon North-West
Technikon Pretoria
Technikon South Africa
Technikon Witwatersrand
Vaal Triangle Technikon

* These two technikons have recently merged to form the Durban Institute of Technology (DIT) but at the time of the survey the merger was still in process and the two libraries had been operating independently of each other. For this reason the two libraries were surveyed separately.

LIASA also kindly provided the researcher with a list of members of its Special Libraries Interest Group together with their contact names and other details. Membership to this interest group, however, is not restricted to LIS service organisations with special services. As a result the researcher had to pick out for inclusion in the survey only those with special services and this totalled 170 special libraries or information services. A limitation in the methodology here is that those

special libraries or information services that are not members of the LIASA Special Libraries Interest Group were not included in the survey. However, in the absence of any other reliable list of special libraries or information services in the country as a whole, this list was the only available one that included a number of the major special libraries or information services in the country. The researcher was confident of the latter as well as the fact that 170 special libraries or information services was an adequate number to include in the survey. For practical reasons it is not possible to list all 170 of these services here. However, it is important to point out that the range of organisations was very diverse including among them special libraries or information services involving research, business, community and various other contexts.

The Natal Museum Library provided the researcher with a list of major museum libraries in South Africa, together with contact details. These museum libraries are reflected in *Table 3.5*.

Table 3.5
Museum libraries

Albany Museum, Library
Amatholo Museum, Library
Durban Museums Library
East London Museum, Library
Natal Museum Library
National Cultural History Museum, Library
National Museum Bloemfontein, Library
Port Elizabeth Museum Library at Bayworld
Robben Island Museum Library
SAAF Museum, Library
South African Cultural History Museum, Library
South African Museum, Library
South African National Gallery, Library
South African National Museum of Military History, Library
Transvaal Museum, Library
Voortrekker Museum, Library

The researcher obtained, via a member of the South African Society of Archivists, a list of national and provincial archives in South Africa, together with contact details. These archives are reflected in *Table 3.6*.

Table 3.6

Archival services and repositories

Cape Town Archives Repository*
Durban Archives Repository#
Eastern Cape Provincial Archives, Head Office#
Free State Archives Repository*
Johannesburg Records Centre*
National Archives Repository*
National Film, Video and Sound Archives*
Northern Cape Archival Services#
Northern Province Archives Service#
Pietermaritzburg Archives Repository#
Port Elizabeth Archives Repository#
Ulundi Archives Repository#
Umtata Archives Repository#

* Archives that form part of the National Archives of South Africa.

Archives that are part of provincial archives services.

These lists of LIS services collectively represented a fair coverage of the major LIS services in the country. In the case of the provincial library services, the major public library services, the National Library of South Africa, the university libraries and the technikon libraries, the heads were e-mailed and informed about the current study and also requested to supply names of senior managers to whom questionnaires may be sent. In instances where heads responded, questionnaires were mailed to the heads and the senior staff named. In instances where heads did not respond to the e-mail, one questionnaire was sent to the head of the LIS service and between three and five questionnaires, depending on the size of the LIS service, were enclosed for distribution by the head to senior managers. In the case of the special libraries or

information services, the museum libraries and the archives just one questionnaire was mailed to each of the heads of the different services, as these are relatively smaller organisations.

Thus in this way the heads, deputies and senior managers of major LIS services were traced and sent questionnaires designed for LIS services employers (Appendix B) in order to ascertain their views regarding first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment.

3.2.2.4.2 **Questionnaire for past students (graduates and diplomates)**

Section 3.2.2.2 indicated that it was decided to target this population of past students that had graduated in the last five years and who are currently employed in LIS services, via existing LIS services requesting them to distribute the survey instrument among staff who had graduated with first level LIS qualifications in the last five years. Hence in the case of the provincial library services, the major public library services, the National Library of South Africa, the university libraries and the technikon libraries, batches of between three and ten questionnaires, depending on the size of the LIS service, were sent to heads' offices for distribution to staff members who had graduated with first level LIS qualifications in the last five years. A covering letter (Appendix D) was attached to each batch of questionnaires. It explained the purpose of the study and requested that the enclosed questionnaires be distributed. The covering letter also asked for the researcher to be contacted if more questionnaires were required. A limitation in the methodology here is that there was no guarantee that these questionnaires would indeed be distributed. The researcher simply had to rely on the goodwill of the offices of heads of LIS services. In the case of the special libraries or information services, the museum libraries and the archives, as these are relatively smaller organisations, just one questionnaire each together with the covering letter was placed into envelopes carrying 'employer questionnaires' to the heads of these services.

Thus in this way the researcher attempted to reach past students who have graduated with first level LIS qualifications in the last five years and who were currently employed in LIS services to provide them with questionnaires designed for LIS services past students (Appendix A) in order to ascertain their views regarding first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment.

3.2.2.4.3 Questionnaire for educators

As mentioned in section 3.2.2.2 above, information gleaned from LIS academic departments' web sites as well as direct contact with the departments themselves revealed that at the time of conducting the survey (April/May 2002) there was a total of sixty-eight full-time educators in these various departments. As also indicated it was decided to survey the entire population here. It should be noted that this population includes all academic staff involved in teaching, co-ordinating or heading LIS programmes or departments at South African universities and technikons. The population here thus included junior lecturers or associate lecturers, lecturers, senior lecturers, heads of programmes or departments, associate professors and professors. It however, did not include part-time lecturers, graduate assistants who are sometimes also referred to as assistant lecturers, tutors, visiting lecturers or professors and external lecturers, as the researcher believed that they are not fully involved in the programmes being taught. The researcher also established, during contact with the departments, that of the sixty-eight educators, three (including the researcher) were on long leave from their institutions and it was decided that it would be futile to send questionnaires to them.

Thus questionnaires designed for educators (Appendix C) to ascertain their views regarding first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment, were sent to sixty-five full-time educators from thirteen university and technikon library and/or information science departments or programmes reflected in *Table 3.7*.

Table 3.7

LIS departments or programmes at universities and technikons

Department or Programme	Institution
Department of Library and Information Studies	M.L. Sultan Technikon (now DIT)
Department of Information Science	Rand Afrikaans University
Sub-programme Library and Information Studies	Technikon South Africa
Department of Information and Library Studies	University of Cape Town
Department of Library and Information Science	University of Fort Hare
Information Studies Programme	University of Natal
Department of Information Science	University of Pretoria
Department of Information Science	University of South Africa
Department of Information Science	University of Stellenbosch
Department of Information Studies	University of the North
Department of Library and Information Science	University of the Western Cape
Department of Library and Information Science	University of Transkei
Department of Library and Information Science	University of Zululand

LIS education and training departments at Cape Technikon, Technikon Pretoria, Port Elizabeth Technikon, the University of the Free State and Potchefstroom University were not included in the survey as they have either recently closed down or are in the process of phasing out their programmes. The department at Port Elizabeth Technikon is currently in the process of phasing out its programmes and has stopped admitting new students since the beginning of 2002. The head of department confirmed this (Fourie 2002). The department at Technikon Pretoria is also currently phasing out its programmes, which is expected to be completed by the end of 2003. The head of department confirmed this (Lotter 2002). The library and information studies programmes at Cape Technikon are presently being phased out, which here too is expected to be completed by the end of 2003. Professor Van Aswegen who has headed these programmes confirmed this (Van Aswegen 2002). The department at the University of the Free State closed down in 1999 and the Humanities faculty office at this university confirmed this (Peyper 2002). The Department at Potchefstroom

University closed down at the end of 2001 and the administrative manager of the Faculty of Arts at this university confirmed this (Kruger 2002). It would have been difficult to include departments that are phasing out their programmes in the part of the survey involving educators because of the nature of some of the questions in the questionnaire. Furthermore, while programmes are being phased out the minimal staff that are left are often re-deployed into other departments in the faculty and thus, would not have been able to contribute meaningfully to the survey.

3.2.2.4.4 **Follow-up on the questionnaires**

Participants were given three weeks to complete the questionnaires. During these three weeks there was a steady return of questionnaires. The researcher kept a record of the sources of the returned questionnaires for follow-up purposes. By the end of three weeks there were many questionnaires still outstanding. Thus the process of following-up on un-returned questionnaires began. Letters stressing the importance of the study and the need to contribute to it by completing the questionnaire were mostly e-mailed, but sometimes faxed, to specific individuals whom the researcher was aware had not returned questionnaires. In some cases telephonic reminders were given. While in some cases these reminders were responded to immediately, requesting more time or indicating that the completed questionnaires had been placed in the mail, in other cases there were absolutely no responses. In some instances, for example where batches of questionnaires had been posted to heads' offices for distribution to past students or senior managers, follow-up with individual persons was not possible. Where possible, the researcher diplomatically approached these offices to ensure that these questionnaires had been distributed and requested if the relevant individuals could be encouraged to complete the questionnaires. In cases where individuals claimed that they had not received the questionnaire or that it had been misplaced, another questionnaire was immediately sent by post or electronically. As a result of the reminders many more questionnaires were returned.

After three weeks a second follow-up process was done. Effectively, the researcher remained open for acceptance of completed questionnaires for a period of three months (from the beginning of May 2002 to the end of July 2002). After this point it

was difficult to accept any more completed questionnaires as all data had been coded and captured.

3.2.2.4.5 **Return rate of questionnaires for employers**

A total of 455 of these questionnaires had been sent to heads, deputies and senior managers in provincial library services, major public library services, the National Library of South Africa, academic libraries including university and technikon libraries, special libraries or information services, major museum libraries and national and provincial archives. Seventy-seven completed questionnaires were eventually returned amounting to 17% of the total number of questionnaires sent out. Only 76 of the completed questionnaires were used in the study since the last questionnaire came in too late and could not be used. While this return rate might be considered low for generalisations to be made regarding the views of the LIS services employer population as a whole on first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment, it is still useful in revealing important views on this issue among this population and thus analysis and reporting here is still important. A few points, however, need to be made regarding the return of completed questionnaires in the specific categories mentioned above that make up the LIS services employer population.

There were low returns from the major public library services (there were responses from heads and/or senior managers from three of the seven major public library services surveyed), special libraries or information services (there were responses from 11 of the 170 surveyed), major museums (there were responses from five of the 16 surveyed) and archives (there were responses from two of the 13 surveyed). However, there were responses from heads and/or senior managers from seven of the nine provincial library services included in the survey and responses from 22 of the 37 academic (university and technikon) libraries surveyed. The latter is indeed very encouraging especially in the light of the fact that Stilwell (1997: 208) reports that “the provincial library services and their affiliated public libraries are the largest providers of employment in the LIS sector in South Africa”. Nassimbeni (1988: 172-

173) reported a similar trend for the 1980s when she pointed out that studies have shown that provincial library services and university and technikon libraries are among the biggest employers of graduates in the LIS services field. Ocholla (2001: 166), in his tracer study of University of Zululand (South Africa) graduates and scanning of job advertisements in newspapers, found that “public and academic libraries dominate the LIS segment of the employment market in South Africa”. In the light of these observations in the literature, the researcher is confident that even though the overall return rate of questionnaires from the employer population as a whole has been low, the study has been able to reach the ‘big LIS services employers’. It is unfortunate that heads and senior managers from the major public library services have responded so poorly to the survey as this sector too according to reports (Nassimbeni 1988: 172) is a large employer of graduates in the LIS services field. It was also encouraging seeing that both the National Librarian and the Deputy National Librarian had responded to questionnaires sent to them, which means that the study has received input from an important and high profile LIS service employer.

It must be further pointed out that the researcher had received requests from some of the larger libraries, for example academic libraries, requesting permission for one questionnaire to be completed jointly by the head and senior managers of the library either for time-saving reasons or they felt they could contribute more meaningfully to the research in this way. Section 3.2.2.2 has already outlined why questionnaires were sent individually to heads, deputies and senior managers of the larger libraries apart from the fact that different individuals in one organisation could possibly have different opinions on a particular issue relating to LIS education and training. Notwithstanding these reasons, the researcher, in view of the motivation behind the requests, granted permission for questionnaires from one library to be jointly completed by the head and senior managers. The researcher believed that this at least ensured input into the study by the library but at the same time it served to reduce the number of returns of questionnaires.

The overall return rate of questionnaires from the employer population seems to have been depressed largely by the low return of questionnaires from special libraries and information services. Ocholla (2000: 35) points out that information needs in host

organisations such as government ministries and departments (for example, parliament, the judiciary, research centres, joint state and corporate enterprises) and in the private sector “require fairly specialised information providers that may not necessarily have LIS educational backgrounds”. The emergence of virtual information services has accentuated this trend. For this reason, Ocholla points out, the special libraries and information services market “is shared between LIS graduates and those graduating with non-LIS qualifications”. Zaaiman (1985: 136) made a similar observation in the 1980s already when he pointed out that information officers in special information services are drawn from two sources. The one source is subject specialists who wish to enter into the new field of information work. They mostly have no formal education in information science, and learn their work on the job. The other source of information officers, explains Zaaiman, is qualified librarians.

The point that is being made is that, unlike the public library or academic library sector, special libraries or information services do not necessarily employ individuals with LIS education and training qualifications. This could be a possible explanation for why so many of the special libraries or information services did not respond to the questionnaires sent to them. In many cases the research being undertaken was irrelevant to them. In fact many of these special information services wrote back to the researcher explaining that they were unable to participate in the research, as they did not employ any individuals who had studied library and/or information science. From these communications the researcher was able to notice that many of these were one-person concerns, and also while many of them were affiliated to the LIASA Special Libraries Interest Group, they were not information providers per se but rather book-dealers, consultants on library automation and management computer software or involved in some activity related to libraries and information services. Unfortunately at the time when the researcher was selecting special library or information service participants from the LIASA Special Libraries Interest Group list for inclusion in the survey, it was difficult to make this out from just the name of the concern.

The researcher has attempted to point out some of the factors that have contributed to the low return rate on questionnaires sent to employers in the LIS services field. The researcher believes that while the overall return rate here was low and makes generalisations about the employer population as a whole difficult, there has been input from some significant quarters that needs to be analysed and reported.

3.2.2.4.6 **Return rate of questionnaires for past students**

A total of 554 of these questionnaires had been sent for distribution to past students, that is, graduates and diplomates in provincial library services, major public library services, the National Library of South Africa, academic libraries including university and technikon libraries, special libraries or information services, major museum libraries and national and provincial archives. Eighty-three completed questionnaires were eventually returned amounting to 15% of the total number of questionnaires sent out. Only 82 of the completed questionnaires were used in the study because one of the completed questionnaires was from a respondent who had completed a first level LIS qualification more than five years ago. The individual did not qualify to participate in the survey. Here too it must be pointed out that while this return rate might be considered low for generalisations to be made regarding the views of recent graduates and diplomates on first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment, it is still useful in revealing important views on this issue among this population and thus analysis and reporting here is still important. The problems associated with accessing this population have already been discussed in section 3.2.2.2 and in section 3.2.2.4.2. A further reason that makes generalisations difficult here is that the researcher had to resort to purposive sampling with which, as already explained in section 3.2.2.2, it is difficult to estimate how well the sample represents the population and this makes generalisation limited.

3.2.2.4.7 Return rate of questionnaires for educators

A total of 65 of these questionnaires had been sent to educators in thirteen LIS education and training departments or programmes based in universities and technikons in South Africa. Thirty-four completed questionnaires were eventually returned amounting to 52% of the total number of questionnaires sent out. There were responses from all 13 departments or programmes. These responses included responses from heads of departments or programmes from 12 out of the 13 departments or programmes. In most of these departments, which are generally small (on average between three and five staff members) and which according to literature reviewed in Chapter 2 seems to be an international trend, just one or possibly two staff members did not respond. The heads of one of these departments indicated that, on the basis of the fact that they no longer train in librarianship but in information science generally and therefore a number of the questions in the questionnaire did not apply to them, only one questionnaire was being submitted as a departmental response. However, in the bigger departments (ten staff members and over) of which there are just two in South Africa, there was generally a poor response to the questionnaire. It was unfortunate that the only head of department or programme who did not respond to the questionnaire was from one of these larger departments in the country. The researcher also believed that in the case of one of these larger departments the presence of various areas of specialisation such as information and knowledge management, publishing, multimedia and other aspects of the emerging information market at the first qualification level, made it difficult for some of the educators specialising in these areas to complete the questionnaire. This could be one of the possible reasons for the poor response from this particular department. At the same time it must be mentioned that this same department also offers first level qualifications specialising in library science and information science and thus could have still made a contribution to the study.

According to Babbie (1990: 182) “a response rate of at least 50 percent is generally considered adequate for analysis and reporting”. Thus an overall response rate of 52% from the educator population is adequate for analysis and reporting on this aspect of the survey. Furthermore, based on the fact that the total population was surveyed here

and that there was a more than 50% response rate, generalisations for the whole population based on this analysis may be made.

3.2.2.5 **Analysis of data**

Data collected from the survey of the views of past students, employers and educators in the LIS field regarding first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment, needed to be analysed in order to establish findings and draw conclusions related to the objectives of the study. This data needed to be subjected to certain statistical or other procedures so that the researcher could detect consistent patterns within the data that “reveal things of interest about the social world” (Neuman 1997: 294).

All three of the questionnaires used in the study consisted of structured items and unstructured items. Two of the questionnaires had a single item each that requested documentary data in the form of job contents of particular job titles to be attached to completed questionnaires. With regard to the structured items, data had to be reorganised in order to make it suitable for computer processing as the computer can “quickly and accurately process data and correlate variables” (Hult 1996: 63). According to Durrheim (1999b: 98) the first stage of data analysis is the preparatory stage during which the raw data, for example completed questionnaires, are transformed into a data set in machine-readable format and this preparatory stage involves coding, entering and cleaning of data.

Coding involves applying a set of rules to data to transform information provided, for example in a completed questionnaire, into meaningful numerical format that can be read by a computer (Durrheim 1999b: 98). Coding keys were drawn up for data in each of the three sets of completed questionnaires. Numerical values were assigned to all limited response options including scaled responses, in each of the three coding keys drawn up. Missing values (information) were given the code zero (0). The responses to unstructured items as well as the documentary data (job contents attached to certain completed questionnaires) were subjected to content analysis. “Content analysis is a technique for gathering and analysing the content of text” and allows the

researcher to reveal the content of the text (Neuman 1997: 272-273). The researcher, in content analysis, creates a system for recording specific aspects on the content. In the case of responses to unstructured items in the questionnaires as well as the “other” category of structured items, the content of these responses were analysed and reduced to common ‘themes’, which were then coded. According to Neuman this coding “turns aspects of content that represent variables into numbers” which are entered into a computer for statistical analysis that allows the information in the content being analysed to be presented in the form of tables or graphs so that the researcher can identify certain trends or patterns. Neuman sees this as a quantitative version of content analysis. With regards to the job contents what Neuman terms as an interpretive or qualitative version of content analysis, was adopted here. Data was reduced to key functions under specific job titles in order to identify patterns or trends. Brause (2000: 118) advises that a primary goal in analysing data “is to reduce the information you have collected to a manageable database, grouping your information in useful ways”. Brause goes on to point out that “this reduction process potentially includes creating categories which describe your data by identifying common qualities or patterns”. Content analysis of job contents in the current study involved very much this process. Thus the raw data contained in the three sets of completed questionnaires were prepared for analysis by means of numerical coding as well as quantitative and qualitative content analysis.

The numerical codes representing information or values in the questionnaires had to be entered into a computer in a format that is compatible with the statistical computer package to be used to analyse the data. Most computer statistical packages designed for data analysis require the data in a grid format where the data for each subject or case are usually entered in a row and the columns represent scores (observations) on specific variables (data) (Durrheim 1999b: 100). Thus the numerical codes assigned were entered onto a spreadsheet using *Microsoft Excel*, which is compatible with the *Statistical package for the social sciences (SPSS)* that was the statistical package used for the analysis of data. This was done for each of the three sets of completed questionnaires resulting in the generation of three data sets. The results of the qualitative content analysis, which were not part of the entering of numerical codes

into the computer, were simply attached to the relevant data set for use during the presentation and interpretation of results stage.

The final stage in the preparation of data for analysis is cleaning the data. “Errors made when coding or entering data into a computer threaten the validity of measures and cause misleading results” (Neuman 1997: 297). Therefore it is important to check the accuracy of the coding and entering and to ‘clean’ the data if there are any errors. The researcher did verify the coding and check the entering of data for all three sets of completed questionnaires, and ‘cleaned’ the data sets of any errors that had crept in during the coding or entering stages.

Once the three data sets for the three sets of completed questionnaires were generated they were analysed statistically. Descriptive analysis of the data (mainly frequency and percentage distributions), using the *SPSS* statistical package, was mostly done. “Descriptive analysis aims to describe the data by investigating the distribution of scores on each variable, and by determining whether the scores on different variables are related to each other” (Durrheim 1999b: 101). Descriptive analysis is usually done first to help the researcher to gain an initial impression of the data that were collected. Based on the initial descriptive statistics, further data analysis may be done to allow the researcher to determine trends in and draw conclusions about the populations being studied and based on this, to draw conclusions about the study as a whole (Durrheim 1999b: 101). For the purposes of this study, with the exception of a few cross-tabulations between variables (again using frequency and percentage distributions) to determine relationships between variables, further data analysis was not necessary.

3.3 **Evaluation of the research methodology**

The data collection instruments, that is, the three questionnaires generated the data required for the study, which together with the review of related literature, enabled the researcher to address the research questions generated for the study. Descriptive statistical analysis as well as content analysis of data generated by the questionnaires, were considered appropriate and adequate for the study.

While the return rates of questionnaires, especially from LIS services employers and past students, might be considered low for generalisations to be made regarding the views of these populations as a whole on first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment, they were still useful in revealing important views on this issue among these populations and thus analysis and reporting here were considered important.

3.4 **Summary**

This chapter has described the research methodology and data collection techniques employed in the study. It has also pointed out problems and limitations in the methodology and what efforts were made, where possible, to alleviate some of the effects of these problems and limitations. This chapter has also outlined how the data that was collected for the study was analysed. It also provided a brief evaluation of the research methodology used. The next chapter presents findings based on analysis of the data collected for the study via the data collection instruments.

CHAPTER 4:

Presentation of Findings

4.1 Introduction

The previous chapter set out the research design that was employed to achieve the objectives of the study. It described the research methodology and data collection techniques employed. It also outlined how the data that was collected for the study was analysed. The main focus of this chapter is the presentation of findings based on analysis of the data collected for the study via the three questionnaires.

4.2 Data analysis

It has been pointed out Chapter 3 that responses to open-ended items as well as the documentary data (job contents attached to certain completed questionnaires) were subjected to content analysis. It has also been pointed out in Chapter 3 that analysis of coded data was done using mostly descriptive statistics, that is, frequency and percentage distributions. It should be noted that where percentage distributions are presented in findings these have been rounded off to the first decimal point where necessary which means at times total percentages would be a point or two under or over 100%.

4.3 Presentation of findings

Findings are presented for each of the three data gathering instruments, that is, each of the three questionnaires. Findings are presented in terms of themes identified by the researcher as being areas that the data gathering instruments gathered data about. Where appropriate, findings are represented by means of graphs and tables. In other places, especially with regard to responses to open-ended items in the data gathering instruments, the narrative form is used to present findings. Some cursory comments

are made in this chapter, especially with regard to issues that are not central to the study. However, detailed discussion with respect to issues relating to the research questions and objectives of the study are done in Chapter 5.

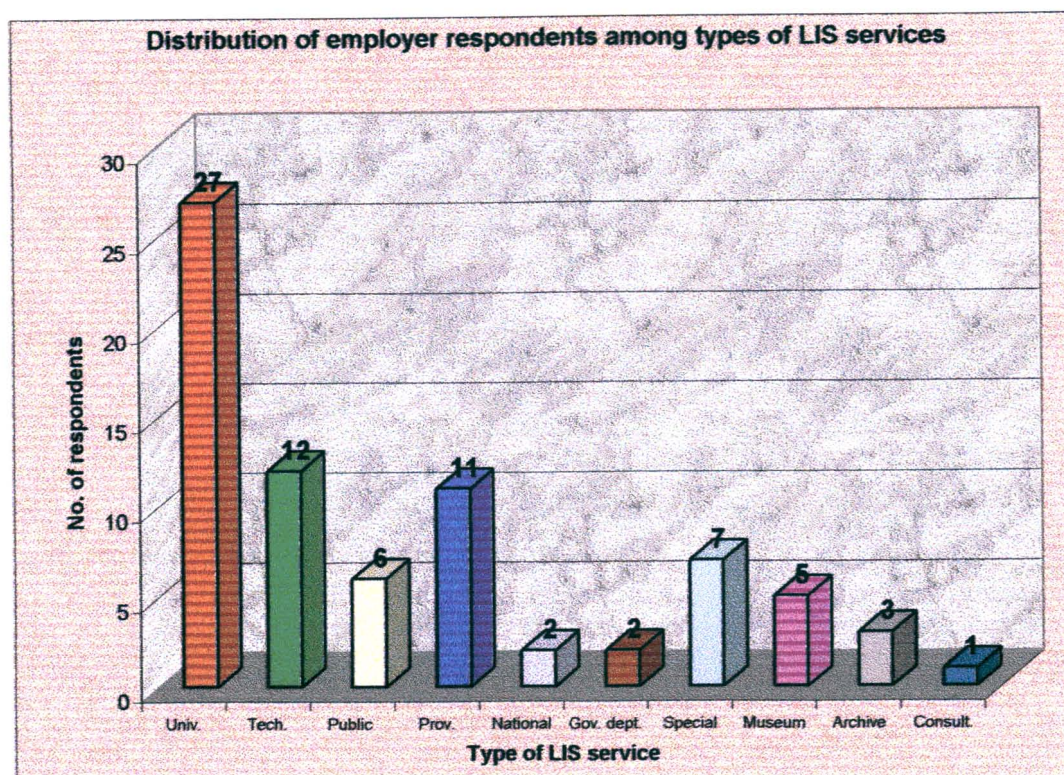
4.3.1 **Survey of employers**

Questionnaires (Appendix B) had been distributed to heads, deputies and senior managers of major LIS services in South Africa, in order to gather data on their views regarding first level LIS qualifications and their relevance to the LIS services work environment. Out of a total of 455 questionnaires that were distributed to heads, deputies and senior managers of major LIS services in South Africa 77 completed questionnaires, or 17 % of the total number of questionnaires distributed, were returned to the researcher. Only 76 of the completed questionnaires were used in the study because one of the completed questionnaires was excluded from the study for reasons already discussed in the previous chapter.

4.3.1.1 **Distribution of respondents among types of LIS services**

Figure 6 graphically represents the distribution of respondents among the various types of LIS services. Respondents were distributed among university libraries, technikon libraries, public libraries, provincial library services, the National Library, government department libraries or information services, special libraries or information services, museum libraries, archives and a consultancy dealing with library automation and management computer software. Most respondents (39 or 51.3% of the 76 respondents) came from academic libraries, that is, university and technikon libraries. This is not surprising because, as discussed in the previous chapter, academic libraries are one of the larger employers of LIS graduates.

Figure 6



4.3.1.2 Designations of respondents

It was important for this questionnaire to be completed by heads, deputies or senior managers of LIS services, as these are the individuals involved in recruitment and policy or decision-making in LIS services. It was essential to ascertain their views on first level LIS qualifications offered at universities and technikons in South Africa and their relevance to the LIS work environment. While there was a broad range of designations among the respondents, those that featured prominently included head librarian (19.7% of the 76 respondents), director (14.5% of the respondents), assistant director (9.2% of the respondents), deputy director (7.9% of the respondents) and principal librarian (9.2% of the respondents). Other designations indicated but comprising relatively small percentages of the 76 responses included, chief executive officer (CEO) of the National Library, deputy national librarian, city librarian, assistant city librarian, district librarian, university librarian, deputy university librarian, chief director, senior deputy director, branch librarian, head of department,

senior librarian, manager, archivist and information officer. All of these designations indicate seniority in terms of position in the LIS organisation and the actual designations or titles used seem to depend on the context in which the LIS service is located.

4.3.1.3 **Highest professional or academic qualifications of respondents**

It was necessary to glean information about respondents' highest qualifications from the survey of employers as the researcher believes that the qualification status of an employer may influence the way the individual views entry-level qualifications in the field and their relevance to the work environment. Twenty-six point three percent (26.3%) of the 76 respondents had Bachelor of Information Science Honours (B.Bibl.(Honours)) and 25% of the respondents had Masters in Library and/or Information Science. There were three respondents (3.9%) with doctoral degrees in the LIS discipline. Seven point nine percent (7.9%) of the respondents had masters' degrees outside this discipline (for example, Masters in Business Administration). Three of the respondents (3.9%) had honours degrees outside the LIS discipline. Thus 67% of the 76 respondents held post-graduate degrees the majority of which were in the LIS discipline. Eleven point eight percent (11.8%) of the 76 respondents had the Post-graduate Diploma in Library and/or Information Science and 10.5% had the B.Bibl. (or equivalent four-year university degree). Thus 89.3% of the respondents held university degree qualifications. Three (3.9%) of the 76 respondents had the Bachelor of Technology in Library and Information Studies (B.Tech.(LIS)) and two (2.6%) of the respondents had the National Diploma in Library and Information Studies/Practice/Services (ND: LIS). Thus 6.5% of the 76 respondents held technikon LIS qualifications. One of the respondents had a Lower Diploma in Library and Information Science, which as discussed in the previous chapter, has more recently been phased out by universities in South Africa, one of the respondents held a Library Association (United Kingdom) LIS qualification and one of the respondents did not respond to the question enquiring about the individual's highest professional or academic qualification. The small percentage of respondents with technikon

qualifications may be explained by the fact that technikon LIS qualifications are relatively recent phenomena appearing on the LIS scene in the late 1980s, as revealed by the literature reviewed in Chapter 2.

The researcher also found it necessary to ascertain how long ago these qualifications were attained as this too could impact on the way the individual views entry-level qualifications in the field and their relevance to the work environment. One of the 76 respondents attained his/her highest professional or academic qualification between 1960 and 1969. Ten of the respondents attained their highest professional or academic qualifications between 1970 and 1979, that is, twenty-five to thirty years ago. Twenty-four attained these qualifications between 1980 and 1985, that is, fifteen to twenty years ago. Nine of the respondents attained these qualifications between 1986 and 1990, that is, ten to fifteen years ago. Sixteen attained them between 1991 and 1995, that is, seven to ten years ago. Thus 79% of the 76 respondents now occupying senior positions in LIS services attained their highest professional or academic qualifications roughly ten years and more ago. Only 9.2% and 10.5% of the 76 respondents attained their qualifications between 1996 and 2000 and 2001 and after, respectively. One of the respondents did not respond to the question enquiring when the respondent's highest qualification was attained. Thus a large number of respondents occupying senior positions in LIS services have attained their highest qualifications within the previous three decades. This is not surprising considering the seniority of these individuals in terms of age and position in LIS services organisations.

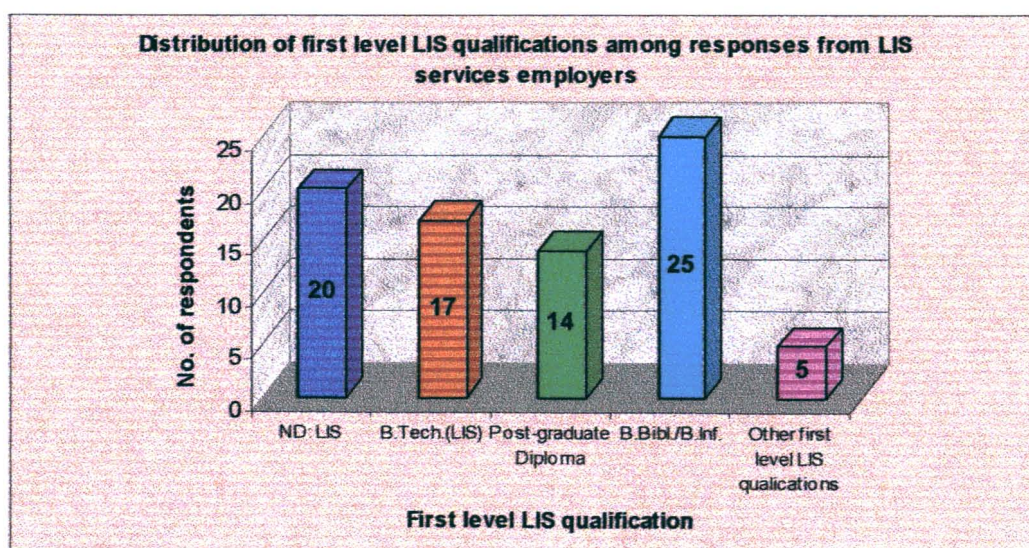
4.3.1.4 **Staff members with first level LIS qualifications**

Respondents had been asked to indicate if there were any staff members in the LIS service or section of which the respondent is the head or the deputy or a senior manager, who have in the last five years (1998-2002) attained a ND: LIS, a B.Tech.(LIS), a Post-graduate Diploma in Library and/or Information Science, a B.Bibl. (or equivalent four-year university degree) or any other first level LIS qualification. *Figure 7* captures the distribution of first level LIS qualifications among

the 76 responses from employers. It does seem that the four-year university LIS degree is the more common qualification among recent graduates in LIS services employment. It is a more established qualification according to the literature.

The 'other first level LIS qualifications' in *Figure 7* include the Lower Diploma in Library and Information Science that, as indicated already, has more recently been phased out by universities in South Africa, the Diploma in Information Science offered by a correspondence university in South Africa and the Higher Diploma in Archival Science, a specialist qualification offered by some universities. As already indicated in the methodology chapter, the study does not include 'odd' qualifications offered by individual institutions. The focus is on first level LIS qualifications commonly offered by LIS education and training departments throughout the country.

Figure 7

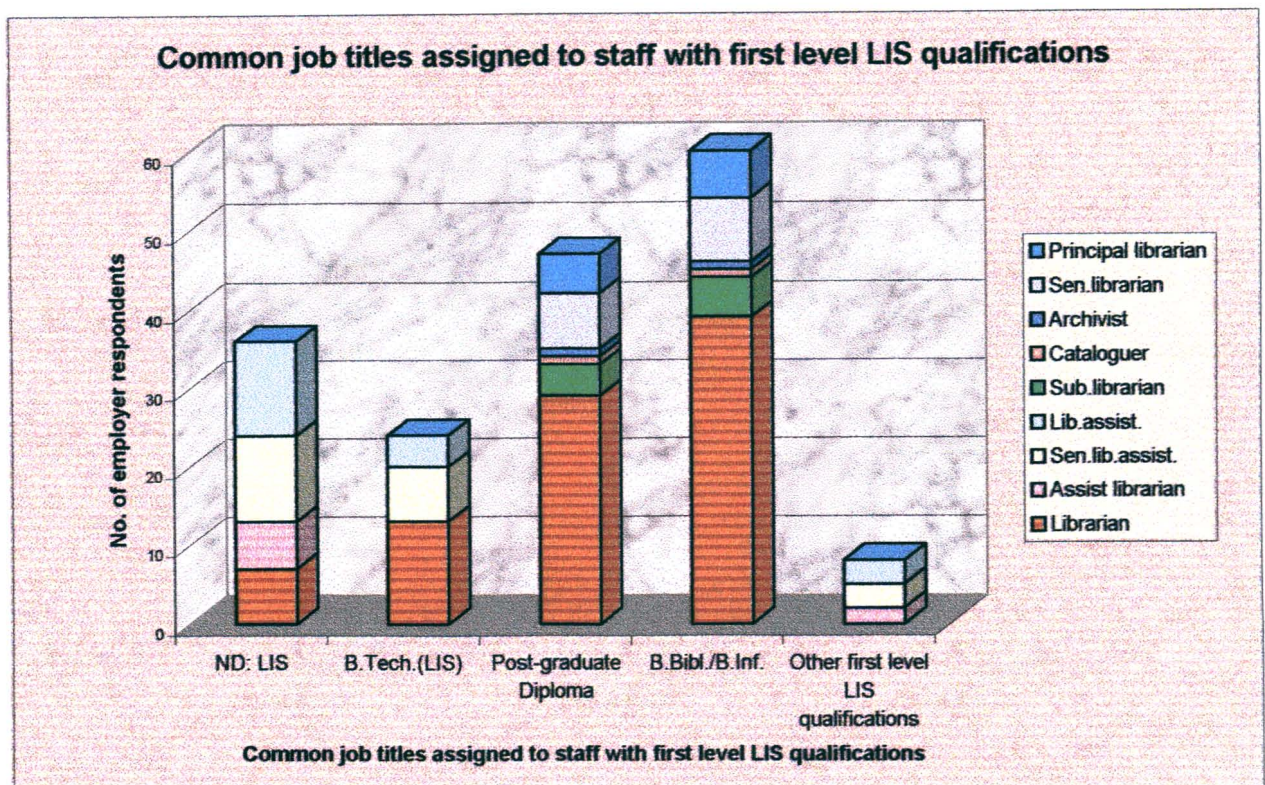


4.3.1.5 Job titles assigned to staff with first level LIS qualifications

Respondents had been asked to indicate what job titles were assigned to staff members in their LIS services or sections with any of the following first level LIS qualifications as their highest qualifications: a ND: LIS, a B.Tech.(LIS), a Post-graduate Diploma in Library and/or Information Science, a B.Bibl. (or equivalent

four-year university degree) or any other first level LIS qualification. *Figure 8* captures the common job titles assigned to staff with the various first level LIS qualifications mentioned above. The ‘other first level LIS qualifications’ in *Figure 8* include the Lower Diploma in Library and Information Science that has recently been phased out by universities in South Africa and the Diploma in Information Science offered by a correspondence university in South Africa. It does appear that there are certain job titles that are common with certain first level LIS qualifications.

Figure 8

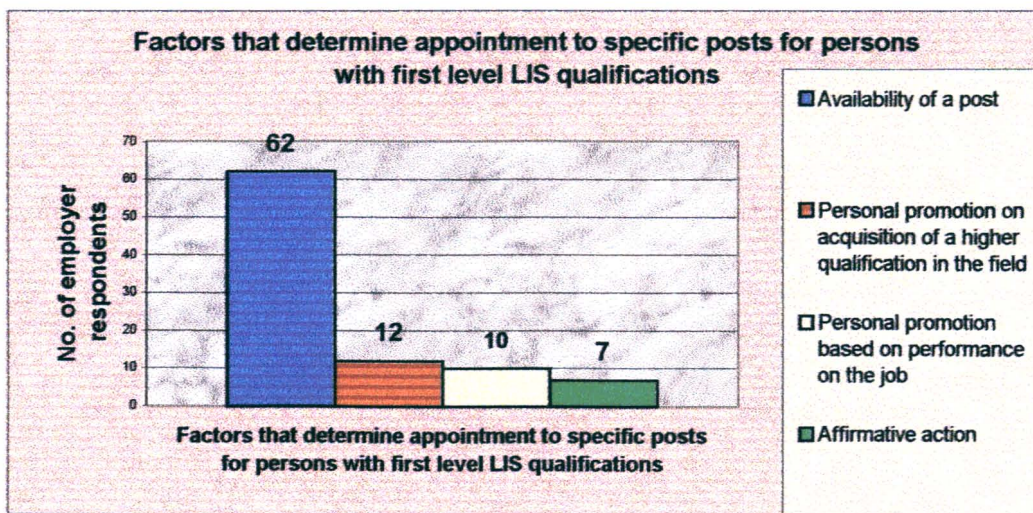


4.3.1.6 Factors that determine appointment to specific posts for persons with first level LIS qualifications

It was necessary to ascertain what factors in LIS services determine appointment to posts assigned for persons with first level LIS qualifications as it is not uncommon to find in LIS services organisations individuals with first level LIS qualifications but

not occupying positions commensurate with these qualifications (as evident in *Figure 8*). In many cases this can be explained by the fact that while individuals might have attained a higher qualification in the field there are no posts available to which they could be assigned. This is supported by the finding that a significant percentage of the 76 respondents (81.6%) indicated that availability of a post was a factor that determined appointment to posts assigned for persons with first level LIS qualifications. This response is supported by *Figure 9*.

Figure 9



4.3.1.7 **Contents of job titles specified**

Only heads or deputies of LIS services were asked to provide the job contents of job titles that they had indicated were currently assigned to individuals holding first level LIS qualifications in their organisations. As only heads or deputies of LIS services were included in this item, the total number of respondents was less than 76. (Fifty-one of the 76 respondents qualified to supply job contents.) Furthermore, many heads and deputies did not respond to this item some of them indicating that job contents were for some reason, for example restructuring in the organisation, currently unavailable. Thus the researcher did content analysis of just those job contents received. (Fifteen of the 51 respondents supplied job contents.) Some of the types of LIS services for which job contents had been received included university libraries,

technikon libraries, provincial library services, public libraries, special libraries or information services, museum libraries and archives, which with the exception of the National Library, covers the range of LIS services that had been targeted in this survey of LIS services employers.

Information provided in the job contents received were reduced to key functions under specific job titles in order to identify patterns or trends. Appendix E presents these key functions together with the specific job titles and, where information was forthcoming, with the qualification requirements for the job. These job contents come from a diverse range of LIS services contexts and for this reason it was not possible to present in Appendix E generic job contents for various job titles such as library assistant, senior library assistant, and so on. Very often the job contents relate to the LIS services context in which the job is located. The researcher has thus, in Appendix E, clustered the job titles according to similar levels of job titles in order to show similarities in the level of responsibility and complexity of tasks performed at specific levels (refer to the colour-coding of job titles in Appendix E). While all heads and deputies among the 76 respondents did not provide job contents for the job titles that they had indicated were currently assigned to individuals holding first level LIS qualifications in their organisations, those that had been provided and which are reflected in Appendix E, are a fair reflection of the range of job titles (and their key functions) that are assigned to individuals holding first level LIS qualifications in LIS services.

It should be noted that the findings on job titles assigned to staff with first level LIS qualifications revealed job titles ranging from library assistant up to director in LIS services although the more common job titles for this level of qualifications are, for example, librarian or senior library assistant depending on what the first level LIS qualification is (as reflected in *Figure 8*). Thus Appendix E reflects this range of job titles and their key functions. Appendix E also serves to provide a picture of the types of tasks currently being performed by individuals holding first level LIS qualifications in LIS services. At the same time it should be pointed out that with the more senior

positions (for example, director or deputy director) years of experience of the incumbent and not just the first level LIS qualification warrant the performance of tasks at that level. It should also be pointed out that while some of the job contents provided included the qualification requirements for the jobs, others did not. There is the possibility that this information was not made available by some employers as it is regarded as being confidential. Some employers might prefer not to stipulate qualification requirements as this allows them more flexibility during recruitment and selection. It also needs to be pointed out that in reducing the information provided in the job contents to key functions under specific job titles, as far as possible the terminology used, especially those unique to the particular LIS services context, had been retained so as not to alter the essence the job contents.

Once the information provided in the job contents had been reduced to key functions under specific job titles it was possible to make certain observations relating to the study and these are discussed in Chapter 5.

4.3.1.8 **Employers' views on the National Diploma: Library and Information Studies programme**

Employers had been asked to rate the modulesⁱ that make up the National Diploma: Library and Information Studies (ND: LIS) programme. This is a three-year national LIS programme offered by technikons in South Africa. Employers had been asked to rate each one of the modules that had been listed (together with brief descriptions) in the questionnaire (Appendix B) in terms of relevance to their current job environment using a rating scale of 1 to 5 (1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant). It was considered important to provide brief descriptions of the modules so that respondents would have an idea of what is taught in a particular module in the programme. While this item had to be responded to only by those employers who had staff members in their LIS services or sections who had in the last five years attained this qualification, a few employers who did not have

Table 4.1

Employers' ratings of modules in the ND: LIS programme (Total number of respondents = 26)
(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
Information Retrieval I	Bibliographic control tools and processes; reference sources; OPAC searches.	0	0	0	7	19	100
End-user Computing	Computer types, hardware and software; keyboard skills; operating systems and environments; software packages; computer laboratory practicals.	0	0	1	10	15	96.1
Library and Information Retrieval II	Subject analysis; descriptive cataloguing; classification; subject headings; introduction to indexing, abstracting and thesaurus construction.	0	1	0	10	15	96.1
Library and Information Technology II	General purpose application software; library specific databases; database management systems; search technology and software; networks; computer laboratory practicals.	0	0	1	10	15	96.1
Information Retrieval III	Print and electronic reference sources including the Internet; the reference process; database construction; computer laboratory practicals.	0	1	0	7	18	96.1
Experiential learning	Fieldwork in a recognised library or information service; distributed over the three years as individual academic programmes require.	0	0	1	5	20	96.1
Library Promotion	Marketing the library; press relations and public relations programmes; library publications; material and techniques in library promotion.	0	1	2	11	12	88.4
Library and Information Practice II	The book trade and publishing; collection development; acquisitions procedures; serials control; library administration.	0	1	3	11	11	84.6
Library and Information Technology I	Office equipment; formats of recorded information; ergonomics and library/office safety; computer laboratory practicals.	0	2	3	10	11	80.7
English	Communication theory; correspondence; oral communication; intercultural communication.	0	1	4	9	12	80.7
Information Practice III	Introduction to readership; introduction to management techniques and financial control; introduction to research methodology	0	2	3	10	11	80.7
Library and Information Practice I	Various information environments and their aims and functions; the LIS profession; legislation affecting information provision.	0	2	4	9	11	76.9
User Studies I	Importance of User Studies to the LIS services worker; the reading process; reading motives, needs and interests; reader typology.	0	3	3	13	7	76.9
User Studies III	The community survey; the community profile; importance of user studies in collection development and material selection.	0	3	3	6	14	76.9
Library and Information Technology III	The digital library: evolution; strategic planning; funding and costs; collection and preservation; retrieval.	0	3	3	6	14	76.9
IsiZulu or IsiXhosa or any other African language	Intercultural communication; oral communication; writing skills.	2	2	6	8	8	61.5
Literature Studies	History and appreciation of: children's literature; African literature and African literature in English; English literature.	0	5	5	11	5	61.5
Psychology in Organisations	The value and application of psychology in libraries and information centres.	0	4	6	10	6	61.5
User Studies II	The adult reader; the neo-literate reader; the child as a reader; the teenage reader; library services for these various categories of readers; user education.	0	4	7	5	10	57.6
Human Studies	History and appreciation of art and music; orientation to science and technology; societal themes.	1	4	8	9	4	50
Afrikaans	Correspondence; engaging with Afrikaans texts; basic discussion on topical issues.	2	8	5	5	6	42.3

such staff members also responded to this item. They possibly wanted to express the way they felt about the programme. The researcher believed that this was valuable input and should not be discarded and thus included it in the study. Twenty-six or 34.2% of the 76 respondents responded to this item.

Table 4.1 presents the modules (together with brief descriptions) in the ND: LIS programme with frequency distributions for each of the five points on the five-point scale. The last column of the table (percentage relevance) adds the frequency distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 26 respondents who responded to this item thus indicating the relevance of the module as viewed by these employers.

An evident trend appears to be that those modules that are relevant to LIS services in general received relatively higher percentage relevance from employers (95% and above) compared to modules aimed at specialised information environments and those that are general and somewhat peripheral to the LIS services work environment.

The relatively low percentage relevance received by some of these modules is reflected in the following suggestions and opinions provided by some of the employers:

- 15.4% of the 26 respondents suggested that Afrikaans should be made an optional module;
- 11.5% believed that Human Studies is not relevant to the ND: LIS programme;
- 7.7% believed that Literature Studies is not relevant to the programme;
- 3.8% suggested that African languages should be made optional modules; and
- 3.8% believed that Psychology in Organisations is not relevant to the programme.

Employers had been asked to make suggestions about aspects, other than those already included in the ND: LIS programme, which should be added to the programme. Suggestions made included:

- customer care;
- information literacy;
- interpersonal skills;
- budgeting;
- service evaluation techniques;
- Information Retrieval II should include Library of Congress (LC) subject headings;
- user education must be an independent module;
- the programme should allow for specialisation in, for example, public librarianship, academic librarianship, research librarianship, and so on;
- teamwork;
- strategic planning;
- communication;
- labour relations;
- African librarianship;
- community and development work;
- complete theoretical knowledge;
- experiential learning programme should be longer;
- libraries and their role in the community (their role in fighting poverty by, for example, providing literacy classes);
- library advocacy; and
- conflict management.

Some of these aspects are probably embedded in the modules currently being offered as part of the ND: LIS programme. However, employers surveyed probably believe that these aspects should feature more prominently in the programme. It is interesting that there has been a suggestion for specialisation in the programme. The literature

does suggest that there is a lack of specialisation at the basic LIS qualification level in South Africa.

4.3.1.9 **Employers' views on the Bachelor of Technology: Library and Information Studies programme**

Employers had been asked to rate the modules that make up the Bachelor of Technology: Library and Information Studies (B.Tech.(LIS)) programme. This is a national LIS programme offered by technikons in South Africa at the fourth level of study after completion of the three-year ND: LIS. Again, employers had been asked to rate each one of the modules that had been listed (together with brief descriptions) in the questionnaire (Appendix B) in terms of relevance to their current job environment using a rating scale of 1 to 5. Nineteen or 25% of the 76 respondents responded to this item.

Table 4.2 presents the modules (together with brief descriptions) in the B.Tech.(LIS) programme with frequency distributions for each of the five points on the five-point scale. Again, the last column of the table (percentage relevance) adds the frequency distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 19 respondents who responded to this item thus indicating the relevance of the module as viewed by these employers.

Here again, those modules that are relevant to LIS services in general received relatively higher percentage relevance from employers (84% and above) compared to modules aimed at specialised information environments and those that are general and somewhat peripheral to the LIS services work environment.

When respondents to this item had been asked if any of the modules should be removed from the B.Tech.(LIS) programme, none were suggested. This may be interpreted as employers recognising the fact that while some of the modules might

not be relevant to their individual job environments they probably are to other more specialised environments. Such modules are ideal for the elective aspects of an

Table 4.2

Employers' ratings of modules in the B. Tech.(LIS) programme

(Total number of respondents = 19)

(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
Information Retrieval IV	Theory and application of indexing, abstracting and thesaurus construction; web page design; online information retrieval.	0	0	1	7	11	94.7
Research Methodology	Research planning and design; data collection; literature review; research techniques; writing research reports; research project.	0	1	1	7	10	89.4
Library and Information Practice IV	Organisational theory, politics and culture; personnel management; strategic management.	0	1	2	6	10	84.2
Information Management	Role and importance of the information services department in an organisation; information resource management; fundamentals of information systems.	0	1	2	7	9	84.2
Information User Studies	The information user: attitudes to information, information needs, information seeking behaviour.	2	1	0	2	14	84.2
Library and Information Technology IV	Management of a digital library; advanced IT developments.	1	1	4	5	8	68.4
Philosophy of Library and Information Science	Different library and information science philosophers; influence of certain philosophical perspectives.	2	5	2	4	6	52.6
Readership for Semi-literates	Literature and literary resources for adult learners; organisation and administration of adult literacy; policy issues affecting adult literacy.	0	6	4	5	4	47.3
Book Conservation	The role of preservation in library management; the nature of library materials and agents of deterioration; techniques of conservation.	2	3	5	4	5	47.3
Children's Library Practice	Child development; children's literature; services offered by the children's library; management of the children's library.	1	5	6	2	5	36.8

academic programme. Respondents had also been asked to make suggestions about aspects, other than those already included in the B.Tech.(LIS) programme, which should be added to the programme. Suggestions made included:

- financial management (including budgeting);
- information and communication technologies;

- knowledge management;
- teaching and presentation skills;
- people and communication skills;
- professional communication skills (such as techniques in writing reports, preparing news releases and so on);
- practical skills in database searching;
- labour relations;
- library ethics;
- conflict management;
- conflict management to handle difficult users;
- critical thinking;
- customer care;
- information literacy;
- strategic planning;
- project management;
- community and development work;
- library advocacy;
- bibliographic description; and
- promoting reading.

Here too, as with the ND: LIS programme, some of the suggestions made are probably embedded in the modules currently being offered as part of the B.Tech.(LIS) programme but employers probably believe that these aspects should feature more prominently in the programme. It is interesting to note that some of the aspects suggested here for inclusion in the B.Tech.(LIS) programme has also been suggested for inclusion in the ND: LIS programme, for example, financial management, communication skills, labour relations, conflict management, customer care, information literacy, strategic planning, community and development work and library advocacy. These are obviously aspects that employers see as being crucial to the LIS services work environment. It is also interesting to observe the suggestion for inclusion of teaching and presentation skills in the programme. This points to the

importance of user education, for which such skills are necessary, in the LIS services work environment.

4.3.1.10 **Employers' views on the Post-graduate Diploma in Library and/or Information Science programmes**

Employers had been asked to rate the modules that make up the Post-graduate Diploma in Library and/or Information Science programmes offered by universities in South Africa. This programme is titled differently at different universities, for example, Post-graduate Diploma in Information Science or Library and Information Science or Information Studies. This study, for reasons of brevity, will refer to this programme as the Post-graduate Diploma in Library and/or Information Science or simply as the Post-graduate Diploma. This post-graduate diploma programme is offered by universities in South Africa at the fourth level of study after completion of a bachelor's degree in any field. Here too, employers had been asked to rate each one of the modules that had been listed (together with brief descriptions) in the questionnaire (Appendix B) in terms of relevance to their current job environment using a rating scale of 1 to 5. Sixteen or 21% of the 76 respondents responded to this item.

Table 4.3 presents modules (together with brief descriptions) generally included in these Post-graduate Diploma programmes at universities in South Africa. These modules are presented with frequency distributions for each of the five points on the five-point scale. The last column of the table (percentage relevance) adds the frequency distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 16 respondents who responded to this item thus indicating the relevance of the module as viewed by these employers.

Table 4.3

Employers' ratings of modules in the Post-graduate Diploma programmes

(Total number of respondents = 16)

(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
Management of Libraries and Information Centres	Management theories; basic principles of management and their application in libraries and information centres.	0	0	0	6	10	100
User Studies	Information needs assessment and different user groups; basic research methodology in user studies; design of information literacy programmes.	0	0	0	5	11	100
Information Resource Management	Fundamentals of information systems; evaluation and security and control of information systems.	0	0	0	7	9	100
Automation of Libraries and Information Centres	Computerisation of library operations; information resource sharing networks; various computer (LIS) packages in use.	0	0	0	6	10	100
Databases and Database Production	Categories and applications of databases and query languages; principles of database construction.	0	0	0	10	6	100
Bibliographic Description	Theory, principles and application of descriptive cataloguing.	0	1	0	7	8	93.8
Information Resources and Retrieval	Principles and theory of reference and bibliographic work and services; the reference process; selection and evaluation of non-electronic and electronic reference and bibliographic tools.	0	0	1	1	14	93.8
Organisation of Information and Materials	Subject analysis; classification; subject headings; indexing systems.	0	0	1	6	9	93.8
Strategic Planning	Development of strategic plans; national development plans centred on the use of information.	0	0	1	5	10	93.8
Research	Basic research methodology; research project.	0	0	1	7	8	93.8
Fieldwork and Practicals	Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; visits to various libraries and information services; computer laboratory practicals for computer related aspects of instructional offerings.	0	0	1	7	8	93.8
The Information Society	LIS systems, products and services; introduction to the LIS profession; use of information in the contexts of development and globalisation.	0	0	2	6	8	87.5
Records and Documents Management	Components of records management programmes; setting up records management programmes; managing electronic records.	0	1	1	8	6	87.5
Information Delivery Systems	Visual displays; newspapers; repackaging information in pamphlet form; information delivery in rural areas.	0	2	1	7	6	81.3
Information and Communication Technologies	Information processing and computers; basic computer configuration; operating systems; application software.	0	0	3	6	7	81.3

While most of the modules included in Post-graduate Diploma programmes at South African universities show a high percentage relevance (90% and over) thus demonstrating that they are considered by employers to be very relevant to their current job environments, one or two modules, again those that are aimed at specialised LIS services environments as well as those of a more general nature and possibly not directly relevant to the LIS services work environment, received relatively lower percentage relevance.

When respondents to this item were asked if any of the modules should be removed from Post-graduate Diploma programmes, none were suggested. This response is very much in keeping with the generally high percentage relevance received by all the modules (over 80%) including those aimed at specialised information environments. Respondents had also been asked to make suggestions about aspects, other than those already included in Post-graduate Diploma programmes, which should be added to the programme. Suggestions made included:

- more hands-on training with electronic resources (for example, database searching, Internet searching);
- collection development;
- marketing the library;
- theory **and** practice of classification should be included - currently there is too little focus on theory of classification, especially the different kinds of classification systems (for example, Library of Congress classification is neglected);
- budgeting;
- library ethics;
- labour relations;
- human resources management;
- African librarianship;
- written communication;
- project management;
- knowledge of world publishing; and

- physical library planning.

Here too, as with the other LIS programmes, some of these aspects are probably embedded in the modules currently being offered as part of Post-graduate Diploma programmes but employers probably believe that these aspects should feature more prominently in the programmes. It is interesting that aspects such as marketing or promoting the library, financial management (budgeting), library ethics, labour relations, written communication and project management have come up again as aspects that should be included in LIS programmes, demonstrating that these aspects are important in the LIS services work environment. African librarianship too has been suggested previously for inclusion in LIS programmes and NEPI (1992), Nassimbeni, Stilwell and Walker (1993), Manaka (1990) and Underwood (1996) have all emphasised the importance of LIS education and training in South Africa taking cognisance of the local and African context.

4.3.1.11 **Employers' views on the Bachelor of Library and Information Science or equivalent four-year university programmes**

Employers had been asked to rate the LIS modules that are part of the B.Bibl. or equivalent four-year LIS programmes offered by universities in South Africa. This four-year degree programme is more recently at some institutions being called the Bachelor of Information Science. The programme generally consists of a prescribed number of modules, a certain number of which are library and/or information science (LIS) modules. Again, employers had been asked to rate each one of the LIS modules that had been listed (together with brief descriptions) in the questionnaire (Appendix B) in terms of relevance to their current job environment using a rating scale of 1 to 5. Thirty or 39.5% of the 76 respondents responded to this item. The higher number of respondents to this item compared to the item that required employers to rate modules from Post-graduate Diploma programmes, concurs with findings in section 4.3.1.4 that the four-year university LIS degree is the more common qualification among recent graduates in LIS services employment.

Table 4.4 presents LIS modules (together with brief descriptions) generally included in the B.Bibl. or equivalent four-year LIS programmes offered at universities in South Africa. The table also includes modules that are offered at certain universities only as they are generally specialist modules. These modules do not include descriptions, as these were unavailable from the sources from which this information was gleaned. Nevertheless, the titles of these modules are quite self-explanatory. *Table 4.4* presents modules with frequency distributions for each of the five points on the five-point scale. The last column of the table (percentage relevance) adds the frequency distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 30 respondents who responded to this item thus indicating the relevance of the module as viewed by these employers.

A similar trend that revealed itself in the rating of modules by employers in the other three LIS programmes (that is, the ND: LIS, the B.Tech.(LIS) and the Post-graduate Diploma programmes) prevailed with the B.Bibl. or equivalent four-year university programmes as well. Modules that are applicable to all types of library and information environments were generally considered to be very relevant by employers and received relatively high percentage relevance (80% and above). Modules of a more specialist nature as well as those of a more general nature and not directly relevant to the LIS services work environment, received relatively lower percentage relevance.

When respondents to this item were asked if any of the modules should be removed from the B.Bibl. or equivalent four-year university programmes, some of the following opinions were expressed by one or two of the 30 respondents to this item:

- Educational Information Services in Developing Countries is not relevant to the programme;
- Advanced Classification and Special Cataloguing are too specialised for a first level LIS programme;

Table 4.4

Employers' ratings of modules in the B.Bibl. or equivalent four-year university programmes

Total number of respondents = 30

(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
Information and Reference Services	The reference interview; search strategies for manual, online and Internet searches.	0	0	0	5	25	100
Information Sources	Contents of different types of printed, CD-ROM and Internet-based reference sources.	0	0	1	10	19	96.7
Management of Libraries and Information Centres	Management theories and their application to libraries and information centres.	0	0	1	15	14	96.7
User Studies	Determining user needs and building information collections and services accordingly.	0	1	0	10	19	96.7
Information and Communication Technology Applications in LIS	Electronic information organisation and retrieval; information retrieval from a selection of systems; database design.	0	0	1	10	19	96.7
Information Resource Management	Fundamentals and management of information systems in organisations.	0	0	2	12	16	93.3
Collection Development	Theory and practice in selection of information sources and other media; managing information collections, including serial collections, in the electronic era.	0	1	2	7	20	90
Research Methods	Methods and techniques in conducting and reporting research on information needs, behaviour and services; research project.	0	1	2	14	13	90
Information Environment	Different types of library and information services and agencies, both modern and traditional; information networks.	0	1	3	20	6	86.7
Bibliographic Description	Theory and practice of descriptive cataloguing.	0	2	2	8	18	86.7
Organisation of Information and Materials	Theory and practice of subject analysis; classification; subject headings; indexing; thesaurus construction.	0	2	2	8	18	86.7
Fieldwork and Practicals	Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; computer laboratory practicals for computer related aspects of instructional offerings.	1	1	2	6	20	86.7
Computerised Cataloguing		0	1	4	9	16	83.3
Bibliographic Control	Purpose, methods and application of bibliographic control.	0	1	5	11	13	80
Origins and Uses of Databases in LIS serv.		1	0	5	14	10	80
Compilation of Bibliographies		1	2	4	17	6	76.7
Special Cataloguing		2	3	5	14	6	66.7
Children and Youth Library Services		2	2	7	11	8	63.3
Educational Information Services in Develop. Countries		1	3	8	12	6	60
Applied Record Studies	Different kinds of records in information agencies: their history, characteristics, possible uses and their influence on information agencies and society in general.	0	1	12	14	3	56.7
Advanced Classification		2	5	6	12	5	56.7
Publishing, Printing and the Book Trade		1	2	10	13	4	56.7

- Children and Youth Services should be removed from the programme but unfortunately no reason was given; and
- Information Environment and Applied Record Studies should drop the historical aspects and de-emphasise the traditional LIS service aspects and rather focus on electronic searching and database construction.

The fact that it was just one or two of the 30 respondents who expressed some of these opinions may be interpreted as the majority of the 30 respondents recognising the fact that while some of the modules might not be relevant to their individual job environments they probably are to other more specialised environments. It should be noted that the above suggestions relate mostly to specialised modules, which as mentioned earlier are offered by certain institutions only. Such modules are ideal for the elective aspects of an academic programme and possibly are offered as such in these institutions.

Respondents had also been asked to make suggestions about aspects, other than those already included in the B.Bibl. or equivalent four-year university programmes, which should be added to the programme. Suggestions made included:

- IT skills such as web design, Internet bibliographic control and hypertext training;
- knowledge management;
- teaching and presentation skills;
- user education;
- labour relations;
- customer care;
- financial management including budgeting;
- copyright legislation;
- public librarianship as a specialisation;
- information literacy;
- conflict management;

- strategic planning;
- marketing the library;
- African librarianship;
- written communication;
- project management;
- role playing;
- physical library planning;
- more practical training; and
- community librarianship.

It is interesting to note that with the exception of copyright legislation and role-playing, each one of the aspects suggested for inclusion in the B.Bibl. or equivalent four-year university programmes have already been suggested in some way for inclusion in the other LIS programmes (that is the ND: LIS, the B.Tech.(LIS) and the Post-graduate Diploma programmes) emphasising that employers do feel strongly about the relevance of these aspects to the LIS services work environment.

4.3.1.12 **General education**

The literature has stressed the importance of general education in higher education. The literature has also argued the centrality of general education in professional LIS education and training. Respondents had been asked if they think general education as provided by a university bachelor's degree is essential in the provision of an efficient service in their current LIS services environments. Eleven point eight (11.8%) of the 76 respondents did not respond to this item. Fifty-six (56) or 73.7% of the 76 respondents responded that general education is essential in the provision of an efficient service in their current LIS services environments. Thirty-nine point two percent (39.2 %) of these 56 respondents argued that general education is essential in the provision of an efficient service in their current LIS services environments because it provides a foundation for effective practice of librarianship. Nineteen point six percent (19.6%) of the 56 respondents argued that general education is essential

because all aspects of library work (cataloguing and classification, collection development, information service) require general education and if individuals did not have general education they will “come short” in carrying out these functions. The rest of the 56 respondents (41.1%) collectively provided the following reasons for why they claimed that general education is essential in the provision of an efficient service in their current LIS environments:

- general education is essential for working in a public library;
- good service is dependent on the general knowledge and the intellect of the individual providing the service;
- general education broadens the knowledge of staff;
- general education is especially essential in the science and technology context as it provides the capacity to give greater assistance to users in this discipline;
- general education is essential especially when working with users who are in the process of acquiring general education;
- a general education background is more valuable than LIS education and training especially in the public library field;
- general education is good grounding for logical and methodical thinking;
- general education gives the individual a general knowledge of many aspects of education, which is useful in enhancing service delivery;
- national policy initiatives stress an integrated approach to service delivery and for this reason general education is important; and
- a lack of general education is a serious impediment in LIS services.

The large percentage (73.7%) of the 76 respondents who believed that general education as provided by a university bachelor’s degree is essential in the provision of an efficient service in their current LIS environments, as well as the strong motivations for why this is so links closely with the fact that the findings in section 4.3.1.2 of this chapter reveal that the majority of the 76 respondents (89.3%) involved in this survey of employers have university degree qualifications. This strong presence of a university background could very well influence the way these employers view the importance of general education in the provision of LIS services.

Fourteen point five percent (14.5%) of the 76 respondents responded that general education is not essential in the provision of an efficient service in their current LIS services environments. Some of the reasons forwarded by these respondents for why they believed this, included:

- specific subject knowledge is more important than general education;
- in-depth knowledge of library tools is more essential than general education;
- general knowledge is beneficial or useful rather than essential;
- a bachelor's degree does not guarantee good general education;
- general education is not sufficiently specific for skills necessary for the delivery of service;
- general education is not necessary in a library dealing with a special subject; and
- LIS education and training is more important than general education as the individual must be proficient in all aspects of information retrieval.

It is interesting to observe from the first comment listed above (and other similar comments in this section) that some employers tend to equate general education with liberal **arts** education only. The literature, particularly Shera (1972), argues that general education is provided by any bachelor degree, including one in the sciences, social sciences, commerce and any other discipline, and not necessarily the arts. Thus specific subject knowledge is part of general education. Perhaps the term 'liberal arts education' by which general education is also referred to, and which in fact has popularised the concept of general education, has led to this misconception.

Respondents had been asked if there were specific professional LIS services job titles in their current LIS services for which a general education is essential. Seventeen point two percent (17.2%) of the 76 respondents did not respond to this item. Forty (40) or 52.6% of the 76 respondents responded that there were specific professional LIS services job titles in their current LIS services for which a general education is essential. Forty-five percent (45%) of these 40 respondents believed that all librarians

working in reference or information provision must have general education. The rest of these 40 respondents (55%) collectively provided the following explanations to substantiate the fact that their LIS services had specific professional job titles for which a general education is essential:

- all professional job titles need a good general education;
- subject librarians in the various disciplines must have general education as they liaise with faculties with regards to collection development and they provide user education;
- general education is an entry-level requirement for professional posts;
- general education is essential for the job title, subject cataloguer;
- the librarian has to have general knowledge of the subjects covered by the museum;
- librarians in an academic library are team players in the intellectual development of students and therefore need to have general education;
- librarians provide information to researchers and therefore need to have general education to be able to meet the information demands of researchers;
- it is very helpful to have general education with music background for music cataloguing;
- librarians in an academic library need to have general education because general education provides valuable subject knowledge and a better understanding of the world of academia and research; and
- regional librarians in the public library sector need general education because they monitor community library services to ensure effective service to a wide range of communities (for example, schools, prisons, farming and rural communities).

Thirty point two percent (30.2%) of the 76 respondents said that their current LIS services did not have specific professional job titles for which a general education is essential. They collectively provided the following explanations to substantiate this response:

- wide general education is essential for virtually all posts whether professional or not;
- subject librarians need to have specific subject knowledge in relevant disciplines and not a basic arts degree;
- subject librarians must develop their own ‘basic knowledge’ informally;
- staff need to be able to deal with all aspects of library work and all subjects;
- functions in a provincial library service are purely of a technical nature and thus there is no need for specific professional job titles for which a general education is required;
- professional posts require a librarianship qualification (degree or post-graduate diploma) and not necessarily general education; and
- while general education is an advantage it is not essential for professional posts and this evidenced by the fact that in the current LIS service three individuals in professional posts have general education and three individuals in professional posts do not have general education.

Respondents had been asked if there were specific professional LIS services job titles in their current LIS services for which a general education is not essential. Twenty-six point four percent (26.4%) of the 76 respondents did not respond to this item. Twenty-six point three (26.3%) of the 76 respondents responded that there were specific professional LIS services job titles in their current LIS services for which a general education is not essential. They collectively provided the following explanations to substantiate this response:

- technical services (for example, periodical and book acquisitions) do not require general education;
- descriptive and copy cataloguing do not require general education;
- subject librarian posts require discipline specific degrees (basic arts degree is useless here);
- circulation functions do not require general education;
- the systems librarian is responsible for the library’s IT system and general education is not essential here; and

- all non-humanities based posts and technical services posts do not require general education.

Forty-seven point three percent (47.3%) of the 76 respondents responded that general education is essential for all professional job titles in their current LIS services.

Common explanations to substantiate this response included:

- general education is a priority in every branch or at all levels of information provision;
- one cannot provide an efficient and professional service without a knowledge base; and
- general education is applicable to all professional LIS services job titles.

Other explanations for this response included:

- general education is a priority when dealing with a wide range of communities as in the public library context; and
- librarians need general education, LIS education and experience.

4.3.1.13 **Differences between technikon and university LIS qualifications**

Respondents had been asked to identify, in view of the outlines of LIS programmes provided as well as employment requirements of their current work environment, differences between the technikon ND: LIS plus B.Tech.(LIS) (four years) and the university bachelor's degree plus Post-graduate Diploma or the four-year university degree (four years). Forty-five (45) or 59.2% of the 76 respondents responded to this item and collectively identified the following differences:

- technikon qualifications are more practical with substantial in-service training while university qualifications are more academic;
- technikon qualifications are more basic and technical in nature compared to university qualifications and are suitable for routine functions;
- technikon qualifications tend to focus on job-related issues while university qualifications tend to focus on general education;

- technikon qualifications do not have liberal arts education while university qualifications do;
- technikon qualifications are more practical and prepare individuals for routine functions while university qualifications have a broader context conducive to critical thinking and preparing individuals for management posts;
- technikon qualifications better equip individuals to handle practical aspects of library work such as descriptive and copy cataloguing compared to university qualifications;
- technikon qualifications have a four-year focus on LIS and related issues while university qualifications (for example the bachelor's degree plus post-graduate diploma) have three years of general education and only one year of LIS and related issues;
- technikon qualifications focus on computer and digital applications while university qualifications are more theoretical;
- while technikon qualifications are lacking in general education, university qualifications are lacking in IT skills training and hands-on experience, for example, in cataloguing and classification;
- technikon qualifications focus on education and training for public library employment while university qualifications are more oriented to management and strategic planning;
- while university graduates have better general education, technikon diplomates are generally better qualified to perform the day-to-day functions in libraries; and
- technikon qualifications place emphasis on experiential learning and practical application while university qualifications emphasise theory and research.

Forty percent (40%) of the 45 respondents identified the first difference listed above as a major difference between technikon and university LIS qualifications.

4.3.1.14 Similarities between technikon and university LIS qualifications

Respondents were asked to identify, in view of the outlines of LIS programmes provided as well as employment requirements of their current work environment, similarities between the technikon ND: LIS plus B.Tech.(LIS) (four years) and the university bachelor's degree plus Post-graduate Diploma or the four-year university degree (four years). Thirty-two (32) or 42.1% of the 76 respondents responded to this item and collectively identified the following similarities:

- the basic themes of the library and information services profession are covered by the curricula of both technikons and universities;
- both technikon and university programmes offer training in librarianship;
- both technikon and university programmes also focus on information science;
- research methodology is included in both technikon and university programmes;
- information retrieval is included in both technikon and university programmes;
- automation of LIS services is included in both technikon and university programmes;
- both technikon and university programmes cover the technical processes in LIS services; and
- both technikon and university qualifications show strong information and communication technologies (ICT) orientations.

Seventy-five percent (75%) of the 32 responses to this item identified either one of the first two similarities listed above as a major similarity between technikon and university LIS qualifications.

The last comment above seems to contradict an earlier statement by some employers that technikon LIS qualifications differ from university LIS qualifications in that the former focuses on computer and digital applications while the latter focuses on theory. This contradiction perhaps may be explained by the fact that employers who participated in the survey have had different experiences with recent LIS diplomates

and graduates. For example, past students who graduated with university LIS qualifications a year or so ago might have had more ICT exposure (as reflected in the programme outlines that were provided to employers - refer to Appendix B) than those who graduated five years ago.

4.3.1.15 **Major strengths of the university based LIS qualifications**

Respondents had been asked to provide their opinions on the major strengths of the university based LIS qualifications. Fifty (50) or 65.8% of the 76 respondents responded to this item. Forty-eight percent (48%) of these 50 respondents indicated that they saw general education as a major strength of the university based LIS qualifications. Other strengths indicated included: University based qualifications

- offer education in theory and practice;
- offer opportunities to specialise in particular fields such as knowledge management, publishing and the book trade;
- allow, through general education, for critical thinking;
- offer training in research skills;
- provide depth in theoretical knowledge that allows for better understanding of concepts;
- provide theory that helps individuals to understand users and reasons for rendering services in a particular manner;
- provide more knowledge and therefore more insight into LIS issues;
- provide high standards of curriculum content;
- provide a combination of general education as well as vocational training;
- provide opportunities to engage in practical work in libraries and IT laboratories;
- are aimed at individuals who are mature in thought and can therefore be trained for leadership and management positions; and
- offer better opportunities for worldwide acceptance into the profession.

4.3.1.16 Major weaknesses of the university based LIS qualifications

Respondents had been asked to provide their opinions on the major weaknesses of the university based LIS qualifications. Fifty-five (55) or 72.3% of the 76 respondents responded to this item. Forty percent (40%) of these 55 respondents indicated that they saw the lack of practical exposure or hands-on experience, as a major weakness of the university based LIS qualifications. Other weaknesses indicated included:

- there was too much theory at the expense of practical application;
- as a result of the lack of practical exposure a graduate cannot walk into a library and start performing;
- qualifications only provide general background to LIS and it is the LIS services that employ these graduates which end up providing specific training;
- qualifications generally lack IT skills training and there does not seem to be enough emphasis on electronic developments;
- there is very little hands-on cataloguing and classification and there is a need for more skills training in cataloguing and classification;
- there are differences in content and standards of education and training between universities;
- as a result of lack of exposure to libraries there is a lack of reference points to which individuals can attach theoretical concepts;
- there is a lack of specialisation in areas such as public librarianship and community (including development) librarianship;
- there is a need for more management training;
- there is a lack of human resource management training;
- instead of being so theoretical qualifications should include systems design, library advocacy and other areas relevant to the work environment;
- qualifications seem to be regarded as 'easy courses' leading to 'easy jobs';
- university based qualifications may lead to graduates being frustrated or bored by the routine tasks that are essential in any library;
- there seems to be an over-emphasis of information science to the detriment of library science; and

- the combination of general education and vocational training leads to inadequate knowledge of library and information science.

Four of the 55 respondents indicated that they saw no weaknesses in the university based LIS qualifications.

4.3.1.17 **Major strengths of the technikon based LIS qualifications**

Respondents had been asked to provide their opinions on the major strengths of the technikon based LIS qualifications. Forty-four (44) or 57.9% of the 76 respondents responded to this item. Forty-three point one percent (43.1%) of these 44 respondents indicated that they saw the practical approach (especially the experiential learning component) and the career-focussed nature of the technikon based LIS qualifications as major strengths. Other strengths indicated included:

- as a result of exposure to hands-on training individuals are familiar with LIS services processes, do not require lengthy periods of training and are generally productive in the job from day one;
- there is much depth in the compulsory experiential learning component of the qualification;
- there is much depth in IT skills training and much focus on current ICT developments;
- the language components are very useful;
- the technikon based qualifications are much more in touch with reality and the work environment generally;
- these qualifications are geared towards first line supervisor and middle management;
- technikon diplomates are better prepared to handle day-to-day situations in a library as they have a better understanding and application of routine tasks;
- the focus on technical aspects of LIS services functions gives the technikon qualifications a competitive advantage;

- the National Diploma is a very good entrance level qualification for library workers who are not necessarily professional, for example, information officers and descriptive cataloguers; and
- technikon LIS qualifications are excellent paraprofessional qualifications but should not include the B.Tech.(LIS) and higher.

4.3.1.18 **Major weaknesses of the technikon based LIS qualifications**

Respondents had been asked to provide their opinions on the major weaknesses of the technikon based LIS qualifications. Thirty-six (36) or 47.4% of the 76 respondents responded to this item. Twenty-seven point eight percent (27.8%) of these 36 respondents indicated that they saw the lack of general education as a major weakness of the technikon based LIS qualifications. Other weaknesses indicated included:

- the practical orientation of the qualifications does not allow for much analytical thinking;
- there is a lack of depth in research methodology;
- there is lack of depth in the theory provided;
- the lack of a strong theoretical background may lead to gaps in professional conduct;
- technikon qualifications lack in 'architecture of knowledge' (creation of knowledge);
- there is a lack of management and leadership skills training;
- there is a lack of classroom interaction and hands-on guidance for distance students;
- there is not enough attention given to conducting information searches;
- there is much uncertainty regarding the status of technikon LIS qualifications in the work environment;
- the practical orientation of the qualifications leads to too narrow a focus and also makes the qualifications simplistic in subject matter, for example, a lack of understanding of the place of libraries in society in general;

- aspirations of matching university curricula may cause technikon qualifications to end up falling between the cracks, lacking both the competitive advantage of technical competence and of a broad-based education;
- lack of sufficient exposure to cataloguing;
- different aspects of public librarianship need to be covered; and
- aspects of project management should be included in the curricula.

Three of the 36 respondents indicated that they saw no weaknesses in the technikon based LIS qualifications.

4.3.1.19 **Professional and paraprofessional job titles in LIS services**

Respondents had been asked if there should be clearly defined professional and paraprofessional job titles in LIS services. Fifteen point eight (15.8%) of the 76 respondents did not respond to this item. Twenty-eight point nine percent (28.9%) of the 76 respondents indicated that there should not be clearly defined professional and paraprofessional job titles in LIS services and collectively provided the following reasons for this response:

- as long as one has an LIS related qualification is all that matters;
- both professional and paraprofessional qualifications are designed for vocational training and therefore there is no need to differentiate between professional and paraprofessional job titles;
- electronic technology blurs any form of differentiation between professional and paraprofessional job titles;
- it is essential to get the required information to the user and this can be done without defined job titles;
- there is no need to differentiate between professional and paraprofessional job titles as experience is just as valuable as qualifications;
- libraries differ greatly and trying to differentiate between professional and paraprofessional job titles in LIS services is a difficult and pointless exercise;

- what is important is that individuals holding LIS related qualifications need to have a grasp of all library functions the only drawback being that those holding the paraprofessional qualifications lack general education;
- LIS is too small in this country to be divided into compartments of professional and paraprofessional job titles and also the absence of differentiation here is more in keeping with current thinking at national policy level about facilitating mobility in education and training;
- current national policy initiatives (SAQA and the NQF) emphasise career pathing and mobility in education and training and differentiating between professional and paraprofessional job titles limits career progression;
- the technikon National Diploma qualification should be considered a professional entry-level qualification as the title paraprofessional is damaging to the profession;
- differentiating between professional and paraprofessional job titles is just unnecessary red-tape;
- the number of years of study should determine professionalism rather than the type of qualification;
- there is no need to differentiate between professional and paraprofessional job titles because professionalism is about attitude and not job titles based on qualifications;
- in the present LIS services environment staff are generally multi-skilled and if categorised only as paraprofessionals they would be less useful to the organisation;
- there should be no distinction between professional and paraprofessional job titles as technikon training is just as good as university training; and
- users see all library staff as librarians and their major concern is that someone can answer their queries and not selecting between professional and paraprofessional staff when requiring assistance.

A larger figure of 55.3% of the 76 respondents indicated that there should be clearly defined professional and paraprofessional job titles in LIS services. When these

respondents had been asked what types of postsⁱⁱ should constitute professional job titles respondents indicated that the post of librarian (including subject librarian, reference librarian and senior categories of librarians such as senior librarian, branch librarian and head librarian or director) should constitute a professional job title. Other posts indicated as constituting professional job titles included:

- information officer;
- cataloguer;
- acquisitions librarian;
- circulation librarian;
- systems librarian;
- assistant librarian; and
- junior librarian.

When these respondents had been asked to indicate what types of posts should constitute paraprofessional job titles, the following responses had been received:

- library assistant;
- senior library assistant (and other titles used to designate senior categories of library assistants such as chief library assistant or principal library assistant);
- first line (level) supervisor;
- library technician;
- assistant librarian*;
- junior librarian*;
- circulation librarian*;
- acquisitions librarian*;
- cataloguer*;
- information officer*
- library administrator; and
- clerk (or administrative assistant).

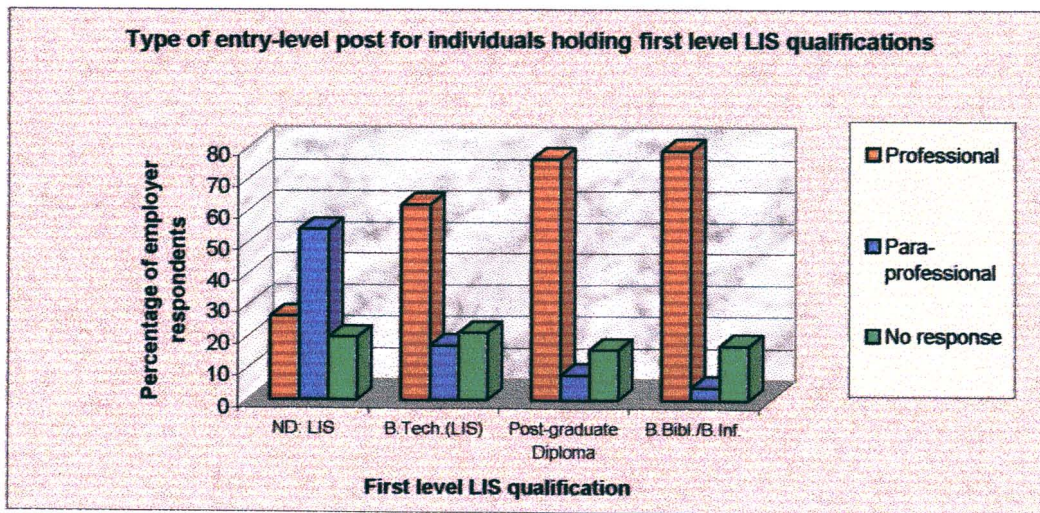
It is interesting to observe that those job titles marked with an asterisk (*) are also indicated as job titles that could constitute professional job titles suggesting that these

could be professional or paraprofessional job titles in LIS services. Discussion on this issue is taken up in Chapter 5.

4.3.1.20 **Type of entry-level post (professional or paraprofessional)**

Respondents had been asked to indicate in what type of entry-level post would they as LIS services employers in their current LIS services contexts place individuals holding any of the four LIS qualifications that are the focus of this study, that is, the ND: LIS, the B.Tech.(LIS), the Post-graduate Diploma and the B.Bibl. or equivalent four-year university degree. *Figure 10* represents the responses to this item among the 76 LIS services employers surveyed. These findings reveal that the majority of LIS services employers surveyed would place individuals holding the B.Tech.(LIS), the Post-graduate Diploma and the B.Bibl. or equivalent four-year university degree in professional entry-level posts and individuals holding the ND: LIS in paraprofessional entry-level posts.

Figure 10



4.3.1.21 **Three-year bachelors' degrees**

A recent trend at some South African universities has been to offer a three-year bachelor's degree with a major or specialising in, for example, Information Science. This major is broken up into a number of Information Science modules that are spread

over the three years. Refer to the appendix of the Questionnaire for Employers (Appendix B) for examples. The balance of the modules are usually certain compulsory academic foundation modules such as computer literacy, language proficiency and academic skills as well as modules selected from general social and human science modules in terms of specific degree rules. According to these institutions these bachelor's degree programmes are aimed at positions in the wider information field. At some of these institutions the major subject or specialisation could be Library Science or Archival Science or Multimedia or Publishing or Information and Knowledge Management.

This is a relatively new development in LIS education and training in South Africa that attempts to capture the emerging information markets and in some cases still target the traditional LIS services markets, a situation that LIS schools or departments the world over are currently being faced with as revealed by the literature. The researcher needed to find out how LIS services employers were receiving these new three-year degree qualifications after many years of employing four-year LIS graduates as professionals in LIS services. Thus respondents had been asked if they think that these programmes, particularly those with Information Science or Library Science majors or specialisation, incorporate the fundamental elements leading to a first level professional LIS qualification. Fifty-seven point nine percent (57.9%) of the 76 respondents believed that these new three-year degree programmes **do incorporate** the fundamental elements leading to a first level professional LIS qualification. Fifteen point eight percent (15.8%) of the 76 respondents believed that these programmes **do not incorporate** the fundamental elements leading to a first level professional LIS qualification and collectively provided the following explanations for this response:

- one wonders about the depth of coverage in the modules if the programme is done in three years (it sounds like a national diploma being offered at a university);
- these programmes are not as comprehensive on librarianship as the B.Bibl. or B. Tech.(LIS);

- majors and ancillaries are too restrictive and there might be a problem placing graduates in a general library;
- graduates would not be fully prepared to work alone and would probably need a mentor;
- only selective training is received while the core of LIS is neglected; and
- these programmes are too specialised for a provincial library service environment.

The majority of the 76 LIS employers surveyed (57.9%) seem to have no problem with accepting these new three-year degree qualifications as first level professional LIS qualifications. However, the relatively low majority figure (57.8%) and the fact that approximately 20 respondents (26.3%) did not commit themselves to a response to this item are possibly indications of some uncertainty among some LIS services employers regarding these new three-year degree qualifications.

4.3.1.22 **IFLA-SET guidelines**

The International Federation of Library Associations and Institutions - Section on Education and Training (IFLA-SET) has recently developed and adopted the *Guidelines for professional library/information educational programs* (2000). IFLA-SET has suggested in these guidelines that the following core elements should be included in an academic programme leading to a first level professional library and/or information science (LIS) qualification:

- ❖ The Information Environment, Information Policy and Ethics, the History of the Field;
- ❖ Information Generation, Communication and Use;
- ❖ Assessing Information Needs and Designing Responsive Services;
- ❖ The Information Transfer Process;
- ❖ Organisation, Retrieval, Preservation and Conservation of Information;
- ❖ Research, Analysis and Interpretation of Information;

- ❖ Applications of Information and Communication Technologies to Library and Information Products and Services;
- ❖ Information Resource Management and Knowledge Management;
- ❖ Management of Information Agencies; and
- ❖ Quantitative and Qualitative Evaluation of Outcomes of Information and Library Use.

(International Federation of Library Associations and Institutions 2000: 2)

Respondents had been asked if they think that South African LIS programmes leading to first level professional qualifications should include all these elements. Fifteen point eight (15.8%) of the 76 respondents did not respond to this item. Seventy-five percent (75%) of the 76 respondents responded that South African LIS programmes leading to first level professional qualifications **should include** all these elements. Only nine point two percent (9.2%) of the 76 respondents responded that they **should not include** all of these elements and collectively indicated that the following elements are not particularly necessary in the South African context:

- The Information Environment, Information Policy and Ethics, the History of the Field;
- Quantitative and Qualitative Evaluation of Outcomes of Information and Library Use;
- The Information Transfer Process;
- Applications of Information and Communication Technologies to Library and Information Products and Services;
- Management of Information Agencies (there is too much management for a first level LIS qualification); and
- Preservation and Conservation of Information.

There was also a comment that this 'core' consisted of too much theory for first level LIS qualifications. Unfortunately reasons were not forwarded for why these elements were regarded as not being particularly necessary in the South African context. In fact in some instances these responses contradict earlier statements by employers in

support of more ICT and management in first level professional LIS qualifications. Perhaps this was a flaw in the design of this item in the questionnaire, as reasons were not specifically asked for. Nevertheless, it is important to note that a large majority (75%) of the 76 respondents believed that South African LIS programmes leading to first level professional qualifications should include all the elements suggested by the IFLA-SET guidelines.

In addition to the core elements for first level professional LIS programmes, IFLA-SET has also emphasised the need for adequate resources in the delivery of these programmes. It has suggested the following instructional resources and facilities:

- ❖ **Library resources:** These should be of sufficient depth, quantity and accessibility to support the programme offered. These should include monographs and serial publications, in print and electronic formats; a range of bibliographic tools to support teaching and research; and other appropriate media. A procedure for access to additional resources from other locations should be in place;
- ❖ **Information technology resources:** Computer hardware and software and multimedia resources should be available for students and teaching staff and be sufficient for the level of use required;
- ❖ **Internet resources:** Adequate connections to the Internet should allow ready access for students and teaching staff; and
- ❖ **Physical facilities:** The programme's physical facilities should provide adequate support for students and teaching staff to accomplish their objectives.

(International Federation of Library Associations and Institutions 2000: 4)

Respondents had been asked to provide their views on what would be the general resources required to deliver an appropriate programme leading to a first level professional LIS programme. Sixty point five percent (60.5%) of the 76 respondents responded that all the instructional resources suggested by IFLA-SET are essential to deliver such a programme. Nineteen point seven percent (19.7%) of the 76 respondents did not respond to the item. The rest of the respondents (19.7%) indicated

that in addition to the instructional resources suggested by IFLA-SET, there were other resources that were required. Suggestions made by these respondents included:

- instruction on the use of Internet based resources;
- access to a computerised library system;
- allocation of knowledgeable and experienced mentors (practising librarians) to students to assist during experiential learning;
- service delivery resources;
- networking with colleagues in the 'industry';
- access to a large library for experiential training;
- opportunities for hands-on computer experience;
- opportunities for practical experience; and
- at least six months in-service learning involving community work.

IFLA-SET has also emphasised the need for appropriately qualified and experienced academic staff in the delivery of first level professional LIS programmes. In this regard it has suggested the following:

- ❖ Research-based competence in the designated teaching areas;
- ❖ Technological proficiency;
- ❖ Effectiveness in teaching;
- ❖ A sustained record of scholarship; and
- ❖ Active participation in appropriate professional associations.

(International Federation of Library Associations and Institutions 2000: 3)

Respondents had been asked to provide their views on what would be academic staff requirements (in terms of qualification and experience) for the delivery of an appropriate programme leading to a first level professional LIS qualification. Seventeen point one percent (17.1%) of the 76 respondents did not respond to the item. Twenty-seven point six percent (27.6%) of the 76 respondents indicated that all of IFLA-SET requirements regarding academic staff are essential for the delivery of an appropriate programme leading to a first level professional LIS qualification. Forty point eight percent (40.8%) of the respondents indicated that in addition to the IFLA-

SET requirements for academic staff other requirements were also essential. Individual respondents made different suggestions. Some of these included:

- practical LIS services work experience;
- previous and ongoing practical LIS services work experience;
- a minimum of a master's degree (some respondents suggested a minimum of an honours degree while others suggested a four-year degree in LIS as a minimum);
- in-depth knowledge of LIS locally and internationally;
- a teaching qualification;
- a university LIS qualification and not a technikon LIS qualification (that is, not a B.Tech., M.Tech. or D. Tech.);
- practical experience in different types of libraries;
- academic staff must be in touch with the practical aspects of the profession, be involved in needs based research projects and participate in community projects;
- academic staff must publish, present at conferences and have a high profile within the business sector; and
- a minimum of five years teaching within the LIS services environment.

The rest of the 76 respondents (14.5%) believed that not all the IFLA-SET requirements for academic staff are essential. Some of those requirements that respondents frequently suggested as not being essential included:

- active participation in appropriate professional associations;
- a sustained record of scholarship; and
- technological proficiency.

It seems from these responses that research-based competence in the designated teaching areas, effectiveness in teaching, practical LIS services work experience and a minimum academic LIS qualification (which employers seem to be divided on) are considered by employers surveyed as the basic academic staff requirements for the

delivery of an appropriate programme leading to a first level professional LIS qualification.

4.3.2

Survey of past students (graduates and diplomates)

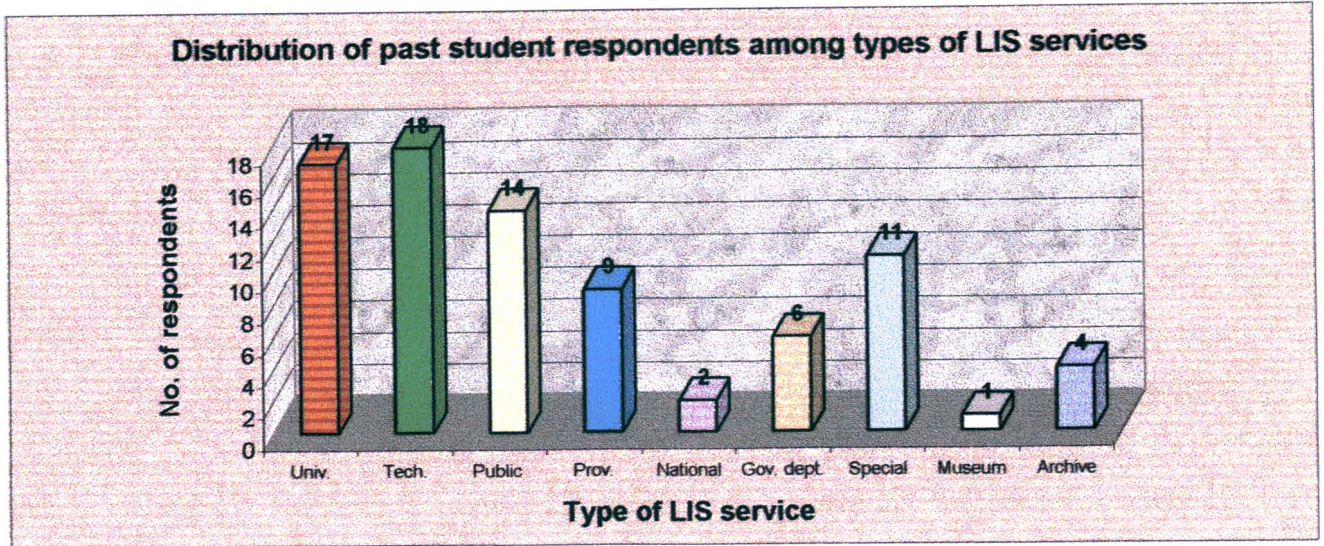
Questionnaires (Appendix A) had been distributed to past students from universities and technikons who had graduated with first level LIS qualifications in the last five years (1998-2002) and who are currently employed in LIS services, in order to gather data on their views regarding these qualifications and their relevance to the LIS services work environment. Out of a total of 554 questionnaires that were sent to major LIS services for distribution to past students 83 completed questionnaires, or 15% of the total number of questionnaires sent out, were returned to the researcher. Only 82 of the completed questionnaires were used in the study because one of the completed questionnaires was spoilt as already discussed in the previous chapter.

4.3.2.1

Distribution of respondents among types of LIS services

Figure 11 represents the distribution of respondents among the various types of LIS services. Respondents were distributed among university libraries, technikon libraries, public libraries, provincial library services, the National Library, government department libraries or information services, special libraries or information services, a museum library and archives. Most respondents (35 or 42.7% of the 82 respondents) came from academic libraries, that is, university and technikon libraries. Again this is not surprising because, as discussed in the previous chapter, academic libraries are one of the larger providers of employment in the LIS services sector. A total of 23 or 28% of the 82 respondents were from the public library sector, that is, public libraries and provincial library services, which according to the literature are also large providers of employment in the LIS services sector. Of the eleven respondents from special libraries or information services, five were from research libraries or information services, five from business libraries or information services and one from a community library.

Figure 11



4.3.2.2 Current posts held by respondents

Table 4.5a shows the various posts that are currently held by respondents together with the number of respondents that hold particular posts. One of the 82 respondents did not respond to this item.

It is immediately noticeable that the posts of librarian and library assistant feature strongly among the respondents. This is in keeping with findings from the survey of employers (Figure 8) that the job titles librarian (including various types and levels of librarian) and library assistant (including senior library assistant) are common among staff members holding the established professional LIS qualifications and the paraprofessional ND: LIS qualification, respectively. Inconsistencies among LIS services in the use of terminology in job titles at the same level, which according to the literature seems to be part of a general trend internationally, are reflected here.

Respondents had been asked to indicate whether in their library and/or information services the posts they currently hold are designated as professional, paraprofessional, clerical or as any other type of post. Cross-tabulation of responses to this item and responses to the item that asked respondents to indicate the posts they current hold in

their library and/or information services, allowed the researcher to generate *Table 4.5b*.

Table 4.5a

Current posts held by past student respondents

(Total number of respondents = 82)

Post	No. of respondents	Percentage (%)
Librarian	31	37.8
Library Assistant	15	18.3
Senior or Principal Librarian	6	7.3
Senior Library Assistant	6	7.3
Assistant Librarian	4	4.9
Admin. Clerk or Clerical Assistant	4	4.9
Subject Librarian	3	3.7
Branch Librarian	2	2.4
Archivist	2	2.4
Information Specialist	2	2.4
Regional Librarian	1	1.2
Senior Archivist	1	1.2
Systems Librarian	1	1.2
Technical Officer	1	1.2
Computer Technician	1	1.2
Journal Administrator	1	1.2
No response to item	1	1.2
Total	82	100%

Table 4.5b

Types of posts held by past student respondents

(Total number of respondents = 82)

Post	No response to item	Professional	Para-professional	Clerical	Technician	Total
Librarian		28 (34.1%)	2 (2.4%)	1 (1.2%)		31 (37.7%)
Subject Librarian		3 (3.7%)				3 (3.7%)
Senior or Principal Librarian		6 (7.3%)				6 (7.3%)
Systems Librarian		1 (1.2%)				1 (1.2%)
Branch Librarian		1 (1.2%)	1 (1.2%)			2 (2.4%)
Regional Librarian		1 (1.2%)				1 (1.2%)
Information Specialist		2 (2.4%)				2 (2.4%)
Archivist		2 (2.4%)				2 (2.4%)
Senior Archivist		1 (1.2%)				1 (1.2%)
Assistant Librarian		2 (2.4%)	2 (2.4%)			4 (4.8%)
Library Assistant	5 (6.1%)	5 (6.1%)	2 (2.4%)	3 (3.7%)		15 (18.3%)
Senior Library Assistant			4 (4.9%)	2 (2.4%)		6 (7.3%)
Journal Administrator			1 (1.2%)			1 (1.2%)
Admin. Clerk or Clerical Assistant		1 (1.2%)		4 (4.9%)		5 (6.1)
Technical Officer					1 (1.2%)	1 (1.2%)
Computer Technician					1 (1.2%)	1 (1.2%)
Total						82 (100%)

It is evident, as expected, that different LIS services seem to be doing different things with regard to designating posts as professional, paraprofessional, clerical or any other description. However, some trends are evident from *Table 4.5b*. The posts of librarian (including various types and levels of librarian) are largely (with odd exceptions) designated as professional posts. So are the posts of archivist (including senior archivist) and information specialist. *Table 4.5b* reflects that library assistant and senior library assistant posts (again with odd exceptions) are generally designated as paraprofessional or clerical posts with a leaning towards the former. Clerical and administrative posts are generally designated as clerical posts, again with some odd exceptions. The only other category of description of posts (that is, other than professional, paraprofessional and clerical) that respondents provided, was that of ‘technician’ and it seems logical that the posts, technical officer and computer technician, should be designated as technician posts.

4.3.2.3 **Library and/or information science qualifications of respondents**

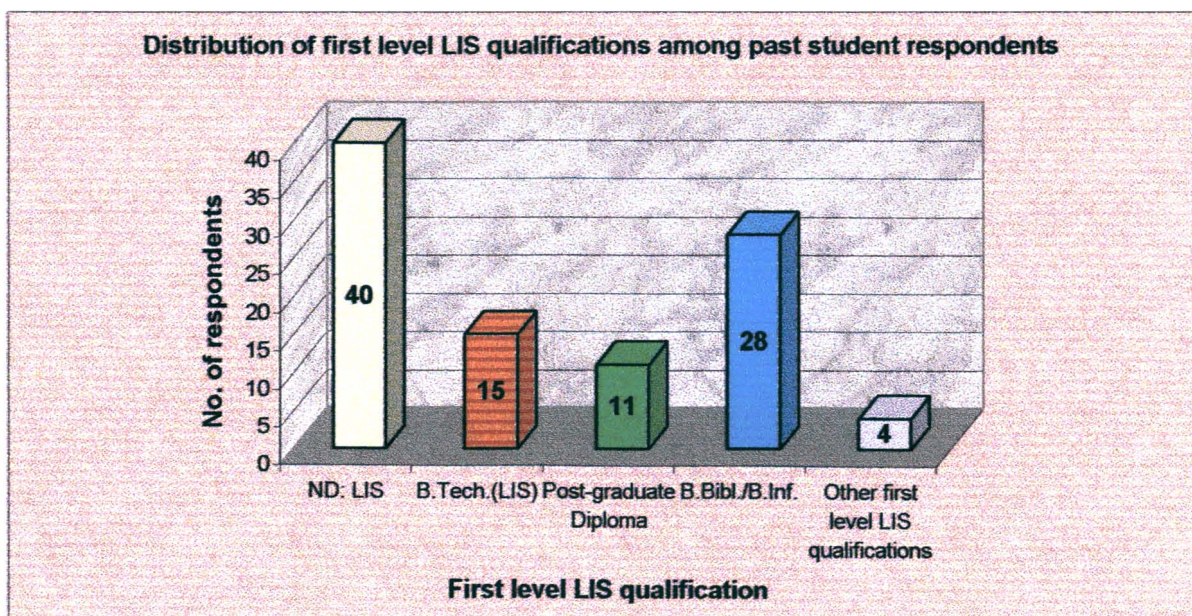
Respondents had been asked to indicate which one of the following first level LIS qualifications they hold: ND: LIS, B.Tech.(LIS), Post-graduate Diploma, B.Bibl. or equivalent four-year university degree, or any other first level LIS qualification. It is quite possible for respondents to have more than one of these qualifications and thus respondents had been asked to indicate more than one option where applicable which means that the numbers and percentages that follow would not necessarily add up to 82 (that is, the total number of respondents) or 100%. *Figure 12* captures the distribution of first level LIS qualifications among the 82 respondents.

Other first level LIS qualifications indicated by respondents included the Lower Diploma in Library and Information Science (this qualification has been phased out by universities in South Africa), the Diploma in Information Science (this qualification is offered by just one correspondence or distance education university in South Africa) and the B.A.(Information Science), one of the new three-year degrees with a major in Information Science being offered by some universities in South

Africa. This study focuses only on first level LIS qualifications commonly offered by LIS education and training departments throughout the country.

It seems that the technikon ND: LIS features most strongly among the 82 respondents followed by the B.Bibl. or equivalent four-year university degree. However, it should be noted that those respondents who hold a B.Tech.(LIS) would also have indicated that they hold a ND: LIS as the former is done after the completion of the latter qualification and this is what causes the figures for the ND: LIS to seem somewhat inflated. The B.Bibl. or equivalent four-year university degree once again reveals itself (as happened in the survey of employers) as being the more common professional qualification among recent graduates in LIS services employment.

Figure 12



Respondents had been asked to indicate in what years they had attained these qualifications largely to ensure that only those who had completed at least one first level LIS qualification in the last five years would be included in the survey. The reason for only including participants in the survey who had completed a first level LIS qualification in the last five years has been explained in Chapter 3.

4.3.2.4

Institutions from which respondents obtained LIS qualifications

Table 4.6 presents the names of institutions from which first level LIS qualifications had been obtained together with the number of respondents (indicated in parenthesis) who had obtained these qualifications from particular institutions. The figures in parenthesis do not add up to 82 (the total number of participants in the survey of past students) as four of the 82 respondents did not respond to this item and also some of the respondents have indicated that they hold two qualifications (for example, the ND: LIS and the B.Tech.(LIS)). Furthermore, the figures in parenthesis for some categories of qualification in *Table 4.6* (especially the ND: LIS and the B.Tech.(LIS)) do not exactly match up with figures for the number of respondents that hold the various qualifications presented in section 4.3.2.3 as some of the respondents, especially those with the double qualifications, were not entirely careful in providing details for both the qualifications. Nevertheless, *Table 4.6* still provides some indications of trends in how institutions feature in terms of institutions from which participants in the survey obtained their LIS qualifications.

*Table 4.6***Institutions from which past student respondents obtained LIS qualifications**

Qualification	Institution	Institution	Institution	Institution
ND: LIS	M.L. Sultan Tech. (now DIT) (16)	Technikon S.A. (7)	Port Elizabeth Tech. (2)	Tech. Pretoria (10)
B.Tech.(LIS)	M.L. Sultan Tech. (5)	Technikon S.A. (4)	Port Elizabeth Tech. (1)	
Post-grad. Dip.	Rand Afrikaans Univ. (1)	Univ. of Natal (5)	Univ. of Cape Town (1)	Univ. of Zululand (1)
B.Bibl.or equiv.	Rand Afrikaans Univ. (3)	Univ. of South Africa (6)	Univ. of the Western Cape (6)	Univ. of Pretoria (3)
B.Bibl.or equiv.	Univ. of Stellenbosch (1)	Univ. of the North (8)	Univ. of Zululand (1)	
Lower Dip.: Lib. & Inf. Sc.	Univ. of the Western Cape (1)			
Dip.: Inf. Sc.	Univ. of South Africa (2)			
B.A. (Inf. Sc.)	Univ. of Pretoria (1)			

In the case of the ND: LIS, the highest number of respondents seem to have obtained this qualification from M.L. Sultan Technikon (now DIT or the Durban Institute of Technology), followed by Technikon Pretoria (which, as mentioned in Chapter 3, is currently phasing out its LIS programmes) and Technikon South Africa. In the case of the B.Tech.(LIS), it makes sense that M.L. Sultan Technikon and Technikon South Africa should dominate again as this qualification follows on after the ND: LIS. Technikon Pretoria, which featured strongly with the ND: LIS, does not feature at all with the B.Tech.(LIS) for the obvious reason that it had begun phasing out the programme. In the case of the Post-graduate Diploma, the University of Natalⁱⁱⁱ seems to feature strongly. In the case of the B.Bibl. or equivalent four-year university degree, many of the respondents seem to have obtained this qualification from the University of South Africa, the University of the Western Cape and the University of the North. The Lower Diploma in Library and Information Science, as already mentioned several times in this chapter, has been phased out by universities in South Africa, the Diploma in Information Science is being offered by just one university in the country and the B.A.(Information Science), as also mentioned in this chapter, is part of a new trend among some universities of offering a three-year bachelor's degree with Information Science or Library Science or some other information related major. For these reasons these qualifications do not feature very strongly in *Table 4.6*.

4.3.2.5 **Key tasks in current jobs of respondents**

Respondents had been asked to list the key tasks involved in their current jobs or to attach a copy of their current job contents. The following list of key tasks emerged from these responses:

- administrative tasks;
- answering directional queries;
- book acquisitions;
- cataloguing and/or classifying;
- collection development;
- current awareness;

- deconstruction (archival task);
- human resource development;
- indexing;
- information provision;
- inter-lending (including facilitating national and international inter-library loans);
- issuing and receiving of material;
- IT trouble shooting;
- kardexing;
- library promotion;
- maintenance of computer equipment;
- management of electronic equipment;
- managing staff;
- managing the physical collection of material (including collection maintenance);
- outreach;
- processing material;
- providing photocopying assistance;
- publication of material;
- research;
- serials acquisitions;
- shelving;
- stocktaking;
- storytelling;
- strategic planning;
- systems management;
- training on use of computers;
- user education; and
- Web development;

It should be noted that these tasks are scattered across professional and support positions in LIS services. It should also be noted that the above list is the result of the reduction of common job tasks presented by the various respondents under single generic phrases. This also helped to eliminate inconsistencies in terminology for similar job tasks used in different LIS services.

Cross-tabulation of responses to this item with responses to the item that asked respondents to indicate what first level LIS qualifications they currently hold revealed some interesting trends. It should be noted that only the relatively higher percentages of respondents involved in certain job tasks are presented in order to reveal these trends.

In the case of respondents that hold the ND: LIS, 47.5% of the 40 respondents who said that they hold this qualification, indicated that **information provision** was one of their job tasks, 30% indicated **administrative tasks**, 27.5% indicated **issuing and receiving of material** and 20% indicated **cataloguing and/or classifying**.

In the case of respondents that hold the B.Tech.(LIS), 53.3% of the 15 respondents who said that they hold this qualification, indicated that **information provision** was one of their job tasks, 40% indicated **administrative tasks**, 26.7% indicated **collection development** and 26.7% indicated **library promotion**.

In the case of respondents that hold the Post-graduate Diploma, 45.5% of the 11 respondents who said that they hold this qualification, indicated that **managing staff** was one of their job tasks, 45.5% indicated **cataloguing and/or classifying** and 36.4% indicated **information provision**.

In the case of respondents that hold the B.Bibl. or equivalent four-year university degree, 50% of the 28 respondents who said that they hold this qualification, indicated that **information provision** was one of their job tasks, 39.3% indicated **collection development** and 32.1% indicated **cataloguing and/or classifying**.

The general trend seems to be that certain job tasks are more common among respondents holding certain first level LIS qualifications. Discussion on this finding will be done in Chapter 5.

4.3.2.6 **Past students' views on the National Diploma: Library and Information Studies programme**

Past students had been asked to rate the modules that make up the National Diploma: Library and Information Studies (ND: LIS) programme. This is a three-year national LIS programme offered by technikons in South Africa. Past students had been asked to rate each one of the modules (including those which they may not have done at the time when they had been registered for the programme) that had been listed (together with brief descriptions) in the questionnaire (Appendix A) in terms of relevance to their current jobs using a rating scale of 1 to 5 (1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant). It was considered important to provide brief descriptions of the modules so that respondents would have an idea of what is taught in a particular module in the programme. Respondents had also been given the opportunity to indicate and rate any module that they might have done at the time that they had been registered for the programme but which is presently not included in the programme. Respondents, however, seemed to have had no need to use this option. This item had to be responded to only by those respondents who had attained the ND: LIS. Thirty-four or 41.5% of the 82 respondents responded to this item.

Table 4.7 presents the modules (together with brief descriptions) in the ND: LIS programme with frequency distributions for each of the five points on the five-point scale. The last column of the table (percentage relevance) adds the frequency distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 34 respondents who responded to this item thus indicating the relevance of the module as viewed by these past students.

While *Table 4.7* reveals many issues for discussion which will be covered in Chapter 5, at this point the researcher would simply like to point out that as with employers surveyed here too past students gave relatively higher percentage relevance to modules aimed at the LIS services environment in general compared to modules aimed at specialised information environments and those that are general and somewhat peripheral to the LIS services work environment.

When respondents had been asked if any of the modules that currently make up the ND: LIS programme should be removed, suggestions included:

- 20.6% of the 34 respondents commented that Human Studies is not relevant to the ND: LIS programme;
- 17.6% suggested that Afrikaans should be made an optional module;
- 8.8% suggested that African languages should be made optional modules;
- 2.9% commented that Literature Studies is not relevant to the ND: LIS programme; and
- 2.9% remarked that User Studies is not very useful in the ND: LIS programme.

Respondents in the survey of employers made most of these suggestions as well.

Table 4.7

Past students' ratings of modules in the ND: LIS programme

(Total number of respondents = 34)

(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
Library and Information Technology I	Office equipment; formats of recorded information; ergonomics and library/office safety; computer laboratory practicals.	0	0	1	13	20	97.1
English	Communication theory; correspondence; oral communication; intercultural communication.	1	0	0	13	20	97.1
Library and Information Practice I	Various information environments and their aims and functions; the LIS profession; legislation affecting information provision.	0	1	1	16	16	94.1
Library and Information Technology II	General purpose application software; library specific databases; database management systems; search technology and software; networks; computer laboratory practicals.	1	0	1	9	23	94.1
Library and Information Retrieval II	Subject analysis; descriptive cataloguing; classification; subject headings; introduction to indexing, abstracting and thesaurus construction.	1	2	0	6	25	91.2
Library Promotion	Marketing the library; press relations and public relations programmes; library publications; material and techniques in library promotion.	0	0	3	9	22	91.2
Information Retrieval I	Bibliographic control tools and processes; reference sources; OPAC searches.	1	1	2	6	24	88.2
Information Retrieval III	Print and electronic reference sources including the Internet; the reference process; database construction; computer laboratory practicals.	2	0	2	9	21	88.2
End-user Computing	Computer types, hardware and software; keyboard skills; operating systems and environments; software packages; computer laboratory practicals.	1	0	4	6	23	85.3
Library and Information Practice II	The book trade and publishing; collection development; acquisitions procedures; serials control; library administration.	1	1	3	10	19	85.3
Psychology in Organisations	The value and application of psychology in libraries and information centres.	0	1	4	13	16	85.3
Information Practice III	Introduction to readership; introduction to management techniques and financial control; introduction to research methodology	1	1	3	11	18	85.3
Library and Information Tech. III	The digital library: evolution; strategic planning; funding and costs; collection and preservation; retrieval.	4	0	4	6	20	76.5
Experiential learning	Fieldwork in a recognised library or information service; distributed over the three years as individual academic programmes require.	4	0	4	3	23	76.5
User Studies III	The community survey; the community profile; importance of user studies in collection development and material selection.	5	2	5	11	11	64.7
User Studies I	Importance of User Studies to the LIS services worker; the reading process; reading motives, needs and interests; reader typology.	6	2	6	11	9	58.8
Human Studies	History and appreciation of art and music; orientation to science and technology; societal themes.	1	7	6	12	8	58.8
User Studies II	The adult reader; the neo-literate reader; the child as a reader; the teenage reader; library services for these various categories of readers; user education.	5	3	8	10	8	52.9
IsiZulu or IsiXhosa or other African lang.	Intercultural communication; oral communication; writing skills.	4	7	7	10	6	47.1
Afrikaans	Correspondence; engaging with Afrikaans texts; basic discussion on topical issues.	4	9	6	9	6	44.1
Literature Studies	History and appreciation of: children's literature; African literature and African literature in English; English literature.	5	6	8	9	6	44.1

Past students had been asked to make suggestions about aspects, other than those already included in the ND: LIS programme, which should be added to the programme. Suggestions made included:

- online cataloguing;
- a better balance between theory and practice;
- commerce components such as budgeting are necessary in the work place;
- coverage in Information Technology of aspects such as web design, e-books and e-journals;
- information management;
- knowledge management;
- labour relations;
- legislation affecting librarianship;
- marketing the library;
- photography;
- public relations in order to handle communication with the public;
- training for self-employment; and
- typing or keyboard skills.

As mentioned before some of these aspects are probably embedded in the modules currently being offered as part of the ND: LIS programme. However, respondents probably believe that these aspects should be given more emphasis in the programme. It is interesting to note that employers surveyed also suggested, for inclusion in the ND: LIS programme, aspects relating to public relations, budgeting and theory of library and information work. It is also interesting to note that there has been a call by recent diplomates for the inclusion of information management and knowledge management at the diploma level. These aspects are generally incorporated at higher levels of study. These calls may be interpreted as a sign of the growing importance of these areas in the work place generally and in the LIS services work environment in particular.

When respondents had been asked if they think that the posts they currently hold are commensurate with their ND: LIS qualifications, seventeen (17) or 50% of the 34 respondents indicated that this was so and common comments regarding this included:

- the ND: LIS curriculum is relevant to my current job; and
- the ND: LIS qualification has provided sound knowledge and skills (background training) for me to perform my job.

Seventeen (17) or 50% of the 34 respondents stated that the posts they currently hold are not commensurate with their ND: LIS qualifications and comments regarding this included:

- knowledge and skills from the ND: LIS qualification are not utilised in my current post (at least 65% of the 17 respondents made comments to this effect);
- the ND: LIS is not recognised in my job environment and thus does not allow for any career progression;
- the ND: LIS qualification deserves professional status;
- marketing is a major part of my job but is not covered in the ND: LIS programme; and
- my current post is very technical and includes aspects that are not part of the ND: LIS curriculum.

4.3.2.7 **Past students' views on the Bachelor of Technology: Library and Information Studies programme**

Past students had been asked to rate the modules that make up the Bachelor of Technology: Library and Information Studies (B.Tech.(LIS)) programme. This is a national LIS programme offered by technikons in South Africa at the fourth level of study after completion of the three-year ND: LIS. Past students had been asked to rate each one of the modules (including those which they may not have done at the time when they had been registered for the programme) that had been listed (together with brief descriptions) in the questionnaire (Appendix A) in terms of relevance to their

current jobs using a rating scale of 1 to 5. Respondents had also been given the opportunity to indicate and rate any module that they might have done at the time that they had been registered for the programme but which is presently not included in the programme. Respondents, however, seemed to have had no need to use this option. This item had to be responded to only by those respondents who had attained the B.Tech.(LIS). Fourteen or 17.1% of the 82 respondents responded to this item.

Table 4.8 presents the modules (together with brief descriptions) in the B.Tech.(LIS) programme with frequency distributions for each of the five points on the five-point scale. The last column of the table (percentage relevance) adds the frequency distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 14 respondents who responded to this item thus indicating the relevance of the module as viewed by these past students.

Here again modules that apply to LIS services environments in general seemed to receive relatively higher percentage relevance compared to those aimed at specialised library or information environments as well as those of a more academic nature and lack practical relevance to the LIS services environment.

When respondents to this item had been asked if any of the modules should be removed from the B. Tech.(LIS) programme, three of the 14 respondents each made one of the following suggestions:

- Book Conservation should be dropped in favour of a management module;
- Readership for Semi-literates and Children's Library Practice should be optional modules; and
- Information User Studies should be dropped because it is already done at the ND: LIS level.

The popularity of management modules among recent diplomates and graduates comes through yet again. It is also evident that modules not relevant to LIS services environments in general but to more specialised environments, are ideal for the

elective aspects of an academic programme as these are some of the modules that respondents have called for to be optional.

Table 4.8

Past students' ratings of modules in the B. Tech.(LIS) programme

(Total number of respondents = 14)

(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
Research Methodology	Research planning and design; data collection; literature review; research techniques; writing research reports; research project.	0	0	0	3	11	100
Information Retrieval IV	Theory and application of indexing, abstracting and thesaurus construction; web page design; online information retrieval.	0	0	1	2	11	92.9
Library and Information Practice IV	Organisational theory, politics and culture; personnel management; strategic management.	0	0	2	3	9	85.7
Information Management	Role and importance of the information services department in an organisation; information resource management; fundamentals of information systems.	0	0	2	3	9	85.7
Readership for Semi-literates	Literature and literary resources for adult learners; organisation and administration of adult literacy; policy issues affecting adult literacy.	1	2	0	6	5	78.6
Library and Information Technology IV	Management of a digital library; advanced IT developments.	3	0	2	2	7	64.3
Information User Studies	The information user: attitudes to information, information needs, information seeking behaviour.	3	0	2	2	7	64.3
Book Conservation	The role of preservation in library management; the nature of library materials and agents of deterioration; techniques of conservation.	2	1	3	4	4	57.1
Children's Library Practice	Child development; children's literature; services offered by the children's library; management of the children's library.	3	2	3	2	4	42.9
Philosophy of Library and Information Science	Different library and information science philosophers; influence of certain philosophical perspectives.	3	1	4	3	3	42.9

Respondents had also been asked to make suggestions about aspects, other than those already included in the B.Tech.(LIS) programme, which should be added to the programme. Suggestions made included:

- cultural diversity;
- budgeting;

- archiving;
- legislation affecting librarianship;
- online cataloguing;
- more information management;
- marketing the library; and
- coverage in Information Technology of aspects such as web design, Internet searching and electronic media in general.

Again, some of these aspects are probably embedded in the modules currently being offered as part of the B.Tech.(LIS) programme. However, respondents probably believe that these aspects should be given more emphasis in the programme. Aspects such as budgeting, online cataloguing, legislation affecting librarianship, marketing and web design seem to be regarded by recent graduates and diplomates as being very relevant to the LIS services work environment as all of these aspects have also been suggested by past students for inclusion in the ND: LIS programme. It is interesting to note that employers surveyed also suggested budgeting for inclusion in the B.Tech.(LIS) programme. In fact this seems to be one of the aspects that have been suggested by both employers and past students surveyed, for inclusion in most of the first level LIS programmes. The growing importance of Information Management in the work place generally and in the LIS services work environment in particular comes through yet again in the call for more Information Management.

When respondents had been asked if they think that the posts they currently hold are commensurate with their B.Tech.(LIS) qualifications, seven or 50% of the 14 respondents indicated that this was so and comments regarding this included:

- the B.Tech.(LIS) curriculum gave me the necessary management skills required for my job;
- the B.Tech.(LIS) curriculum is relevant to my current job and has given me the necessary knowledge and skills required; and
- I occupy the title of Clerk but operate as a Librarian for which the B.Tech.(LIS) is relevant.

Seven or 50% of the 14 respondents stated that the posts they currently hold are not commensurate with their B.Tech.(LIS) qualifications and comments regarding this included:

- knowledge and skills from the B.Tech.(LIS) qualification are not utilised in my current post (six of the seven respondents made comments to this effect); and
- the B.Tech.(LIS) qualification deserves professional status.

4.3.2.8 **Past students' views on the Post-graduate Diploma in Library and/or Information Science programmes**

Past students had been asked to rate the modules that make up the Post-graduate Diploma in Library and/or Information Science programmes offered by universities in South Africa. This Post-graduate Diploma programme is offered by universities in South Africa at the fourth level of study after completion of a bachelor's degree in any field. Past students had been asked to rate each one of the modules (including those which they may not have done at the time when they had been registered for the programme) that had been listed (together with brief descriptions) in the questionnaire (Appendix A) in terms of relevance to their current jobs using a rating scale of 1 to 5. Respondents had also been given the opportunity to indicate and rate any module that they might have done at the time that they had been registered for the programme but which is presently not included in the programme. Respondents, however, seemed to have had no need to use this option. This item had to be responded to only by those respondents who had attained a Post-graduate Diploma in Library and/or Information Science. Eleven or 13.4% of the 82 respondents responded to this item.

Table 4.9 presents the modules (together with brief descriptions) generally included in these Post-graduate Diploma programmes at universities in South Africa. These modules are presented with frequency distributions for each of the five points on the five-point scale. The last column of the table (percentage relevance) adds the

frequency distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 11 respondents who responded to this item thus indicating the relevance of the module as viewed by these past students.

Past students surveyed have, very much like employers surveyed, generally given these Post-graduate Diploma modules high percentage relevance (80% and over) including those aimed at specialised information environments even though the latter in some cases have received percentage relevance relatively lower than modules that apply to LIS services in general.

When respondents to this item had been asked if any of the modules should be removed from Post-graduate Diploma programmes, just one of the 11 respondents suggested that Information Delivery Systems and Information Society should be removed. The former did receive relatively low percentage relevance from past students and the latter perhaps is considered to be somewhat peripheral to the LIS services work environment as it is a more general module and perhaps considered not to be directly relevant to the LIS services work environment. This response of most of the 11 respondents not suggesting that any of the modules be removed from Post-graduate Diploma programmes, is very much in keeping with the generally high percentage relevance received by almost all the modules (80% and over).

Table 4.9

Past students' ratings of modules in the Post-graduate Diploma programmes

(Total number of respondents = 11)

(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
User Studies	Information needs assessment and different user groups; basic research methodology in user studies; design of information literacy programmes.	0	0	0	2	9	100
Fieldwork and Practicals	Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; visits to various libraries and information services; computer laboratory practicals for computer related aspects of instructional offerings.	0	0	0	2	9	100
The Information Society	LIS systems, products and services; introduction to the LIS profession; use of information in the contexts of development and globalisation.	0	0	1	8	2	90.9
Management of Libraries and Information Centres	Management theories; basic principles of management and their application in libraries and information centres.	0	0	1	5	5	90.9
Information Resource Management	Fundamentals of information systems; evaluation and security and control of information systems.	0	0	1	5	5	90.9
Information Resources and Retrieval	Principles and theory of reference and bibliographic work and services; the reference process; selection and evaluation of non-electronic and electronic reference and bibliographic tools.	0	0	1	4	6	90.9
Organisation of Information and Materials	Subject analysis; classification; subject headings; indexing systems.	0	0	1	1	9	90.9
Information and Communication Technologies	Information processing and computers; basic computer configuration; operating systems; application software.	0	0	1	3	7	90.9
Databases and Database Production	Categories and applications of databases and query languages; principles of database construction.	0	0	1	4	6	90.9
Strategic Planning	Development of strategic plans; national development plans centred on the use of information.	0	0	1	6	4	90.9
Research	Basic research methodology; research project.	0	1	0	5	5	90.9
Bibliographic Description	Theory, principles and application of descriptive cataloguing.	0	1	1	2	7	81.8
Automation of Libraries and Information Centres	Computerisation of library operations; information resource sharing networks; various computer (LIS) packages in use.	0	1	1	1	8	81.8
Records and Documents Management	Components of records management programmes; setting up records management programmes; managing electronic records.	0	0	2	2	7	81.8
Information Delivery Systems	Visual displays; newspapers; repackaging information in pamphlet form; information delivery in rural areas.	0	1	2	2	6	72.7

Respondents had also been asked to make suggestions about aspects, other than those already included in Post-graduate Diploma programmes, which should be added to the programme. Suggestions made included:

- information technology should cover more in-depth training in library computer applications, for example, systems librarianship;
- information management;
- fieldwork duration is too short (more in-service training is required); and
- there is superficial coverage of course content (more in-depth coverage is required).

The pre-occupation of recent graduates with IT aspects of LIS services work is evident in the request for more in-depth training in library computer applications. Recent diplomates and graduates also requested greater coverage of IT aspects (such as web design, Internet searching, e-books, e-journals and electronic media generally) in both the ND: LIS and the B.Tech.(LIS) programmes. In fact tracer studies of recent graduates done by Aina and Moahi (1999b: 224) and Ocholla (2001: 154) also reveal this strong pre-occupation of recent graduates with the IT aspects of LIS services work. The growing importance of information management in the work environment generally and in the LIS services environment in particular is revealed again in the request for information management in Post-graduate Diploma programmes. It is interesting to note the request for an increase in the amount of time spent doing fieldwork, which generally in the university based LIS programmes is much shorter than in the technikon based LIS programmes. Respondents in Ocholla's (2001: 154) tracer study of recent graduates from the University of Zululand (South Africa) also requested that the "duration for practicals ... be increased" and "longer attachments" be provided.

When respondents had been asked if they think that the posts they currently hold are commensurate with their Post-graduate Diploma qualifications, nine or 81.8% of the 11 respondents indicated that this was so. Two of the 11 respondents did not respond to this item. Comments accompanying the former response included:

- the Post-graduate Diploma curriculum is relevant to my job;
- while the Post-graduate Diploma provided me with the basic theoretical skills for my job, I picked up the practical skills in the work place; and
- I have been adequately trained for my job.

4.3.2.9 **Past students' views on the Bachelor of Library and Information Science or equivalent four-year university programmes**

Past students had been asked to rate the LIS modules that are part of the B.Bibl. or equivalent four-year LIS programmes offered by universities in South Africa. The programme generally consists of a prescribed number of modules, a certain number of which are library and/or information science (LIS) modules. Past students had been asked to rate each one of the LIS modules (including those which they may not have done at the time when they had been registered for the programme) that had been listed (together with brief descriptions) in the questionnaire (Appendix A) in terms of relevance to their current jobs using a rating scale of 1 to 5. Respondents had also been given the opportunity to indicate and rate any module that they might have done at the time that they had been registered for the programme but which is presently not included in the programme. Respondents, however, seemed to have had no need to use this option. This item had to be responded to only by those respondents who had attained a B.Bibl. or equivalent four-year university degree. Twenty-eight or 34.1% of the 82 respondents responded to this item.

Table 4.10 presents the modules (together with brief descriptions) generally included in the B.Bibl. or equivalent four-year LIS programmes offered at universities in South Africa. The table also includes modules that are offered at certain universities only as they are generally specialist modules. These modules do not include descriptions, as these were unavailable from the sources from which this information was gleaned. Nevertheless, the titles of these modules are quite self-explanatory. *Table 4.10* presents modules with frequency distributions for each of the five points on the five-point scale. The last column of the table (percentage relevance) adds the frequency

distributions for point 4 (relevant) and point 5 (very relevant) of the five-point scale and presents this total as a percentage of the 28 respondents who responded to this item thus indicating the relevance of the module as viewed by these past students.

The general trend (with odd exceptions) that has revealed itself in the rating of modules by employers and past students in the other three LIS programmes (that is, the ND: LIS, the B.Tech.(LIS) and the Post-graduate Diploma programmes) prevailed with the B.Bibl. or equivalent four-year university programmes as well. Modules that are applicable to all types of library and information environments were generally considered to be relevant by past students and received relatively high percentage relevance (80% and over). Modules of a more specialist nature, and ideal to be offered as electives in LIS programmes, received relatively lower percentage relevance. Once again, modules of a more general nature and not directly relevant to the LIS services work environment, received relatively lower percentage relevance.

When respondents to this item had been asked if any of the modules should be removed from the B.Bibl. or equivalent four-year university programmes, four of the 28 respondents each expressed one of the following opinions:

- Special Cataloguing is too specialised for a first level LIS programme;
- there is perhaps too much history in the programme;
- Research Methods is not necessary because research is seldom carried out in the LIS services field; and
- it is not necessary to study museums and archives.

Table 4.10

Past students' ratings of modules in the B.Bibl. or equivalent four-year university programmes

(Total number of respondents = 28)

(1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant; %=percentage relevance)

Module	Description	1	2	3	4	5	%
Bibliographic Control	Purpose, methods and application of bibliographic control.	2	0	0	10	16	92.9
Information Sources	Contents of different types of printed, CD-ROM and Internet-based reference sources.	1	0	1	6	20	92.9
Information and Reference Services	The reference interview; search strategies for manual, online and Internet searches.	1	0	1	6	20	92.9
Bibliographic Description	Theory and practice of descriptive cataloguing.	1	0	1	7	19	92.9
Information and Communication Technology Applications in LIS	Electronic information organisation and retrieval; information retrieval from a selection of systems; database design.	1	1	0	4	22	92.9
Organisation of Information and Materials	Theory and practice of subject analysis; classification; subject headings; indexing; thesaurus construction.	0	0	3	9	16	89.3
Management of Libraries and Information Centres	Management theories and their application to libraries and information centres.	1	0	2	10	15	89.3
Collection Development	Theory and practice in selection of information sources and other media; managing information collections, including serial collections, in the electronic era.	1	0	2	10	15	89.3
Information Resource Management	Fundamentals and management of information systems in organisations.	1	0	3	8	16	85.7
User Studies	Determining user needs and building information collections and services accordingly.	1	0	3	9	15	85.7
Fieldwork and Practicals	Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; computer laboratory practicals for computer related aspects of instructional offerings.	1	1	2	8	16	85.7
Information Environment	Different types of library and information services and agencies, both modern and traditional; information networks.	1	1	3	10	13	82.1
Research Methods	Methods and techniques in conducting and reporting research on information needs, behaviour and services; research project.	1	1	3	9	14	82.1
Applied Record Studies	Different kinds of records in information agencies: their history, characteristics, possible uses and their influence on information agencies and society in general.	1	1	5	15	6	75
Computerised Cataloguing		2	0	5	6	15	75
Advanced Classification		3	0	5	13	7	71.4
Special Cataloguing		3	0	5	14	6	71.4
Origins and Uses of Database in LIS serv.		3	2	5	10	8	64.3
Compilation of Bibliographies		3	4	6	9	6	53.6
Publishing, Printing and the Book Trade		5	1	9	8	5	46.4
Children and Youth Library Services		3	2	11	7	5	42.9
Educational Information Services in Develop. Countries		5	2	12	6	3	32.1

Interestingly, some employers had also expressed the first two opinions above when they commented on the B.Bibl. or equivalent four-year university programmes. Ocholla's (2001: 154) tracer study of University of Zululand graduates also noted a request by recent graduates to "reduce the time allocated to historical librarianship".

Respondents had also been asked to make suggestions about aspects, other than those already included in the B.Bibl. or equivalent four-year university programmes, which should be added to the programme. Suggestions made included:

- a full module in information technology including IT aspects such as database management, web design, Internet searching, digital libraries and systems management (suggestions to this effect were made by 32% of the 28 respondents);
- knowledge management;
- archival science is necessary for those employed in archives;
- cultural diversity;
- structures and technologies necessary in documentation supply (necessary for those functioning in the national library arena);
- experiential learning should begin from the first year level;
- budgeting;
- human resources management; and
- the programme should be reduced to three years and the fourth year should become the honours year.

It is interesting that there has been a suggestion for the B.Bibl. or equivalent four-year university programmes to be reduced to three years especially in the light of the recent trend by some universities to offer three-year bachelors' degrees with majors in Library Science or Information Science or other information related areas. It remains to be seen how entrenched this trend becomes in the future. Section 4.3.1.21 provides opinions of employers surveyed regarding these new three-year qualifications.

Some aspects suggested above that should receive more attention in the B.Bibl. or equivalent four-year university programmes have also been suggested by employers and/or past students as aspects that should receive more attention in the various first level LIS programmes. These include budgeting, human resources management, information and/or knowledge management, more IT, increase in the duration of time allocated to fieldwork or experiential learning. Discussion on these aspects will be pursued in Chapter 5.

When respondents had been asked if they think that the posts they currently hold are commensurate with their B.Bibl. or equivalent four-year university qualifications, 15 or 53.6% of the 28 respondents indicated that this was so and generally provided the following explanation for this response:

- curriculum and training offered by the B.Bibl. or equivalent four-year university qualification are relevant to my job.

Eleven or 39.3% of the 28 respondents claimed that the posts they currently hold are not commensurate with their B.Bibl. or equivalent four-year university qualifications. Two of the 28 respondents did not respond to this item. Comments accompanying the former response included:

- there is a lack of professional posts;
- I am a systems librarian for which I have no training;
- LIS knowledge is peripheral to my job;
- practical management is not taught in the B.Bibl. or equivalent four-year university qualifications;
- knowledge and skills attained through my qualification are not utilised in my current post;
- a four-year degree is too long for what I currently do in my post; and
- theory (the academic programme) and practice (the work place) do not gel.

It seems as if with the university as well as with the technikon based LIS qualifications, while there are a large number of recent diplomates and graduates whose current posts are commensurate with their qualifications, there are still significant numbers of those whose current posts are not commensurate with their qualifications and a range of reasons have been forwarded for the latter.

4.3.2.10 **Choice of university or technikon library and/or information science qualification**

The researcher needed to find out what are some of the factors that made individuals choose between a university based first level LIS qualification and a technikon based first level LIS qualification. Respondents had been provided with a variety of possible responses and were asked to indicate more than one option if necessary. Respondents were also given the opportunity to indicate reasons other than those provided in the range of possible responses. *Table 4.11* and *Table 4.12* present the selection of possible responses as well as responses provided by respondents that were not offered in the questionnaire, together with the number of the 82 respondents (and corresponding percentages) that indicated the various options. Since respondents had been asked to indicate more than one option if necessary, the frequency distributions and corresponding percentages (for both *Table 4.11* and *Table 4.12* together) would not total to 82 and 100%, respectively.

It is evident that the two major reasons for the choice of a university based first level LIS qualification are:

- I wanted to do a university programme because I believed it would make me more employable in the job market as it is generally held in high esteem by society; and
- I had obtained a matriculation exemption and therefore qualified to do a university LIS programme.

Table 4.11

Choice of a university based first level LIS qualification by past student respondents

Total number of respondents (Table 4.11 and Table 4.12) = 82

Reason for choice of a university based first level LIS qualification	Frequency	Percentage
I wanted to do a university programme because I believed it would make me more employable in the job market as it is generally held in high esteem by society	22	26.8
I had obtained a matriculation exemption and therefore qualified to do a university LIS programme	15	18.3
University LIS graduates recommended a university programme	5	6.1
My parents wanted me to choose a university programme	2	2.4
My friends and colleagues recommended a university programme	2	2.4
My employers recommended a university programme	1	1.2
Other reason: Status of a university qualification	1	1.2
Other reason: I was employed by the library at the university at which I studied	1	1.2
Other reason: I wanted in-depth LIS knowledge	1	1.2
Other reason: I moved from a B.A.(Creative Arts) to a B.Bibl. degree	1	1.2
Other reason: I had free study at a university	1	1.2
Other reason: I had a bursary for university study	1	1.2
Other reason: I felt the need for critical thinking	1	1.2

Table 4.12

Choice of a technikon based first level LIS qualification by past student respondents

(Total number of respondents (Table 4.11 and Table 4.12) = 82)

Reason for choice of a technikon based first level LIS qualification	Frequency	Percentage
I wanted to do a technikon programme because I believed it would make me more employable in the job market as a result of its technological, vocational and practical orientation	21	25.6
I did not obtain a matriculation exemption and therefore had to choose a technikon LIS programme which has less stringent entrance requirements	9	11
My friends and colleagues recommended a technikon programme	7	8.5
Technikon LIS diplomates and graduates recommended a technikon programme	6	7.3
Other reason: Technikon study is cheaper	5	6.1
My parents wanted me to choose a technikon programme	4	4.9
My employers recommended a technikon programme	3	3.7
Other reason: I wanted to study via distance education	2	2.4

A major reason for the choice of a technikon based first level LIS qualification is:

- I wanted to do a technikon programme because I believed it would make me more employable in the job market as a result of its technological, vocational and practical orientation.

A further significant reason for the choice of a technikon based first level LIS qualification is:

- I did not obtain a matriculation exemption and therefore had to choose a technikon LIS programme which has less stringent entrance requirements.

It is important to note the fact that technikon study is cheaper was given as a reason by five (6.1%) of the 82 respondents for why they chose a technikon based first level LIS qualification over a university based first level LIS qualification.

Respondents had been asked if they were satisfied with the choice they had made between a university based first level LIS qualification and a technikon based first level LIS qualification. Fifty-nine (59) or 72% of the 82 respondents indicated that they were satisfied and explanations for this response included:

Comments that had been made by respondents who had done a university LIS qualification:

- graduates get recognition, status and professional posts (11.9% of the 59 respondents made comments to this effect);
- facilities are better at universities;
- university qualifications prepare the student for management posts while technikon qualifications do not;
- university qualifications emphasise theory;
- university programmes provide a wider perspective on information retrieval while the technikon programme is very focused and narrow;
- university programmes encourage critical thinking; and
- university teaching is useful and gives a clear picture of the work environment.

Comments that had been made by respondents who had done a technikon LIS qualification:

- experiential learning prepares students for the work environment;
- technological, vocational and practical components of the programme are enhanced by in-service training thus making diplomates more employable (11.9% of the 59 respondents made comments to this effect);
- my employer comments that I am better prepared for an LIS service job than university graduates; and
- technikon study is cheaper.

Comments that had been made with regard to either a university or a technikon LIS qualification:

- curriculum and teaching is relevant to my current job (11.9% of the 59 respondents made comments to this effect);
- the programme offers good preparation for a career in LIS services; and
- the programme has a good balance between theory and practice (18.6% of the 59 respondents made comments to this effect).

A smaller number of seven or 8.5% of the 82 respondents indicated that they were not satisfied with the choice they had made between a university based first level LIS qualification and a technikon based first level LIS qualification. Sixteen or 19.5% of the 82 respondents did not respond to this item. Explanations for the former response included:

Comments that had been made by respondents who had done a university LIS qualification:

- there are few professional jobs on completion of a university degree;
- the technikon better prepares the student for the LIS services work place; and
- the university curriculum lacks depth and in-service training.

Comments that had been made by respondents who had done a technikon LIS qualification:

- employers do not recognise the technikon qualification;
- there is no equity between university and technikon qualifications; and
- there is unfair employment discrimination between technikon diplomates and university graduates.

4.3.2.11 **Education and training resources**

Respondents had been asked whether at the time when they had been registered at educational institutions for their LIS programmes, there had been adequate and up-to-date library resources, information technology resources and physical resources. Fifty-one (51) or 62.2% of the 82 respondents indicated that these resources had been adequate. Eighteen (18) or 22% of the 82 respondents indicated that these resources were not adequate. Thirteen (13) or 15.9% of the 82 respondents did not respond to this item. Explanations for the response that education and training resources were not adequate included:

- limited IT resources for hands-on training (50% of the 18 respondents made comments to this effect and respondents who made these comments came from both universities and technikons but largely from the historically disadvantaged institutions);
- inadequate library collection (22.2% of the 18 respondents made comments to this effect);
- course material was dated;
- learner was removed from resources as a result of distance education; and
- inadequate departmental resources such as a very limited number of DDCs (*Dewey decimal classification* scheme).

Respondents had been asked whether at the time when they had been registered at educational institutions for their LIS programmes, the academic staff had been adequately qualified and up-to-date in their field. Seventy-two percent (72%) of the

82 respondents indicated that academic staff had been adequately qualified. Eleven percent (11%) of the 82 respondents indicated that academic staff had not been adequately qualified and up-to-date in their field. Seventeen point one percent (17.1%) of the 82 respondents did not respond to this item. Explanations for the response that indicated that academic staff were not adequately qualified and up-to-date in their field included:

- academics lack IT background;
- lectures were pitched at too high a level;
- mentor was not qualified to assist me; and
- poor organisation of course, lectures and study material.

4.3.2.12 **Further studies**

Respondents had been asked if they anticipated taking further studies in library and/or information science. Fifty-six (56) or 68.3% of the 82 respondents indicated that they did anticipate taking further studies in the LIS field. Twelve (12) or 14.6% of the 82 respondents indicated that they did not anticipate taking further studies in the LIS field. Fourteen (14) or 17.1% of the 82 respondents did not respond to this item. Explanations for why respondents did not anticipate taking further studies in the LIS field included:

- I already have a master's degree;
- there is no career progression for diplomates in the job environment (25% of the 12 respondents made comments to this effect);
- lack of job opportunities;
- I have no ambition in my present profession;
- I am not interested in studying; and
- I am opting for a different field.

Those respondents (56 of the 82 respondents) who had indicated that they anticipated taking further studies in the LIS field had been asked at what type of institution they would prefer to pursue further studies. Twenty-nine (29) or 51.8% of the 56

respondents indicated that they would prefer to pursue further studies at a university and explanations for this response included:

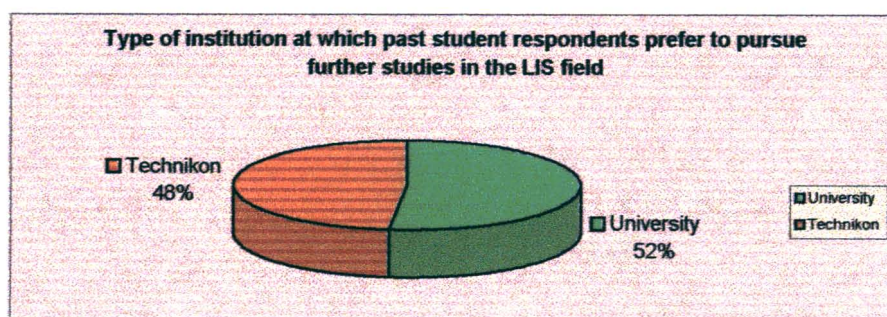
- I would prefer a university as a continuation of my university education into a master's programme;
- I am already midway through a university programme;
- university programmes have better status nationally and internationally;
- I would like to continue at the same level of study, that is, university education;
- a university degree opens more employment doors;
- I have studied through a technikon and would now like to study through a university for the sake of comparing the two types of education;
- I am familiar with university education and would like to continue with it;
- I have confidence studying at a university;
- the programme in knowledge management that I would like to do is only offered at a university;
- I prefer distance education through a university;
- an honours degree is necessary for employment advancement and this is offered at a university;
- the technikon LIS department that I approached would not allow me to choose my own master's research topic and therefore I have approached a university LIS department;
- I find it easier and more relaxed to study through the University of South Africa (Unisa);
- Unisa offers excellent academic support, its qualifications are recognised internationally and it allows critical thinking;
- universities have good teaching and research infrastructure; and
- universities have technological infrastructure.

Twenty-seven (27) or 48.2% of the 56 respondents indicated that they would prefer to pursue further studies at a technikon and explanations for this response included:

- technikon practical orientation better equips the student for the work place (25.9% of the 27 respondents made comments to this effect);
- I am already doing a technikon programme (B.Tech.(LIS));
- I am accustomed to the technikon teaching style and practical content;
- technikon education is very hands-on while university education is too theoretical;
- technikons offer good post-graduate studies;
- technikon programmes have greater depth in the computer field;
- I have a good relationship with academics from a technikon LIS department and I find them very helpful;
- technikon education and training can be done through correspondence;
- it is convenient for me to attend lectures in the technikon LIS department as I am employed by the technikon library; and
- technikon education and training has greater potential for employment.

None of the respondents indicated that they would prefer a type of institution other than a university or a technikon in order to pursue further studies. It is interesting that there is an almost equal division (refer to *Figure 13*) among past students surveyed in the preference for universities or technikons to pursue further studies in the LIS field.

Figure 13



Respondents had been asked if they were currently engaged in further studies. Forty-four (44) or 53.7% of the 82 respondents indicated that they are currently engaged in further studies. Twenty-two (22) or 26.8% of the 82 respondents indicated that they

were not. Sixteen (16) or 19.5% of the 82 respondents did not respond to this item. Explanations for why respondents were not currently engaged in further studies included:

- financial difficulties (31.8% of the 22 respondents cited this as a reason for not being currently engaged in further studies);
- taking a break (22.7% of the 22 respondents cited this as a reason for not being currently engaged in further studies);
- the reason is personal;
- I missed the closing date for registration but I will register the next time round;
- I have no ambition in my present profession;
- I am not interested in studying; and
- I am looking for something more challenging to study.

Those respondents (44 of the 82 respondents) who had indicated that they were currently engaged in further studies, had been asked to give details of the programmes they are currently registered for. Two of the 44 respondents did not respond to this item. The responses from the 42 of the 44 respondents are presented in *Table 4.13* which lists the programmes registered for, the institutions at which respondents are registered and the number of respondents (with corresponding percentages) registered for the different programmes.

It is evident that the university and technikon distance education or correspondence institutions (that is, the University of South Africa and Technikon South Africa, respectively) seem to dominate among the institutions at which respondents are currently registered for further studies. This makes sense when one considers that all the respondents are currently in full-time employment and thus distance education would be a popular option. Among the technikon programmes, the B.Tech.(LIS) seems to be the programme for which a significant number of respondents are registered (a total of 28.6% of the 42 respondents). Among the university programmes the honours programme in library and/or information science seems to be the programme for which a significant number of respondents are registered (a total of 19% of the 42 respondents). This finding is not surprising as these are 'follow on'

university and technikon qualifications after a basic qualification in the field has been completed. *Table 4.13* also reveals other interesting trends related to this study as a whole, which will be discussed in Chapter 5.

Table 4.13
Details of academic programmes that past student respondents are currently registered for (Total number of respondents = 42)

Programme	Institution	Frequency	Percentage
B.Tech.(LIS)	Technikon South Africa	10	23.8
B.Inf.(Hons.) (Bachelor of Information Science)	University of South Africa	6	14.3
M.Tech.(LIS)	Technikon South Africa	2	4.8
B.Inf.	University of South Africa	2	4.8
B.Com.(Hons.)	University of South Africa	2	4.8
B.Com.(Informatics)	University of South Africa	2	4.8
Masters in Information Science	Rand Afrikaans University	2	4.8
M.Com.(Information Management)	Rand Afrikaans University	2	4.8
Information Studies(Hons.)	University of Natal	2	4.8
ND: Archival Studies	Technikon South Africa	1	2.4
ND: Information Technology	Technikon South Africa	1	2.4
B.A.(Information Science)	University of South Africa	1	2.4
Masters in Information Science	University of South Africa	1	2.4
ND: Public Relations Management	Technikon South Africa	1	2.4
M.A.(Development Communication)	University of Pretoria	1	2.4
Masters in Information Studies	University of Natal	1	2.4
Business Admin.(Hons.)	University of the Western Cape	1	2.4
B.Tech.(LIS)	Port Elizabeth Technikon	1	2.4
M.Tech.(Business Admin.)	Vaal Triangle Technikon	1	2.4
B.Tech.(LIS)	M.L. Sultan Technikon (now DIT)	1	2.4
B.Com.	University of South Africa	1	2.4
Total		42	100

4.3.2.13 Articulation

Respondents had been asked if they think it is important that their qualifications should enable them to enter another higher-level programme (in library and/or information science or otherwise) at another type of higher education institution in South Africa or outside the country. Fifty-seven (57) or 69.5% of the 82 respondents believed that their qualifications should ensure this articulation. Two or 2.4% of the 82 respondents responded that they did not think that their qualifications should ensure this articulation but unfortunately they did not provide explanations for this response. Twenty-three (23) or 28% of the 82 respondents did not respond to this item. Explanations provided by those respondents who indicated that they believed that their qualifications should ensure this articulation included:

- all institutions' programmes should be competitive with each other as well as internationally (17.5% of the 57 respondents made comments to this effect);
- there should be some standardisation of qualifications nationally so that students can gain entrance into other institutions without having to repeat courses (10.5% of the 57 respondents made comments to this effect);
- qualifications should be structured in such a way that students can move from one institution to another;
- equality with other institutions locally and nationally is important;
- qualifications must meet required standards and be recognised nationally and internationally;
- the changing nature of work requires multi-skilling, re-skilling and up-grading of qualifications and for these reasons articulation of qualifications between institutions is important;
- the LIS profession is universal and therefore one should be able to attend any institution that provides quality tuition in this field;
- in a world of advancing technology and increasing globalisation one's qualification should be able to allow one access to any higher education institution within or outside South Africa;

- the standard of my present qualification is high and I therefore should be able to continue with my studies at any other institution;
- this articulation is important in order to keep abreast with changing knowledge and innovations in technology in the LIS services field;
- such articulation is important as it provides opportunities for further and advanced education; and
- such articulation is important as it allows one to continue with one's studies at the international level.

There does seem to be a strong feeling among a significant number of recent graduates and diplomates surveyed, that their qualifications should allow them to articulate between higher education institutions both nationally and internationally. It is interesting that some of the respondents have called for some standardisation of qualifications nationally in order to facilitate articulation of qualifications between institutions. The literature does indicate that there are current attempts to develop a single co-ordinated system of higher education in South Africa that brings together universities, technikons, colleges and private providers of higher education and will attempt to facilitate, among other things, articulation of qualifications among different types of higher education institutions.

4.3.3 **Survey of educators**

Questionnaires (Appendix C) had been distributed to educators in LIS education and training departments or programmes based in universities and technikons in South Africa, in order to gather data on their views regarding first level LIS qualifications and their relevance to the LIS services work environment. Out of a total of 65 questionnaires that were distributed to educators in thirteen LIS education and training departments or programmes based in universities and technikons in South Africa 34 completed questionnaires, or 52% of the total number of questionnaires distributed, were returned to the researcher.

4.3.3.1 Departments or programmes and institutions in which respondents are currently teaching

Table 4.14 provides the names of academic departments or programmes, schools (where applicable), faculties and institutions in which respondents are currently teaching, as well as the number of respondents from each one of the academic departments or programmes.

There was at least one respondent from each of the 13 universities and technikons in South Africa currently offering programmes in library and/or information science (LIS) education and training. While most of these LIS programmes are located within the administrative structure of departments, a few are located within wider programmes such as the Information Studies Programme and the Sub-programme Library and Information Studies at the University of Natal and Technikon South Africa, respectively. It is interesting to note that the term 'schools', for example library schools or library and information schools, which is very prevalent in the international literature on LIS education and training as well as in literature emanating from South Africa, is not reflected in the names of any of the departments listed. However, very much in keeping with an international trend, the names of the various LIS departments and programmes reflect the growing importance of information science in the discipline of library and information science. The literature reviewed in Chapter 2 makes reference to a general trend, both locally and internationally, of LIS departments or schools reflecting this growing importance of information science. In South Africa too, as done in other parts of the world, the word 'information' has been added to the names of departments or programmes (and logically to the titles of qualifications as well) and in some cases the word 'library' has been done away with completely showing once again the preponderance of the information aspect of the discipline. While some departments still find it necessary to retain the word 'library' in the names of their departments or programmes as they probably believe that libraries are still an important aspect of the education and training that they offer, the department at the University of Cape Town has, interestingly, changed the order in

which the terms 'library' and 'information' appear in the name of their department. This innovative exercise reflects the growing importance of the information aspect of

Table 4.14

Departments or programmes and institutions at which educator respondents are currently teaching

Department or Programme	School (where applicable)	Faculty	Institution	No. of respond.
Department of Library and Information Studies	–	Commerce	M.L. Sultan Technikon (now DIT)	6
Department of Information Science	–	Arts	Rand Afrikaans University	1
Sub-programme Library and Information Studies	–	Applied Community Sciences	Technikon South Africa	1
Department of Information and Library Studies	–	Humanities	University of Cape Town	3
Department of Library and Information Science	–	Management, Development and Commerce	University of Fort Hare	1
Information Studies Programme	Human and Social Sciences	Human and Management Sciences	University of Natal	4
Department of Information Science	–	Engineering, Built Environment and Information Technology	University of Pretoria	2
Department of Information Science	Applied Social Sciences	Humanities and Social Sciences	University of South Africa	3
Department of Information Science	–	Arts	University of Stellenbosch	3
Department of Information Studies	Languages and Communication Studies	Humanities	University of the North	2
Department of Library and Information Science	–	Arts	University of the Western Cape	4
Department of Library and Information Science	–	Arts	University of Transkei	2
Department of Library and Information Science	–	Arts	University of Zululand	2
Total				34

the discipline and at the same time acknowledges that libraries are still an aspect of the education and training offered by the department. A few departments and

programmes have opted for the word 'studies' rather than 'science' in their names. This is possibly a reflection of a degree of scepticism on the part of some, as pointed out in the literature, as to whether library and information science is really a science.

While some LIS departments or programmes are organised into schools within a faculty, many are not and are simply part of a faculty. There have been some changes in the faculties in which LIS departments and programmes are housed since Van Brakel's (1992) study of LIS education and training at South African universities. According to Van Brakel's (1992: 189) study most of the LIS departments had been housed in the social sciences or arts faculties with the exception of the department at the University of Cape Town, which was housed in the faculty of education. The current study reveals that while many of the departments or programmes are still housed within the traditional humanities/social sciences or arts faculties, some departments have now ventured into other and more recently constituted faculties such as Engineering, Built Environment and Information Technology and Applied Community Sciences in the case of the University of Pretoria and Technikon South Africa, respectively. Interestingly, some departments have even clustered themselves with management and business related academic departments within the commerce faculty. Examples here include departments at M.L. Sultan Technikon (now DIT or the Durban Institute of Technology) and at the University of Fort Hare. Perhaps some LIS departments view the IT orientation of their departments as making them more closely allied to management and business related departments that have a strong IT focus rather than to departments in the traditional humanities/social sciences or arts faculties. In fact the literature does point out that the information revolution together with advancing technology has resulted increasingly in computer science departments and business related academic departments moving into the arena of training information professionals, which has traditionally been done by library and/or information science departments. For this reason perhaps some LIS departments probably feel a closer affinity to these departments with whom they could possibly even establish interdisciplinary programmes as the literature reveals has been happening in Australian LIS education and training.

4.3.3.2 Designations and qualifications of respondents

When respondents had been asked what their designations were in their institutions the following responses were received:

Table 4.15

Designations of educator respondents

(Total number of respondents = 34)

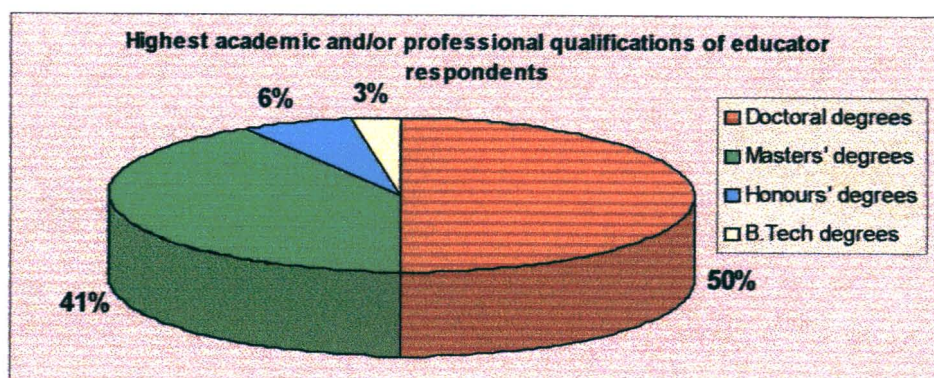
Designation	No. of respondents
Professor	5
Associate Professor	2
Head of Department (some of whom are likely to be professors)	5
Programme Director (and Professor)	1
Principal Lecturer	1
Senior Lecturer	8
Lecturer	11
Associate Lecturer	1
Total	34

Unfortunately some of the respondents indicated only their titles (for example, Professor) and not their designations (for example, Head of Department). For this reason the researcher was obliged to include the titles of Professor and Associate Professor in *Table 4.15*. By the same token there were those respondents who responded to the item appropriately by indicating their designations (for example, Head of Department) but not their titles (for example, Professor). Despite these anomalies *Table 4.15* provides some indication of the distribution of titles and designations among the 34 respondents. It makes sense that the largest numbers of respondents would come from the ranks of Lecturer and Senior Lecturer as there are likely to be more staff at these levels.

Respondents had also been asked to indicate their academic and professional qualifications. Here again respondents were sometimes not very precise about whether, for example, a master's or doctoral degree was in library and information

science or perhaps in some other discipline. The researcher was left to presume in these cases that if the degree were in some other discipline the respondent would have indicated so. The result is that *Figure 14* reflects all the qualifications to be in the discipline of library and/or information science. This is a likely scenario considering that these are educators in the discipline of library and information science and thus most (if not all) of the respondents are likely to have qualifications in this discipline. The fact that 17 or 50% of the 34 respondents have doctoral degrees and 14 or 41.2% have masters' degrees is an indication of a healthy state of the academe in library and information science in South Africa. Only two or 5.9% of the 34 respondents have just honours degrees and only one or 2.9% just a B.Tech. degree. The respondent with the B.Tech. qualification is the respondent reflected in *Table 4.15* as having the designation of Associate Lecturer which is generally not a full lecturing post.

Figure 14



Respondents had also been asked to indicate when they had attained their highest qualifications. The majority of the 34 respondents (26 or 76.5%) had attained their highest qualifications after 1990. Fifteen or 44.1% attained their highest qualifications between 1996 and 2000, eight or 23.5% between 1991 and 1995, and three or 8.8% after 2001. This is a good indication that the majority of LIS educators surveyed have relatively recently furthered their qualifications (and judging by *Figure 14*, mostly to masters' and doctoral degrees) and thus may be considered to be up-to-date in their field.

Respondents had also been asked to indicate the institutions from which they had obtained their highest qualifications. *Table 4.16* reflects the responses here.

Table 4.16

Institutions from which educator respondents had obtained their highest qualifications

(Total number of respondents = 34)

Institution	No. of respondents	Percentage
University of Natal	7	20.6
University of Cape Town	3	8.8
University of South Africa	3	8.8
Rand Afrikaans University	3	8.8
University of the Western Cape	3	8.8
University of Pretoria	2	5.9
University of Stellenbosch	2	5.9
University of Zululand	1	2.9
Technikon South Africa	1	2.9
University of Pittsburgh, United States of America	1	2.9
Loughborough University, United Kingdom	1	2.9
University of Pietersburg, Russia	1	2.9
University of Ibadan, Nigeria	1	2.9
University of Wales, United Kingdom	1	2.9
No response to the item	4	11.8
Total	34	100

The University of Natal seems to dominate among the institutions from which respondents had obtained their highest qualifications. While most of the respondents obtained their highest qualifications from within South Africa, only five or 14.7 % of the 34 respondents obtained them from abroad. South African higher education institutions seem to be the more popular choice for educators surveyed in deciding where to pursue further qualifications. It is evident here, as well as in the responses to the item that asked respondents to indicate their academic and professional qualifications that university qualifications as opposed to technikon qualifications dominate among educators surveyed. A contributing factor here could probably be the fact that technikon LIS qualifications are a relatively new development compared to university qualifications that are more established.

4.3.3.3 First level library and/or information science qualifications offered

Respondents had been asked to indicate from a range of options provided (refer to Appendix C), the first level library and/or information science qualifications offered by their departments or programmes. *Table 4.17* summarises these responses in terms of departments or programmes, and institutions in which the 34 respondents are located.

One respondent each from the University of the Western Cape and the University of Transkei mentioned under “other first level LIS related qualifications” offered by their departments, the Lower Diploma in Library and Information Science. The literature reviewed does indicate that universities in South Africa have phased out this qualification. The above two institutions are still in the process of phasing out this qualification. This has been confirmed by LIS departments both at the University of the Western Cape (King 2002) and at the University of the Transkei (Alabi 2002). This explains why the odd respondent, and not all respondents from the two LIS departments mentioned, has indicated this as a qualification offered by the department. Since this qualification is being phased out it has not been included in *Table 4.17*. The National Diploma in Information Science has been mentioned in the findings from the survey of employers as well as in the findings from the survey of past students as an ‘odd’ qualification offered by just one correspondence or distance education university, that is, the University of South Africa (Unisa). This qualification had not been put forward by any of the respondents from this LIS department as being a first level LIS qualification offered by the LIS department at Unisa. A possible reason for this could be that the department views it more as an exit point at which a student registered for the four-year B.Inf. (Bachelor of Information Science as the B.Bibl. is now known at Unisa and at some other universities) may decide to graduate with a Diploma in Information Science. Those who go on to complete the programme are obviously awarded the B.Inf. The LIS department at Unisa has confirmed (Birrell 2002) that it sees the Diploma in Information Science more as an exit point rather than a qualification offered by the department. The researcher was also able to ascertain

this situation from explanations regarding this qualification made both by past student respondents as well as by some employer respondents. For reasons just explained, this qualification is not reflected in *Table 4.17*. Unlike other universities in South Africa who offer a one-year post-graduate qualification for those individuals who wish to pursue a career in LIS services and who already possess a bachelor's degree, the University of the Western Cape offers a two-year post-graduate qualification called the B.Bibl.(Alternative) for such individuals. According to the LIS department at the University of the Western Cape (King 2002) only a few students register for this programme as it involves a total of five years of university education and training as opposed to the B.Bibl. that is also offered by the department and takes four years to complete.

Table 4.17 has captured first level LIS qualifications commonly offered by higher education institutions in South Africa, that is the ND: LIS, the B.Tech.(LIS), the Post-graduate Diploma in Library and/or Information Science and the B.Bibl. or equivalent four-year university degree, which are the focus of this study. The table also reveals the new trend in some universities of offering three-year bachelors' degrees with majors or specialising in particular information related areas as an attempt to capture the emerging information markets by preparing graduates for the wider information market and not just libraries. Qualifications in school librarianship and other specialist areas are specialist qualifications that are not the focus of this study, as pointed out in the methodology part of this study, and are therefore not reflected in *Table 4.17*.

Table 4.17

First level LIS qualifications offered by LIS departments or programmes

Department or Programme	Institution	Qualification
Department of Library and Information Studies	M.L. Sultan Technikon (now DIT)	*ND: LIS; *B. Tech.(LIS)
Department of Information Science	Rand Afrikaans University	*Bachelor's degree (three years) with a major or specialising in Information Science
Sub-programme Library and Information Studies	Technikon South Africa	*ND: LIS; *B. Tech.(LIS)
Department of Information and Library Studies	University of Cape Town	*Post-graduate Diploma in Library and/or Information Science
Department of Library and Information Science	University of Fort Hare	*B.Bibl./B.Inf. or equivalent four-year university degree
Information Studies Programme	University of Natal	*Post-graduate Diploma in Library and/or Information Science
Department of Information Science	University of Pretoria	*Bachelor's degree (three years) with a major or specialising in Library Science; *Bachelor's degree (three years) with a major or specialising in Information Science; *Bachelor's degree (three years) with a major or specialising in Multimedia; *Bachelor's degree (three years) with a major or specialising in Publishing; *Bachelor's degree (three years) with a major or specialising in Information and Knowledge Management
Department of Information Science	University of South Africa	*B.Bibl./B.Inf. or equivalent four-year university degree; *Bachelor's degree (three years) with a major or specialising in Information Science; *Bachelor's degree (three years) with a major or specialising in Archival Science
Department of Information Science	University of Stellenbosch	*Bachelor's degree (three years) with a major or specialising in Information Science
Department of Information Studies	University of the North	*Post-graduate Diploma in Library and/or Information Science; *B.Bibl./B.Inf. or equivalent four-year university degree
Department of Library and Information Science	University of the Western Cape	*B.Bibl./B.Inf. or equivalent four-year university degree; *B.Bibl.(Alternative) (a two-year post-graduate qualification for those who have completed a bachelor's degree)
Department of Library and Information Science	University of Transkei	*Post-graduate Diploma in Library and/or Information Science; *B.Bibl./B.Inf. or equivalent four-year university degree
Department of Library and Information Science	University of Zululand	*Post-graduate Diploma in Library and/or Information Science; *B.Bibl./B.Inf. or equivalent four-year university degree; *Bachelor's degree (three years) with a major or specialising in Information Science

Some library and/or information science (LIS) departments such as those at the University of Stellenbosch and the Rand Afrikaans University seem to have dropped the librarianship aspect of their education and training and have gone completely the route of preparing three-year graduates for the wider information market. The University of Pretoria seems to be doing the same, except that it still offers a major in Library Science in one of its three-year bachelors' degrees. Other LIS departments such as those at Unisa and the University of Zululand are also offering three-year bachelors' degrees with majors or specialising in Information Science or other information related areas, but have still retained their four-year B.Bibl./B.Inf. qualification and are thus maintaining the librarianship aspect of their education and training. The rest of the LIS departments seem to be taking the traditional route of offering the B.Bibl./B.Inf. or equivalent four-year university degree and/or the Post-graduate Diploma in Library and/or Information Science. LIS departments also offer specialist qualifications and higher degree qualifications that are outside the parameters of this study.

4.3.3.4 **Average number of students registered for first level LIS qualifications in the last five years**

Co-ordinators or programme leaders of first level LIS programmes or heads of LIS departments or programmes had been asked to indicate the average number of students registered in the last five years (1998-2002) for each level/year of study in programmes leading to first level LIS qualifications. *Table 4.18* presents these statistics. Unfortunately not all institutions offering these first level LIS qualifications provided average registration statistics. Names of institutions have been included in *Table 4.18* in order to make the findings more meaningful. While the newer three-year bachelors' degrees with majors or specialising in information related areas are not the focus of this study but have been discussed from time to time to reveal new developments in LIS education and training in South Africa, *Table 4.18* captures average registration statistics for these qualifications as well in order to reveal any possible trends in average registration statistics here.

In the case of the Post-graduate Diploma, statistics are not reflected in *Table 4.18* for the University of the Transkei as these had not been provided. In the case of the B.Bibl. or equivalent four-year university degree, statistics are not reflected for the University of South Africa and the University of Transkei as these had also not been provided. With regard to the technikon qualifications, the average registration statistics for the different levels of study seem to be consistently higher for the correspondence or distance education technikon, that is, Technikon South Africa compared to M.L. Sultan Technikon (now DIT). This is expected seeing that the former draws students from the entire country while the latter is largely regionally based in the province of KwaZulu Natal. With regard to the Post-graduate Diploma, the average registration statistics seem to be pretty even for most of the institutions offering this qualification, except for the University of Natal whose statistics seem to be somewhat higher than those of other institutions. With regard to the B.Bibl. or equivalent four-year university degree, the average registration statistics seem to be quite disparate among the different institutions offering this qualification. However, most of them do follow the logical order of the highest average registration figure being at the first level/year and the lowest at the fourth and final level/year. The odd exception here is the University of the North for which the average registration statistics for the four levels seem to follow the opposite order. This leads the researcher to believe that there is some error in the statistics that have been provided here. A further observation with the B.Bibl. or equivalent four-year university degrees is that the average registration statistics for the first level/year of study seems to be particularly high in the case of some institutions, for example, the University of the Western Cape. This is probably the result of the fact that in some institutions LIS subjects such as Library Science or Information Science are offered across the campus as a general degree subject and this inflates the registration figures at the first year level. In fact a respondent (Head of Department) from the LIS department at the University of the Western Cape expressed this view in his response to this item.

Table 4.18

Average number of students registered in the last five years (1998-2002) for each level/year of study in programmes leading to first level LIS qualifications

Qualification	Institution	first level/year	second level/year	third level/year	fourth level/year
ND: LIS (three years)	M.L. Sultan Technikon (now DIT)	50	40	30	
ND: LIS (three years)	Technikon South Africa	120	90	50	
B.Tech.(LIS) (fourth level)	M.L. Sultan Technikon (now DIT)				10
B.Tech.(LIS) (fourth level)	Technikon South Africa				16
Post-graduate Diploma (fourth level)	University of Natal				21
Post-graduate Diploma (fourth level)	University of the North				13
Post-graduate Diploma (fourth level)	University of Cape Town				12
Post-graduate Diploma (fourth level)	University of Zululand				10
B.Bibl. or equivalent four-year university degree	University of the Western Cape	100	70	50	35
B.Bibl. or equivalent four-year university degree	University of Zululand	20	20	20	20
B.Bibl. or equivalent four-year university degree	University of Fort Hare	90	50	18	15
B.Bibl. or equivalent four-year university degree	University of the North	34	40	65	67
Bachelor's degree (three years) with a major or specialising in Information Science	University of Stellenbosch	68	45	35	
Bachelor's degree (three years) with a major or specialising in Information Science	University of Zululand	15	15	15	
Bachelor's degree (three years) with a major or specialising in Information Science	Rand Afrikaans University	25	12	10	
Bachelor's degree (three years) with a major or specialising in Information Science	University of Pretoria	250	200	150	

With regard to the new three-year bachelors' degrees with majors or specialising in information related areas, of the five institutions that are currently offering these qualifications, Unisa unfortunately has not provided any average registration statistics. While the University of Pretoria offers five such degrees with majors or specialising

in five different information related areas, average registration statistics have been provided just for the bachelor's degree with a major or specialising in Information Science. For these qualifications as well, the average registration statistics seem to be quite disparate among the different institutions offering this type of qualification with the University of Pretoria having significantly higher average registration statistics compared to the other institutions. It is important to note that with this new type of qualification, respondents from LIS departments offering them have indicated that the average registration statistics could not be worked out for the last five years as many of these qualifications have been more recently introduced and thus the average calculations had to be based on fewer than the last five years.

4.3.3.5 **IFLA-SET guidelines (core curriculum)**

As stated in section 4.3.1.22 the International Federation of Library Associations and Institutions - Section on Education and Training (IFLA-SET) has recently developed and adopted the *Guidelines for professional library/information educational programs* (2000). IFLA-SET has suggested in these guidelines that the following core elements should be included in an academic programme leading to a first level professional library and/or information science (LIS) qualification:

- ❖ The Information Environment, Information Policy and Ethics, the History of the Field;
- ❖ Information Generation, Communication and Use;
- ❖ Assessing Information Needs and Designing Responsive Services;
- ❖ The Information Transfer Process;
- ❖ Organisation, Retrieval, Preservation and Conservation of Information;
- ❖ Research, Analysis and Interpretation of Information;
- ❖ Applications of Information and Communication Technologies to Library and Information Products and Services;
- ❖ Information Resource Management and Knowledge Management;
- ❖ Management of Information Agencies; and

❖ Quantitative and Qualitative Evaluation of Outcomes of Information and Library Use.

(International Federation of Library Associations and Institutions 2000: 2)

Co-ordinators or programme leaders of first level LIS programmes or heads of LIS departments or programmes had been asked to list which of these core elements are offered by their departments or programmes as part of academic programmes leading to first level LIS qualifications. These respondents had also been asked that if these core elements are offered as part of other modules they must indicate the percentage of these modules that the core elements constitute. Unfortunately, with the exception of one or two respondents, this latter aspect of the item was not answered by the respondents concerned which made the researcher realise that it was perhaps too much to ask of respondents to provide such detailed information. Thus the researcher simply focussed on responses concerning core elements that are offered by departments or programmes as part of academic programmes leading to first level LIS qualifications.

There were responses to this item from 11 or 84.6% of the 13 LIS departments or programmes surveyed. One technician LIS department and one university LIS department did not respond to this item. Seven or 63.6 % of the 11 responses indicated that all of the core elements from the IFLA-SET guidelines are offered as part of programmes leading to first level LIS qualifications offered by their departments. Unfortunately, the researcher was not able to ascertain the extent to which these core elements are offered in these programmes because, as explained above, respondents did not generally respond to the latter part of this item. Four or 36.4 % of the 11 responses indicated that certain of the core elements from the IFLA-SET guidelines are not offered as part of programmes leading to first level LIS qualifications offered by their departments. Among these four LIS departments, different core elements from the IFLA-SET guidelines have been indicated as not being currently included in their first level LIS programmes. However, the one core element that is not excluded from any of these first level LIS programmes is:

- Organisation, Retrieval, Preservation and Conservation of Information.

All educators surveyed had been asked if there are any core elements from the IFLA-SET guidelines that they think should not be part of a first level LIS programme. Twenty-nine (29) or 85.3% of the 34 respondents believed that all the core elements should be part of a first level LIS programme. One of the 34 respondents did not respond to this item. Four or 11.8% of the 34 respondents indicated (collectively) that the following core elements should not be part of a first level LIS programme:

- The Information Transfer Process (Unfortunately no reason was provided for why this core element should not be part of a first level LIS programme.);
- The Information Environment, Information Policy and Ethics, the History of the Field (Again, no reason was provided for why this core element should not be part of a first level LIS programme.); and
- Research, Analysis and Interpretation of Information (The reason provided for why this core element should not be part of a first level LIS programme is that poor schooling backgrounds in the South African context, for historical reasons, and resulting cognitive problems may be deterring factors here and therefore this core element should be offered at a subsequent level.).

One of the four respondents who indicated that there are core elements listed in the IFLA-SET guidelines that should not be part of a first level LIS programme did not specify a particular core element but made the following interesting general comment: “Despite the addition of ‘...and information’ to all its statements, it is clear that IFLA-SET’s conception of the information field is limited to libraries and library related institutions. The field of information work is infinitely wider in scope. Therefore IFLA-SET’s conceptual framework of ‘the field’ is too narrow for any tertiary educational programme that designates its ‘field’ as information.” It is interesting to note that, quite appropriately, this response comes from a respondent (head of department) from one of those LIS departments, mentioned in section 4.3.3.3, that has dropped the librarianship aspect of its education and training and has gone completely the route of preparing graduates for the wider information market.

All educators surveyed had been asked if there are any other LIS elements that are not listed in the IFLA-SET guidelines that they think should form part of the core library and/or information science curriculum. Twenty (20) or 58.8% of the 34 respondents did not think there that were any other LIS elements that should form part of the core library and/or information science curriculum. One of the 34 respondents did not respond to this item. Thirteen (13) or 38.2% of the 34 respondents suggested (collectively) that the following LIS elements should also form part of the core library and/or information science curriculum for a first level LIS qualification: (Where explanations had been provided by respondents as to why these elements should be included, these are enclosed in parenthesis.)

- information literacy;
- record studies (it is important that a first level LIS curriculum includes the different forms of human communication and its influence on society and people);
- information theory;
- philosophy of library and information science;
- history and culture of the 'book';
- digital and virtual libraries;
- general management principles (management principles can be applied to any discipline and the trend nowadays is to manage institutions in a 'business like manner');
- records and documents management (this is an important focus for information management in South Africa);
- field work or experiential learning (this is important for adding a 'community dimension' to the learning programme and for entering the world of work in a guided way);
- serving illiterate and rural communities (an understanding of the social issues relating to information storage for and access by these users is important in a first/third world country like ours);

- aspects of reading such as teaching of reading to children and adult non-literates, illiteracy, censorship, propaganda, etc. (LIS professionals should be able to recognise these issues in selection of material and in service delivery);
- literacy studies (the South African context demands this);
- a core reading programme to teach reading skills to historically disadvantaged students (necessary in the South African context);
- children's literature and media (expertise in this area is a fundamental competency for public librarians);
- strategic planning;
- organisational behaviour;
- interpersonal skills;
- information law;
- multi-media design and programming;
- database structuring;
- object oriented programming languages and mark-up languages;
- human-computer interface design;
- decision support systems and services;
- project management; and
- infopreneurship.

The diversity of areas suggested by educators for inclusion in the core library and/or information science curriculum for a first level LIS qualification as well as the differences among LIS departments or programmes in aspects of the core curriculum suggested by IFLA-SET that are currently included in their first level LIS programmes, reiterates a general point made in the literature that it is difficult to be precise about what exactly constitutes the core in library and/or information science education and training.

4.3.3.6 Niche area/s of library and/or information science departments or programmes

All educators surveyed had been asked if the programmes leading to first level qualifications offered by their departments (or programmes) have particular foci, which they view as niche areas for their particular departments (or programmes). Seven or 20.6% of the 34 respondents indicated that their first level LIS programmes did not have niche areas. Two of the 34 respondents did not respond to this item. Twenty-five (25) or 73.5% of the 34 respondents indicated that their first level LIS programmes did have particular foci, which they viewed as niche areas for their particular departments (or programmes). *Table 4.19* presents these niche areas by departments or programmes. Names of institutions have been included in *Table 4.19* in order to make the findings more meaningful.

Table 4.19 reveals an interesting array of niche areas or specialisations among LIS departments or programmes in South Africa.

Table 4.19

Niche area/s of library and/or information science departments of programmes

Department or Programme	Institution	Niche area(s)
Department of Library and Information Studies	M.L. Sultan Technikon (now DIT)	* Digital information technologies; * Community librarianship/information work;
Department of Information Science	Rand Afrikaans University	* Management of information as an economic resource
Sub-programme Library and Information Studies	Technikon South Africa	* Digital librarianship/information work
Department of Information and Library Studies	University of Cape Town	* Information society
Department of Library and Information Science	University of Fort Hare	No niche area
Information Studies Programme	University of Natal	* Records and documents management; * Information needs assessment
Department of Information Science	University of Pretoria	* Information for development
Department of Information Science	University of South Africa	* General librarianship; * Archival practice; * Information and knowledge management
Department of Information Science	University of Stellenbosch	* Digital information work in the corporate information environment (Corporate information management)
Department of Information Studies	University of the North	* Public librarianship; * Rural librarianship
Department of Library and Information Science	University of the Western Cape	* School librarianship; * Children's and youth librarianship
Department of Library and Information Science	University of Transkei	* Rural librarianship
Department of Library and Information Science	University of Zululand	* Assessing information needs, services and users; * Knowledge management; * Digital information work

4.3.3.7 **IFLA-SET guidelines (essential skills)**

IFLA-SET has also suggested that methods of teaching and assessment should be designed to develop or enhance the following skills:

- ❖ Interpersonal communication skills;
- ❖ Ability to work in teams;
- ❖ Time and task management skills; and
- ❖ Analytical and problem-solving skills.

(International Federation of Library Associations and Institutions 2000: 2)

All educators surveyed had been asked if they think these are important skills that are necessary to be built into their teaching and assessment methods. Thirty-one (31) or 91.2% of the 34 respondents indicated that this was so and provided explanations such as the following for their responses:

- all these skills are necessary for successful delivery of library and/or information services; and
- these are important generic intellectual skills applicable to library and/or information workers.

One of the 34 respondents did not respond to this item. Two of the 34 respondents did not think that it is necessary for these skills to be built into their teaching and assessment methods. One of these two respondents argued that these skills can be taught during in-service training and that the academic programme should move away from skills training to more theoretical aspects (such as what is information, the ‘informatisation’ of society, the role of information in society) and that higher level skills such as reading, writing and thinking are more important and need to be built into teaching and assessment methods. The other respondent, who comes from one of the LIS departments that offers one of the new three-year bachelors’ degrees with a major in Information Science, stated that it was not necessary for them to build these skills into their teaching and assessment methods as these skills are already built into

the other majors (Business Management and Economics) offered in their degree programme.

All educators surveyed had also been asked if there are other skills for first level LIS qualifications apart from those suggested by IFLA-SET, that they think are essential and/or have built into their teaching and assessment methods. Sixteen (16) or 47.1% of the 34 respondents indicated that there are no other skills to be added to those suggested by IFLA-SET. Four or 11.8% of the 34 respondents did not respond to this item. Fourteen (14) or 41.2% of the 34 respondents indicated that there were other skills for first level LIS qualifications apart from those suggested by IFLA-SET, that they think are essential and/or have built into their teaching and assessment methods. This latter group collectively suggested the following skills:

- computer literacy skills;
- information literacy skills;
- critical and independent thinking;
- report writing skills;
- presentation skills;
- personnel management skills;
- customer care and service delivery skills;
- orientation towards community service;
- general knowledge (gained through the study of different knowledge fields);
- awareness of cross-cultural and multi-cultural issues; and
- practical skills (hands-on experience of day to day LIS services tasks).

It is implicit that some of these skills (and knowledge and attitudes) suggested by educators, for example, orientation towards community service and awareness of cross-cultural and multi-cultural issues, have been done so with the South African context in mind. This is very much in keeping with suggestions made in the literature on LIS education and training in South Africa that LIS education and training must take cognisance of the local and African context.

4.3.3.8 IFLA-SET guidelines (resources and facilities)

IFLA-SET has suggested that the following instructional resources and facilities should be available to support the delivery of the academic programme to students:

- ❖ **Library resources:** These should be of sufficient depth, quantity and accessibility to support the programme offered. These should include monographs and serial publications, in print and electronic formats; a range of bibliographic tools to support teaching and research; and other appropriate media. A procedure for access to additional resources from other locations should be in place;
- ❖ **Information technology resources:** Computer hardware and software and multimedia resources should be available for students and teaching staff and be sufficient for the level of use required;
- ❖ **Internet resources:** Adequate connections to the Internet should allow ready access for students and teaching staff; and
- ❖ **Physical facilities:** The programme's physical facilities should provide adequate support for students and teaching staff to accomplish their objectives.

(International Federation of Library Associations and Institutions 2000: 4)

All educators surveyed had been asked if they think all of these are important instructional resources that are necessary to support the delivery of the academic programme. Thirty-two (32) or 94.1% of the 34 respondents indicated that this was so. One of the 34 respondents did not respond to this item and one of the 34 respondents (who comes from a correspondence or distance education institution) responded that **physical facilities** “do not apply in all aspects with a distance teaching mode”.

All educators surveyed had also been asked if the first level LIS programme(s) offered by their departments (or programmes) have all the instructional resources and

facilities suggested by IFLA-SET. One of the 34 respondents did not respond to this item. Fourteen (14) or 41.2% of the 34 respondents indicated that their departments or programmes did not have all the instructional resources and facilities suggested by IFLA-SET and collectively provided the following explanations for this response:

- inadequate IT resources and/or support (five or 35.7% of the 14 respondents provided explanations to this effect);
- inadequate library resources due to financial constraints (four or 28.6% of the 14 respondents provided explanations to this effect);
- access to additional resources via inter-library loans is only available to post-graduate students and not to under-graduate students;
- distance education prevents development of all resources and facilities (an explanation from a respondent from a correspondence or distance education institution);
- the department has these resources and facilities but not enough;
- some library application software (for example, INMAGIC) are not available;
- inadequate departmental resources (for example, too few DDCs, inadequate overhead projection facilities);
- no departmental IT laboratory (thus have to rely on the university library computer facilities to provide students with hands-on experience); and
- quantity and quality of resources are inadequate due to rapid changes in learning and user requirements.

Nineteen (19) or 55.9% of the 34 respondents indicated that their departments or programmes had all the instructional resources and facilities suggested by IFLA-SET. When these respondents had been asked to explain what instructional resources and facilities their departments or programmes have, most respondents unfortunately answered very briefly and not in as much detail as the researcher would have preferred. Perhaps here again, detailed responses were too much to expect of respondents. Notwithstanding this, the researcher managed to extract the following comments from among the 19 respondents who claimed that their departments or programmes had all the instructional resources and facilities suggested by IFLA-SET:

- have good library facilities (10 or 52.6% of the 19 respondents made comments to this effect);
- have good IT resources including full Internet access for students in computer laboratories (nine or 47.4% of the 19 respondents made comments to this effect);
- have good physical facilities such as classrooms and lecture halls (five or 26.3% of the 19 respondents made comments to this effect);
- have all the instructional resources and facilities suggested by IFLA-SET;
- have all the instructional resources and facilities suggested by IFLA-SET except that some of the resources require updating; and
- have access to DIALOG and the Internet.

The comments on the lack of or inadequate instructional resources and facilities come from respondents from both universities and technikons. However, these comments did come largely from respondents from historically disadvantaged institutions.

All educators surveyed had also been asked if they think there are other key instructional resources and facilities that should be added to the list suggested by IFLA-SET. Twenty-seven (27) or 79.4% of the 34 respondents stated that there were no other key instructional resources and facilities to be added to this list. Two of the 34 respondents did not respond to this item. Five (5) or 14.7% of the 34 respondents suggested (collectively) that the following instructional resources and facilities should be added to the IFLA-SET list:

- access to groupware based distance education resources (for example, WebCT);
- improvement in access (especially speed) to the Internet;
- adequate e-journal access and/or document delivery especially in the light of current journal (print version) rationalisations due to financial constraints; and
- access to a range of library and information services for fieldwork and in-service training purposes.

With the exception of the last suggestion, the other suggestions seem to be implied in the IFLA-SET list of instructional resources and facilities. However, these respondents probably felt that there was a need to stipulate certain specific aspects of library, IT and Internet resources that were important for instructional purposes. One of the five respondents suggested that human resources should be added to the IFLA-SET list of instructional resources and facilities. This respondent made the interesting suggestion that the human resource requirement should be met by highly qualified, theoretically inclined academics and not by “librarians made over as teachers” who tend to cling to practical skills.

4.3.3.9 **IFLA-SET guidelines (academic staff)**

IFLA-SET has also suggested that academic staff teaching in a first level professional LIS programme should be sufficient to accomplish programme objectives. Furthermore, the qualification of each full-time faculty member should include:

- ❖ Research-based competence in the designated teaching areas;
- ❖ Technological proficiency;
- ❖ Effectiveness in teaching;
- ❖ A sustained record of scholarship; and
- ❖ Active participation in appropriate professional associations.

(International Federation of Library Associations and Institutions 2000: 3)

All educators surveyed had been asked if they think all these requirements are necessary in the South African context. One of the 34 respondents did not respond to this item. Three or 8.8% of the 34 respondents did not think that all these requirements are necessary in the South African context. Unfortunately only one of the three respondents provided an explanation for this response:

- sometimes departments use part-time staff who may not have all the requirements suggested by IFLA-SET.

It should be noted that IFLA-SET suggests these requirements for full-time academic staff. The majority (30 or 88.2%) of the 34 respondents indicated that all the requirements suggested by IFLA-SET are necessary in the South African context and collectively provided the following explanations for this response with some of these respondents qualifying their responses:

- all the IFLA-SET requirements support and enhance teaching and learning (15 or 50% of the 30 respondents provided explanations to this effect);
- these requirements ensure that one is informed and kept abreast with developments in the field which is necessary to teach with authority;
- these are all important components for teaching in a technician-based programme as well (this explanation was provided by a respondent from a technikon LIS department that offers a paraprofessional LIS programme);
- all these requirements make for good, gifted and inspirational role models, however, newer academic staff might not yet have a sustained record of scholarship, but should have a record of scholarship;
- these requirements are essential for effective teaching and research, and allows one to lead students by example;
- all IFLA-SET requirements are essential except for participation in professional associations which is perhaps not as essential as the others and difficult, time-wise, for an academic to maintain (at least five or 16.7% of the 30 respondents made comments to this effect);
- while these requirements are essential characteristics of an academic, it is also necessary for an academic to have a good contextual understanding of LIS as a whole in addition to competence in a particular research and teaching area;
- while these requirements are fundamental in any meaningful academic dispensation in a tertiary institution, participation in community services and projects is also very important;
- while it is necessary to demonstrate competence in all these areas in order to inspire students and to encourage them to achieve their potential, members of an academic team will display competence in these areas in varying degrees as they may choose to specialise in particular areas; and

- in an ideal world all these requirements are essential, however, in practice there have to be compromises or choices have to be made, for example, at times when there is a disjuncture between teaching and research interests.

These responses reveal that while the majority of the educator respondents indicated that all the requirements regarding academic staff suggested by IFLA-SET are necessary in the South African context, there are often practical and other reasons why all the requirements may not be met at the same time by individuals.

Co-ordinators or programme leaders of first level LIS programmes or heads of LIS departments or programmes had been asked if they are confident that full-time academic staff teaching in their departments or programmes meet the requirements suggested by IFLA-SET. There was a total of 17 responses to this item. It should be noted that only co-ordinators or programme leaders of first level LIS programmes or heads of LIS departments or programmes had been required to respond to this item. There was at least one response to this item from each of the 13 library and/or information science (LIS) departments or programmes in South Africa that offer first level LIS qualifications. Twelve (12) or 70.6% of the 17 respondents indicated that they were confident that full-time academic staff teaching in their departments or programmes meet the requirements suggested by IFLA-SET and collectively provided the following explanations for this response:

- all academic staff members meet the suggested criteria;
- all academic staff members have a minimum of a master's degree;
- academic staff are active in professional development and have track records of research and publication;
- professional development opportunities are being provided and encouraged and academic staff are constantly up-grading skills and attending workshops;
- one of the junior lecturers is still in his orientation and learning phase but meets the requirements regarding qualifications;
- regular staff and performance reviews suggest that academic staff meet the suggested requirements; and

- academic staff meet the stated requirements but at varying levels.

Five (5) or 29.4% of the 17 respondents indicated that they were not confident that full-time academic staff teaching in their departments or programmes, meet the requirements suggested by IFLA-SET and collectively provided the following explanations for this response:

- some academic staff are too narrowly library focused (they do not see the broad information picture) and are too skills oriented;
- inadequate number of academic staff and insufficient teaching materials have placed too heavy a burden on existing academic staff with the result that there is more teaching and very little research;
- while the information field is developing rapidly and requires constant re-skilling and the acquisition of new knowledge from the related fields of management, IT and the social sciences, the resource base of small departments make it difficult to adapt fast enough to the new developments (this response comes from a respondent from one of the LIS departments that have gone the route of training graduates for the wider information market by offering a three-year bachelor's degree with a major in Information Science); and
- academic staff need to pay attention to research and technological competencies.

The positive as well as the negative comments regarding whether academic staff meet the requirements suggested by IFLA-SET come from both universities and technikons as well as from historically advantaged and historically disadvantaged institutions.

4.3.3.10 **Differences between technikon and university LIS qualifications**

Respondents had been asked to identify, with the help of outlines of LIS programmes provided (Appendix C), differences between the technikon ND: LIS plus B.Tech.(LIS) (four years) and the university bachelor's degree plus Post-graduate

Diploma or the four-year university degree (four years). Twenty-six (26) or 76.5% of the 34 respondents responded to this item and collectively identified the following differences:

- technikon qualifications emphasise 'hands-on' vocational skills while university qualifications emphasise theoretical knowledge;
- university qualifications offer in-depth general education through a variety of general academic or discipline-based subjects while technikon qualifications generally do not;
- technikon qualifications seem to focus more on Library Science while university qualifications focus more on Information Science;
- technikon qualifications are too practical and low level skills-based and do not really provide professional education but rather are technician qualifications and thus cannot be awarded degree status; university qualifications are a combination of theory and practical aspects but with an emphasis on the former and a four-year university qualification can be a truly professional qualification;
- technikon qualifications have an extended period of experiential learning which is a distinct plus, while university qualifications do not;
- while there is very little difference in the scope of the syllabus between technikon and university qualifications, there is a major difference in the depth of analysis or treatment of specific topics;
- the entry requirements for the two types of qualifications are different, that is, the technikon ND: LIS and subsequent B.Tech.(LIS) do not require a matriculation exemption as university qualifications do, which leads to the assumption that students who enter technikons are not expected to deal with highly rigorous and academic or research oriented work (such as in-depth general education) as students who enter universities are expected to;
- the theoretical detail and basis of LIS professional subjects is less taught at technikons than at universities where the curriculum is inclined to go into details of why things are done the way they are done; with the technikons on

the other hand, depth of study (amount of theory) is influenced largely by the need for this knowledge in practice;

- with university qualifications students are expected to major in particular fields thus gaining in-depth knowledge of the field in addition to LIS services techniques; with technikon qualifications the focus is largely on LIS services techniques; and
- as a result of the difference in orientation between the two types of qualifications (that is, technikon qualifications are more practically oriented and university qualifications are more conceptually and academically oriented), there are differences in the calibre and orientation of students who enter each of these two types of programmes and differences in the orientation of academic staff who teach in each of these two types of programmes (for example, differences in qualifications, research output, teaching methodologies employed).

Eleven (11) or 42.3% of the 26 respondents identified the first difference listed above as a major difference between technikon and university LIS qualifications, that is, the practical orientation of technikon qualifications and the academic or theoretical orientation of university qualifications. The presence of general education in university LIS education and training and its general absence in technikon LIS education and training also seems to come to the fore in the differences cited above.

4.3.3.11 **Similarities between technikon and university LIS qualifications**

Respondents had been asked to identify, with the aid of the outlines of LIS programmes provided (Appendix C), similarities between the technikon ND: LIS plus B.Tech.(LIS) (four years) and the university bachelor's degree plus Post-graduate Diploma or the four-year university degree (four years). Twenty-four (24) or 70.6% of the 34 respondents responded to this item and collectively identified the following similarities:

- both technikon and university programmes teach the fundamentals of librarianship;
- both technikon and university programmes focus on core LIS competencies;
- both technikon and university programmes cover basic professional skills and applications such as cataloguing, classification, indexing and application of information and communication technologies (ICT);
- coverage of areas and topics in the two types of programmes seems to be the same, however, the context in which these are studied is different, that is, the technikon programmes are based in a more practical context and the university programmes in a more theoretical context;
- content covered in both the types of programmes seem to be the same, however, there might be differences in depth of coverage and emphases;
- strong similarities in LIS content between the technikon and university programmes, however, the scholarly content between the two will differ greatly with the university programmes having a variety of general academic or discipline-based subjects;
- both technikon and university programmes focus on the library as an institution and on the bibliographic description and management of information carrying records (this similarity was cited by a respondent from one of the LIS departments that has dropped the librarianship aspect of their education and training and now focuses on the wider information market by offering a three-year bachelor's degree with a major in Information Science);
- Library Science and Information Science components are covered in both technikon and university programmes; and
- both technikon and university qualifications are vocational qualifications and have a market orientation in that they prepare products for a particular market.

Fifteen (15) or 62.5% of the 24 responses to this item identified either one of the first two similarities listed above as a major similarity between technikon and university LIS qualifications. However, respondents are careful to point out that while there are

similarities in coverage of areas and topics, there are differences in orientation (theoretical and practical) and in depth of coverage and emphases.

4.3.3.12 **Articulation**

The researcher, in the context of this study, uses the term ‘articulation’ in the following way: Articulation is seen as the ability of an education system to allow students pursuing similar education and training programmes to move laterally and vertically between different types of institutions offering similar and/or different level programmes in the same field(s).

Respondents had been asked if they see any possibilities for articulation between university and technikon LIS education and training, that is, upon attainment of one qualification, for example, ND: LIS or B.Tech.(LIS), and moving to another type of institution for a higher qualification. Two of the 34 respondents did not respond to this item. Three or 8.8% of the 34 respondents indicated that they did not see any possibilities for this type of articulation between university and technikon LIS education and training and together provided the following explanations for this response:

- the entrance levels of higher-level programmes of the two types of institutions do not correspond;
- this type of articulation is not possible with the way programmes at the two types of institutions are currently structured; and
- this type of articulation is difficult because offerings at tertiary institutions in the field of library and/or information science are diverse, for example, there are those who focus on information organisation and retrieval in library type environments and those that have broken with the library paradigm (note again, that this explanation comes from a respondent from one of the LIS departments that now focuses on the wider information market by offering a three-year bachelor’s degree with a major in Information Science).

The majority (29 or 85.3%) of the 34 respondents indicated that they saw possibilities for this type of articulation between university and technikon LIS education and training and collectively provided the following explanations for how this articulation may be possible:

- the B.Tech.(LIS) graduate should be able to move into the university honours programme but would have to take relevant courses to meet the admission requirements for the honours programme (at least seven or 24.1% of the 29 respondents provided explanations to this effect);
- the NQF levels should facilitate this type of articulation;
- this matter is in the process of being formalised in the work of the newly formed SGB for the LIS sector;
- qualifications (registered with SAQA) should be evaluated according to their exit level outcomes as stipulated in the NQF and this will enable institutions to recognise qualifications obtained from other institutions;
- on assessment a student should be able to move from the ND: LIS to the university Post-graduate Diploma in Library and/or Information Science or from the B.Tech.(LIS) to the university honours programme but might have to concurrently take some under-graduate general education modules to fill certain gaps;
- it needs to be clearly identified how best technikon students can pick-up on courses that would bring them to the university degree level as defined by the government Act that is currently guiding advancement to higher qualifications at universities;
- as technikons and universities train in very similar areas, articulation between these two types of institutions should be a matter of course;
- credits can be transferred and subjects not done can be taken to meet the entrance requirements for the next level of qualification;
- in terms of SAQA rules the B.Tech.(LIS) involves four years of tertiary education and training which makes it equivalent to the four-year B.Bibl. and therefore B.Tech.(LIS) graduates should be allowed access into the B.Bibl.(Hons.) programme;

- if the standards of the programmes at the two types of institutions are the same there should be no problem in moving from a technikon to a higher qualification at a university;
- long term there is a need to harmonise curricula between the two types of institutions in order to allow for this type of articulation;
- mechanisms for such articulation should be explored;
- this is a vital component of a changing educational system, but, is not as yet clearly defined; and
- if there are more similarities than differences between the programmes at the two types of institutions, then the differences should be identified and eliminated and this would make this type of articulation possible.

Respondents had also been asked if they see any possibilities for articulation of programmes between a university and a technikon while a student is in the midst of doing an LIS programme, for example, between a B.Tech.(LIS) and a B.Bibl. Five or 14.7% of the 34 respondents did not respond to this item. Nine or 26.5% of the 34 respondents indicated that they did not see any possibilities for this type of articulation between a university and a technikon and collectively provided the following explanations for this response:

- the entry requirements at the under-graduate level are different at the two types of institutions, that is, the university requires a matriculation exemption while the technikon does not;
- courses at the under-graduate level are structured differently at the two types of institutions and trying to accommodate differences here would be difficult;
- LIS subjects might be compatible but not others;
- this type of articulation might not be possible in the present circumstances but once the SGB in the LIS sector is up and running and clear credit ratings have been determined, one might be able to do this; and
- this type of articulation is complicated as the technikon programme lacks general education subjects that the university programmes have.

Twenty (20) or 58.8% of the 34 respondents indicated that they saw possibilities for this type of articulation between a university and a technikon and together provided the following explanations for how this articulation may be possible:

- one would need to study the contents of the syllabus carefully before credit for specific modules may be granted;
- this type of articulation is possible if university and technikon LIS departments rationalise among themselves and develop a common syllabus;
- this type of articulation would be possible once the SGB in the LIS sector is up and running and clear credit ratings have been determined;
- the focus should be on exit level outcomes and where necessary the student may be advised to take up additional modules to fit in with the new institution's curriculum requirements;
- while this type of articulation requires identifying modules that are similar and equivalent, the transferability of credits must also take into account teaching materials used and the quality of teaching received (for example, calibre of lecturers) and current rules governing transferability of credits between institutions (for example, the current rules are that a student has to take 60% of the modules in a particular institution in order for the qualification to be awarded by that institution which means that for a four-year degree a student must be registered in an institution for at least two-years and cannot transfer from another institution more than 30% of the modules of the major subjects in order for the new institution to award the qualification);
- technikons and universities train in similar areas and therefore this type of articulation should not be a problem;
- this type of articulation is possible as long as the underlying paradigm or vision of the subject field is the same between the two types of institutions and as long as there is agreement between the two types of institutions about what should be taught at what level;
- LIS subjects may be credited but not the supplementary subjects;
- this type of articulation is possible through closer co-operation between university and technikon LIS departments;

- if the technical aspects and hands-on practicals are completed at the technikon, the academic subjects can be completed at the university;
- such articulation is essential in view of SAQA recommendations and there must be flexibility in entrance requirements and exit points in order to ensure such articulation; and
- this type of articulation is possible by accrediting modules that are similar in content to modules in the new programme, as is currently done between universities.

It seems that relatively more respondents support articulation between universities and technikons after completion of a qualification than articulation between the two types of institutions when a student is in the midst of doing an LIS programme. Articulation in the latter case seems to be more problematic as reflected in some of the explanations forwarded by respondents. It is also evident that there are inconsistencies among respondents in the way they view articulation from technikons (upon attainment of one qualification) to universities (to do a further qualification). Articulation the other way around (that is, from universities to technikons) does not seem to be an issue probably because it rarely occurs. There also seems to be much uncertainty as to how to deal with articulation between technikons and universities. At the same time respondents have also emphasised the importance of this issue especially in the light of current educational transformations in South Africa to bring about a more equitable and integrated education system.

4.3.3.13 **General education**

The literature has emphasised the importance of general education in higher education. The literature has also stressed the centrality of general education to professional LIS education and training. Respondents had been asked if they think general education as provided by a university bachelor's degree is essential in the provision of an efficient LIS service. Three or 8.8% of the 34 respondents did not respond to this item. Seven or 20.6% of the 34 respondents indicated that they did not

think that general education as provided by a university bachelor's degree is essential in the provision of an efficient LIS service and together provided the following explanations for this response:

- the student still needs specialised professional education;
- I am a good librarian and lecturer yet I do not have a bachelor's degree;
- most professional library skills do not require a liberal arts education;
- an efficient LIS service relies heavily on staff's mental alertness and versatility;
- general education is not essential for LIS services work but useful background for cataloguing and classification; and
- general education can also be accommodated in a professional LIS diploma or non-university LIS degree.

These responses come from respondents from both university as well as technikon LIS departments or programmes. The majority (24 or 70.6%) of the 34 respondents indicated that they believed that general education as provided by a university bachelor's degree is essential in the provision of an efficient LIS service and collectively provided the following explanations for this response:

- information workers without a broad knowledge base are not effective;
- general education provides the individual with a broad general knowledge and develops critical thinking;
- generic conceptual, analytical and problem-solving skills are intellectual skills that are developed through theoretical and comparative study that should be a part of a bachelor's degree programme and these are skills and values that are required for professional leadership in a library;
- general education gives the student a wide knowledge background which is necessary in LIS services;
- information work not only requires 'techniques' but also general and subject knowledge to deal with in-depth consultation and guidance;
- human and social sciences and even natural sciences provide a good foundation on which professional education may be built;

- general education is perhaps desirable rather than essential as it provides subject knowledge which is useful;
- general education provides a context for the rationale of the library procedures, that is, a context for the logical basis for these procedures;
- leaders of most enterprises are university graduates;
- liberal education can only enhance the capabilities of the information worker;
- general education is not essential but perhaps necessary in certain contexts, for example, in academic libraries where other discipline or subject knowledge is important for effective service;
- one needs a background in subject work to be able to appreciate the information needs of the particular community being served;
- while general education provides the student with a broad foundation of knowledge, specific LIS education and training still needs to be provided;
- general education allows individuals to go beyond routine processes and make critical decisions and lead institutions;
- general education provides a better understanding of the information world and helps professionals to guide users; and
- research support provided by LIS services professionals requires general and specialised education.

The majority of educators surveyed, like the majority of employers surveyed, believe that general education as provided by a university bachelor's degree is essential in the provision of an efficient LIS service in most contexts. These findings concur with the literature that has stressed the importance of general education in professional LIS education and training.

As with employers surveyed, the majority of educators surveyed come from university backgrounds. Eleven out of the 13 LIS departments or programmes surveyed are university LIS departments or programmes. Here too, as in the case of the employers surveyed, this could impact on the way educators surveyed view the importance of general education in the provision of LIS services. There is also a fair

amount of overlap in the explanations provided by educators and employers surveyed for why they believe general education is or is not essential in the provision of an efficient LIS service. It is also important to point out that both educators and employers surveyed identified general education offered by universities as an important difference between university and technician LIS qualifications.

Respondents had also been asked if they think there are specific professional LIS services job titles for which a general education is essential. Two of the 34 respondents did not respond to this item. Seven or 20.6% of the 34 respondents indicated that they did not think that there are specific professional LIS services job titles for which a general education is essential and collectively provided the following explanations for this response:

- all librarians should have a good general education;
- general education benefits all librarian-related duties;
- library and information science education and training provides the individual with the skills that are needed to execute all professional LIS services tasks (that is, general education is not essential); and
- while general education is useful for subject librarians and subject analysts, such posts, especially in special libraries, often require advanced knowledge in the field.

The majority (25 or 73.5%) of the 34 respondents indicated that they believe that there are specific professional LIS job titles for which a general education is essential and collectively provided the following explanations for this response:

- the nature of the job of managing information requires general education;
- a subject librarian should have subject knowledge that is usually provided by general education or even by a further degree in the subject;
- indexers, classifiers and reference librarians in a particular subject should have in-depth knowledge in the subject concerned and this knowledge can come from general education;

- general education is necessary for professional leadership positions in a library;
- a library manager should have general education in order to be able to grasp the philosophies and trends in the different disciplines;
- while subject knowledge may be an advantage for certain posts it is not essential;
- all librarians need general education but designations such as subject librarians need in-depth subject knowledge which can be attained through general education via a bachelor's degree;
- it depends on the nature of the general education, for example, a humanities background in a science library would not necessarily add value to the service but a person with such a background in an academic library would be most useful; and
- general education provides a clear distinction between professional and paraprofessional posts in a library and differentiates level of expertise, responsibility and accountability in these posts.

The majority of educators surveyed, like the majority of employers surveyed, believe that there are specific professional LIS services job titles for which a general education is essential. There also seems to be a fair amount of overlap in the explanations forwarded by educator and employer respondents to this item. As already pointed out, the literature too has stressed the importance of general education in professional LIS education and training.

Respondents had also been asked if they think there are specific professional LIS services job titles for which a general education is not essential. Five or 14.7% of the 34 respondents did not respond to this item. Seventeen (17) or 50% of the 34 respondents indicated that all professional LIS services job titles require general education and explanations forwarded for this response were very similar to many of those given above by respondents who believe that general education as provided by a university bachelor's degree is essential in the provision of an efficient LIS service. In

fact many of the respondents here referred the researcher to their responses to this latter item. Twelve (12) or 35.3% of the 34 respondents indicated that they believe that there are specific professional LIS job titles for which a general education is not essential and together provided the following explanations for this response:

- it is possible for a person without a general education to work in any LIS services context, however, there are certain LIS services contexts in which general education would be useful and ultimately result in a more efficient and effective service;
- general education is not essential for any of the professional LIS services tasks as library and information science education and training provides the individual with the skills that are needed to execute all professional LIS services tasks;
- there are some technical procedures, for example accessioning, periodicals administration, basic cataloguing and up-loading materials to a web-server, that can be done with only specific training for the job, that is, general education is not required;
- it depends on the level of reasoning and judgement that is required for the position;
- it will depend on the job description (there are some positions that are more technical and thus do not require general education and could be designated paraprofessional jobs);
- technical service jobs, such as descriptive and copy cataloguing, do not require general education;
- systems librarian and issue desk management posts do not require general education; and
- circulation (document delivery) department posts do not require general education.

Again, there seems to be an interesting link between the findings here and in the survey of employers which reveals that, like the educators, more of the employers believe that general education is essential for all professional LIS job titles. Those

employers who argue that there are specific professional LIS services job titles for which a general education is not essential, very much like educators who believe this, cited job titles incorporating circulation functions, descriptive and copy cataloguing and various technical services as possible LIS services job titles for which general education is not essential. Both educators and employers have cited systems librarian (person in charge of the library's IT system), because of its IT orientation, as a job title for which general education is not required.

4.3.3.14 **General education and technikon library and/or information science education and training**

Respondents had been asked if they think it is necessary for technikon library and/or information science (LIS) education and training, specifically the ND: LIS to incorporate general education. Six or 17.6% of the 34 respondents did not respond to this item. Ten (10) or 29.4% of the 34 respondents indicated that they did not think that it is necessary for technikon LIS education and training to incorporate general education and together provided the following explanations for this response:

- the focus in the ND: LIS is on application and this is a programme designed for technicians and is meant to produce paraprofessional staff who will occupy support positions in LIS services (60% of the 10 respondents provided explanations to this effect);
- if a sound broad base of knowledge is provided during secondary schooling then there is no need for the ND: LIS to incorporate general education;
- if technikon LIS education and training incorporates general education, then what would differentiate it from university LIS education and training; and
- it would depend on the objectives of the programme.

Eighteen (18) or 52.9% (the majority, albeit a relatively small majority) of the 34 respondents indicated that they believe that it is necessary for technikon LIS education and training to incorporate general education and collectively provided the following explanations for this response:

- general education provides the basis of good service and enhances depth of service (33.3% of the 18 respondents provided explanations to this effect);
- for equivalence of qualifications and articulation possibilities to allow for horizontal and vertical interchange between technikon and university LIS programmes (22.2% of the 18 respondents provided explanations to this effect);
- limited general education would be useful to provide some broad knowledge base and for further education and training and for articulation to higher levels of the profession; extended general education is not necessary as technikons train for paraprofessional positions;
- general education would open students' minds thus making diplomates more employable and better human resource material;
- general education should be incorporated into technikon LIS education and training as this is currently the main shortcoming of the ND: LIS; and
- students should be allowed the opportunity to choose general education subjects in which they might want to later specialise in as subject librarians.

Those respondents who had indicated that they believe that it is necessary for technikon LIS education and training to incorporate general education had been asked how they would suggest general education be incorporated into the ND: LIS programme. There were 12 responses to this item, that is, 12 or 66.7% of the 18 respondents responded to this item. Their responses included:

- subjects such as Human Studies, Literature Studies, Psychology in Organisations and the languages in the ND: LIS programme presently go some way in addressing this issue of general education (33.3% of the 12 respondents, all from technikon LIS departments or programmes, provided responses to this effect);
- first and second years of the ND: LIS programme should incorporate general education;
- by integrating general education into the ND: LIS programme;

- if it is impossible to incorporate general education at a technikon then the qualification should be scrapped;
- subjects such as history, sociology and science should be brought into the ND: LIS programme and also more philosophy of Information Science and IT and its influence on society should be brought in;
- the ND: LIS has enough non-librarianship courses to provide general education, provided that these subjects are appropriately presented and studied, as the outcomes expected from general education do not come from the study of a particular subject field but rather from the academic rigour with which the subject is presented by the lecturer;
- general education at the technikon level should encompass those areas that are covered by the NQF, that is, basic communication skills (written and oral), problem solving and critical thinking; in-depth general education involving subject-based knowledge is not necessary at this level, instead more LIS services skills are necessary (this response comes from the respondent who indicated that limited general education should be incorporated into the ND: LIS); and
- general education should be incorporated in to the ND: LIS programme through special bibliographic review projects in particular subjects or disciplines.

4.3.3.15 **Professional and paraprofessional job titles in LIS services**

Respondents had been asked if there should be clearly defined professional and paraprofessional job titles in LIS services. Eight or 23.5% of the 34 respondents did not respond to this item. Eleven (11) or 32.4% of the 34 respondents indicated that there should not be clearly defined professional and paraprofessional job titles in LIS services and together provided the following reasons for this response:

- because employees must be allowed to grow and develop and get involved in further education (formal as well as non-formal) to achieve a certain level of professionalism, seniority and expertise;

- this preoccupation with professional and paraprofessional job titles is meaningless as employers tend to design job descriptions and designate titles to these job descriptions in response to their need; furthermore, titles are meaningless as generic titles unless the LIS profession requires registration and professionals have to meet stringent requirements for admission to different levels of 'professional' status;
- because libraries differ in size and level of bureaucracy (hierarchy), libraries should decide their own hierarchical titles;
- this would limit the opportunities of the graduate in a flexible job market;
- there should be no distinction in employment status between the technikon B.Tech.(LIS) graduate and the university LIS graduate with a Post-graduate Diploma or a B.Bibl. or equivalent four-year university degree (this response comes from a respondent from a university LIS department); and
- all LIS services professionals should be able to do the full array of LIS services tasks.

A slightly larger figure of 15 or 44.1% of the 34 respondents indicated that there should be clearly defined professional and paraprofessional job titles in LIS services. When these respondents had been asked what types of posts should constitute professional job titles, the following responses were received:

- librarian (including senior categories of librarians);
- subject librarian;
- reference librarian;
- chief librarian and other library management posts;
- classifier;
- indexer;
- information specialist;
- information manager/knowledge manager;
- archivist/records manager;
- systems librarian;
- cataloguer;

- assistant librarian; and
- acquisitions librarian.

A few respondents did not stipulate specific posts that should constitute professional job titles but rather made general statements about the types of posts that should constitute professional job titles:

- posts that require a high level of intellectual and professional decision-making, for example, posts that involve the design and analysis of systems and policies;
- posts that require a solid knowledge of professional LIS practices;
- posts for which a professional LIS qualification is necessary; and
- professional job titles should be designated in terms of managerial responsibilities where appropriate and in terms of the level of specialist knowledge required to do the job where that is appropriate; thus titles such as ‘...manager’, ‘...specialist’ and ‘...librarian’ are in order here if the knowledge in terms of experience and/or education can be reasonably specified.

When these respondents had been asked to indicate what types of posts should constitute paraprofessional job titles, the following responses were received:

- library assistant (including senior categories of library assistant);
- library technician;
- information technician;
- assistant librarian;
- systems librarian;
- cataloguer;
- serials/periodicals librarian;
- circulation librarian; and
- acquisitions librarian.

A few respondents did not stipulate specific posts that should constitute paraprofessional job titles but rather made general statements about the types of posts that should constitute paraprofessional job titles:

- posts that involve work relating to the implementation of existing systems, operations and techniques with a professional at hand to whom more demanding problems may be referred;
- posts that require knowledge of LIS services procedures at a less advanced level;
- posts for which a paraprofessional LIS qualification is necessary; and
- paraprofessional job titles should be reserved for people who have the knowledge and experience required to do a specialised technical job and the title ‘technician’ is an appropriate one here.

There seem to be similarities in the findings here and in the findings in the survey of employers, in which a larger number of employers surveyed, like educators surveyed, believe that there should be clearly defined professional and paraprofessional job titles in LIS services. Employers surveyed provided more detailed lists of posts that should constitute professional and paraprofessional job titles than educators and this is expected for the simple reason that employers have a better knowledge of actual posts in the LIS services work environment than educators. However, there are strong similarities in these two sets of lists of posts. Discussion on this will be pursued in Chapter 5.

4.3.3.16 **Three-year bachelors’ degrees**

A recent trend at some South African universities that has already been mentioned several times in this chapter has been to offer a three-year bachelor’s degree with a major or specialising in Information Science or some information related area. Details regarding this new type of qualification have already been provided in section 4.3.1.21.

Educators from LIS departments or programmes that offer such three-year bachelors' degrees had been asked what job market these programmes are aimed at. There were responses to items relating to these three-year bachelors' degrees from educators from all five LIS departments that have indicated (refer to *Table 4.17*) that they offer such three-year bachelors' degrees, that is, LIS departments at the University of Pretoria, the University of South Africa, the University of Zululand, the University of Stellenbosch and the Rand Afrikaans University. Explanations from these educators as to what job market these programmes are aimed at included:

- the general job market;
- broad-based library and information services but not necessarily library services;
- information work environments in general (more than libraries but including libraries, for example, preparing knowledge managers, archivists, database and web-page designers and information professionals in publishing and in tourism);
- information and knowledge management of digital information in public and private sector organisations;
- the corporate environment (preparing information managers, knowledge managers and competitive intelligence professionals); and
- the market for people (such as information managers, information system developers, infopreneurs, information trainers, information consultants) who manage (increasingly digital) information in the corporate environment and whose skills include electronic publishing (web-sites, multi-media products), information organisation and retrieval (for search engines, portal and corporate intranets), building and using databases for decision support and competitive intelligence, specifying user requirements and developing user-system interfaces using object-oriented programming, and training end-users.

It is evident from these responses that many of the institutions offering these new three-year bachelors' degrees see the wider information market, including libraries, as the market at which these programmes are aimed. This is an attempt to capture the

emerging information markets by preparing graduates for the wider information market and not just libraries. There are, however, one or two institutions that are targeting more specifically the corporate information environment.

Educators from LIS departments or programmes that offer three-year bachelors' degrees had also been asked, based primarily on the content of the programmes and secondarily on the time taken for completion (three years instead of the traditional four years), at which level (professional, paraprofessional or any other level) of library and/or information service entry point they would locate the three-year bachelor's degree graduates. Respondents had been provided with examples of these three-year programmes (refer to the appendix of the Questionnaire for Educators, Appendix C). There was a total of eight responses to this item, out of a possible 10, from respondents from LIS departments or programmes that offer the new three-year bachelors' degrees. Five of the eight respondents indicated that they would locate the three-year bachelor's degree graduates at the professional level and their explanations for their responses included:

- these are the new information professionals, the people in demand in the knowledge society;
- students who enrol for these programmes are aiming at professional positions and once they graduate they should be placed in professional entry-level posts;
- the content and outcomes of these programmes are at the same intellectual level as the traditional four-year LIS programmes (while some traditional library oriented content such as cataloguing, classification and collection development are not covered or covered very superficially, other areas such as knowledge management, information organisation and information technology are done in detail); and
- our curriculum is not relevant to library and information services and focuses on management aspects of information in the corporate environment (this response comes from a respondent from one of the LIS departments that have broken with the library paradigm and now focus on preparing three-year graduates specifically for the corporate information environment).

One of the eight respondents indicated that the three-year bachelor's degree graduates would be located at the paraprofessional level and provided the following explanation for this response:

- if graduates of this three-year programme have aspirations towards a career in library and information services, then the professional component (fourth year) should be added on (this response comes from a respondent from one of the LIS departments that are offering the new three-year qualifications alongside the traditional four-year LIS qualifications).

Two of the eight respondents selected the 'other' option when asked at which level (professional, paraprofessional or any other level) of library and/or information service entry point they would locate the three-year bachelor's degree graduates. One of the two respondents specified this 'other' level as being a junior position within an LIS service and explained that with exposure and experience these graduates should be able to work their way up to paraprofessional and professional positions in the LIS service. The second respondent specified the 'other' level as being a corporate level and explained that "the corporate world in which our graduates work usually do not distinguish between professional and paraprofessional job titles". This latter response comes from a respondent from one of the LIS departments that has broken with the library paradigm and now focuses on preparing three-year graduates specifically for the corporate information environment.

These varied explanations forwarded by respondents, even among those from the same department offering the new three-year programme, suggests some uncertainty regarding at which level of LIS service entry point they would locate the three-year bachelor's degree graduates.

Educators from LIS departments or programmes that offer three-year bachelor's degrees had also been asked if the three-year bachelor's degree graduates can be admitted to senior LIS programmes such as honours and masters' programmes to

which usually persons with the Post-graduate Diploma in Library and/or Information Science and B.Bibl. or equivalent four-year degree qualifications are admitted. There was a total of eight responses to this item, out of a possible 10, from respondents from LIS departments or programmes that offer the new three-year bachelor's degrees. One of the eight respondents indicated that these three-year bachelors' degree graduates cannot be admitted to senior LIS programmes such as honours and masters' programmes for the following reason:

- it would be unfair on the four-year graduate professionals and belittles the profession; a separate path to senior LIS programmes should be possible for these three-year bachelor's degree graduates.

Seven of the eight respondents indicated that these three-year bachelor's degree graduates can be admitted to senior LIS programmes such as honours and masters' programmes and collectively provided the following explanations for this response:

- the three-year bachelor's degree qualifications are good enough for graduates to be admitted to senior LIS programmes; RPL (recognition of prior learning) can be used in assessment of candidates and candidates can be asked to do some extra modules;
- the student with the three-year bachelor's degree meets the credit points criteria to be admitted into a senior programme;
- in all other three-year degree programmes subjects taken as majors give access to honours and masters' programmes; it must be remembered that the fourth year of four-year degree programmes is not at the post-graduate level but at the same level as the third year and that the original idea of a four-year LIS degree was to make provision for approximately the same content and mix of subjects provided by a three-year bachelor's degree plus a one-year post-graduate diploma;
- provided that the three-year bachelor's degree has provided thorough LIS education and training;
- if the student has obtained high enough marks in the Information Science major; and

- it depends on the kind of post-graduate programme that the student wishes to pursue and its market orientation.

It is interesting to observe that even though seven out of the eight respondents have indicated that the three-year bachelor's degree graduates can be admitted to senior LIS programmes such as honours and masters' programmes, many of the explanations provided seem to indicate that some sort of assessment is required or even the possibility of doing extra modules in order for a three-year bachelor's degree graduate to articulate vertically into a senior LIS programme. Interestingly, this is very much in line with the view of the respondent who indicated that these three-year bachelor's degree graduates cannot be admitted to senior LIS programmes such as honours and masters' programmes and suggested that a separate path to senior LIS programmes should be followed by the three-year bachelor's degree graduates.

The main focus of this chapter has been the presentation of findings based on analysis of the data collected for the study via the three data gathering instruments. Findings were presented for each of the three data gathering instruments, that is, each of the three questionnaires. Findings were presented in terms of themes identified by the researcher as being areas that the data gathering instruments were used to gather data on. Where appropriate, findings were represented by means of graphs and tables. In other places, especially with regard to responses to open-ended items in the data gathering instruments, the narrative form was used to present findings. While some cursory comments are made in this chapter, more detailed discussion with respect to issues relating to the research questions and objectives of the study are done in Chapter 5 where on the basis of these discussions, conclusions are drawn and recommendations are made.

ⁱ Modules are also referred to in some institutions as subjects or courses or instructional offerings. Hereafter in this chapter the term ‘modules’ is used for purposes of brevity and consistency.

ⁱⁱ Respondents had been asked what types of posts and job tasks should constitute professional and paraprofessional job titles because sometimes it is difficult to make out from just the title of a post what a particular job involves. Unfortunately respondents provided posts only and not job tasks. Hence the researcher worked with what information was provided here.

ⁱⁱⁱ Bell (2002) reports on a study of the role of the Information Studies programme at the University of Natal in South African LIS education and training.

CHAPTER 5:

Summary of Findings, Conclusions and Recommendations

5.1 Introduction

The previous chapter presented findings based on analysis of the data collected from the survey of the views of past students, employers and educators in the LIS field regarding first level LIS qualifications offered at South African universities and technikons and their relevance to the LIS services work environment. This chapter discusses the main findings of the study in relation to the research questions and the objectives of the study and also draws conclusions and makes recommendations based on these discussions.

5.2 Summary by research objectives and research questions

Each research objective and its corresponding research question/s will be discussed in terms of the main findings based on analysis of the data collected via all three data gathering instruments, which relate to them.

5.2.1 Research objective 1: Clarification on type of first level education and training required for given posts in LIS services

Research objective 1: To provide clarity to those currently employed in library and/or information services, those who wish to become library and/or information professionals and those who want to employ library and/or information professionals as to what type of first level education and training is required for given posts in the LIS services work environment.

Two research questions had been generated in order to meet this research objective:

Research question a:

What are the job titles and key job tasks or functions of posts in the library and/or information services sector that require knowledge and skills that are generally imparted by first level library and/or information science qualifications?

Research question b:

To what extent do the various first level library and/or information science programmes currently being offered in South Africa meet the job tasks or functions of posts that require the knowledge and skills that are generally imparted by first level library and/or information science qualifications?

The following discussions are relevant to **Research question a:**

5.2.1.1 **ND: LIS qualification**

While a variety of job titles were forwarded by employers with respect to staff members holding the technikon ND: LIS, the job titles library assistant and senior library assistant seem to be most common in LIS services among these staff members. Findings in the survey of past students concur with findings in the survey of employers that the job titles library assistant and senior library assistant are common among staff members holding the paraprofessional ND: LIS qualification.

Job titles and contents (Appendix E) reveal that there seems to be much inconsistency in the use of terminology in the job titles assigned to individuals holding this level of qualification as evident in the use of job titles such as library assistant, cataloguing assistant, assistant librarian and junior librarian. In some cases the terminology used seem to be determined by the LIS services context in which the job is located. In other cases it might simply be a reflection of preference for the use of certain job titles or perhaps the need to follow job titles used by the parent organisation of which the library or information service is a part. The literature does indicate that this inconsistency in the use of terminology in job titles at this level of qualification is a

general trend. It is interesting to note, and as pointed out by Van Aswegen (1997), that the job title library technician that is in common use for this level of qualification in other parts of the world, does not seem to be used in South Africa. Instead the term 'library assistant' seems to be in common use. The title of library assistant has been commonly used in the United Kingdom. Its use in South Africa may well be due to the historical professional association between South Africa and the United Kingdom. It is also interesting to observe from the key functions in Appendix E that in keeping with observations in the international literature, in South Africa too, titles such as assistant librarian and variations of this terminology, for example, junior librarian, seem to refer largely to supportⁱ positions and not professional positions in LIS services. However, in the United Kingdom, assistant librarian job titles refer to professional posts at entry level.

Job contents reflected in Appendix E reveal that the ND: LIS is being utilised by many LIS services employers as a qualification requirement for support positions, especially that of senior library assistant. This concurs with the finding that the job titles library assistant and senior library assistant seem to be common in LIS services for staff members holding a ND: LIS. These job contents also reveal that this qualification requirement seems to be particularly the case in the circulation function of LIS services. The dominance of technical aspects of the service seems to necessitate the need for technically oriented paraprofessional staff and the ND: LIS, as revealed in the literature, provides very much this type of education and training. Furthermore, a key function under senior library assistant job titles in Appendix E seems to be supervising staff and processes in the section. The literature does reveal that one of the many tasks generally assigned to paraprofessionals is supervision of a branch, department or section of a library system. Job contents presented in Appendix E suggest that some LIS services employers view the ND: LIS as appropriate education and training for the supervisory function in LIS services and this is very much in keeping with international trends regarding LIS services paraprofessionals.

Both employers and educators surveyed indicated that the posts of library assistant, senior library assistant (including other titles used to designate senior categories of library assistants) and library technician are largely the types of posts that should

constitute paraprofessional job titles. Furthermore employers surveyed have indicated that they would place individuals holding the ND: LIS in paraprofessional entry-level posts thus reaffirming that the ND: LIS has become established as a paraprofessional LIS qualification in South Africa as revealed by the literature and by job contents provided by employers (Appendix E).

It is evident from these findings that while in the early years of the ND: LIS diplomates experienced problems in LIS services employers seeing this qualification as a paraprofessional qualification as reported by Van Aswegen (1997), over the years it seems to have become utilised by many LIS services employers as a qualification requirement for what seems to have become known as paraprofessional positions in LIS services, and especially that of senior library assistant. However, the researcher would like to point out that the problem of a lack of post descriptions to accommodate the qualification pointed out by Van Aswegen (1997), still persists. Employers seem to have gradually recognised the value of this qualification in particular areas of LIS services, for example in the circulation function as pointed out above, but still have made no attempt to create career ladders in LIS service staff structures for paraprofessionals. Instead they continue to use designations such as library assistant and senior library assistant for which the qualification requirement has traditionally been a matriculation senior certificate. This not only keeps salary structures for a particular category of staff who have received specific LIS education and training that distinguishes them from clerical staff, at the lowest levels in the organisation, but also demonstrates a lack of clarity among LIS services employers that the ND: LIS is a paraprofessional qualification with a distinct career path for the holder of the qualification. According to the literature LIS professional bodies in the United States of America, Canada and Australia officially recognise library technicians as LIS paraprofessional staff with a distinct career structure in LIS services. While LIASA is not a statutory body it can still, by similar action, influence the way employers view this category of staff. Educators too have a role to play here and it is the researcher's opinion that educators involved with the ND: LIS programme have not sufficiently marketed the qualification among employers as one that requires holders of the qualification to be ranked below librarians but above clerical employees in, for example a three-tier hierarchical structure. ND: LIS diplomates too can help

themselves out of this situation by organising themselves into structures such as paraprofessional interest groups, staff associations or even unions that can be used to lobby for career ladders in LIS services as their counterparts have done with much success in the United States of America, Canada and especially Australia.

5.2.1.2 **B.Tech.(LIS) qualification**

While the literature points out that there is uncertainty regarding whether the B.Tech.(LIS) should be regarded as a professional LIS qualification, findings in the survey of employers point to a trend towards the acceptance by some LIS services employers of the B.Tech.(LIS) as a professional LIS qualification warranting the designation of the job title librarian. However, the large percentage of employers surveyed (67.1%) that indicated that they did not have staff members with the B.Tech.(LIS) qualification points to the uncertainty referred to in the literature regarding this qualification. It would seem that many LIS services employers are not employing these graduates, as they are unsure about how to view this four-year technikon degree qualification *vis-à-vis* the four-year university LIS qualifications. Job contents of job titles held by staff members with first level LIS qualifications provided by employers (Appendix E) reveal just two or three instances where the B.Tech.(LIS) is made a qualification requirement for specific posts in LIS services. However, where the B.Tech.(LIS) is provided as a qualification requirement, it is done so together with the four-year university LIS qualifications. Appendix E also reveals that the two or three LIS services that indicated this qualification as a requirement for a professional position appear to be technikon libraries that could possibly be supporting technikon qualifications. It remains to be seen if this spreads to other types of LIS services such as university libraries and public libraries. However, when LIS services employers surveyed were asked in what type of entry-level post they would place individuals holding the B.Tech.(LIS), the majority of respondents indicated that they would place them in professional entry-level posts. The researcher views uncertainties regarding the B.Tech.(LIS) reflected in the literature and uncertainties and inconsistencies regarding this qualification in the findings among employers surveyed, as being the result of a general lack of clarity, especially among employers, on the issue that professionalism and paraprofessionalism are parallel

career paths. Each has its own career progression and the latter is not a step in the direction of professionalism. The researcher believes that because of the lack of career ladders for paraprofessionals in LIS services as mentioned above, B.Tech.(LIS) graduates are pushing for professional status and equivalence of the B.Tech.(LIS) qualification with the four-year university qualifications which are, in terms of the literature and international trends, established professional LIS qualifications. In fact the survey of past students has revealed that this lack of career progression for holders of paraprofessional qualifications is a reason given for not pursuing further studies in the LIS field and for general disillusionment with the profession and hence plans to make a career change.

Again, the researcher would like to point out that educators need to play a more concerted part in making both employers and students themselves aware that LIS professionalism and paraprofessionalism are alternative career directions. Possibly once employers are clear about this they would begin to see the value of establishing career progressions for paraprofessionals in their staff structures. As pointed out in Chapter 2, Wilson and Hermanson (1998) make the useful suggestion that students, while still at LIS education and training institutions, should be taught the fundamental difference between professionalism and paraprofessionalism in the LIS services context, so that in the work environment both would be aware of each other's strength and roles and the nature of their working relationship. While it is important that students should be made to understand that paraprofessionalism is not a step in the direction of professionalism but should have its own career progression, it is also important that an education system should allow for articulation between professionalism and paraprofessionalism giving one the opportunity to satisfy certain requirements before 'crossing over' to LIS professionalism if one so desires.

5.2.1.3 Post-graduate Diploma in Library and/or Information Science and the B.Bibl. (or equivalent four-year university degree) qualifications

A significant number of the staff members in LIS services holding the Post-graduate Diploma in Library and/or Information Science or the B.Bibl. (or equivalent four-year

university degree) seem to be assigned professional posts with job titles such as librarian or senior categories of librarian, subject librarian, and archivist in LIS services. This is not surprising as these are, according to the literature, established professional LIS qualifications in South Africa. Findings in the survey of past students confirm this. Both employer and educator respondents indicated that posts of librarian (including subject librarian, reference librarian and senior categories of librarians such as senior librarian, branch librarian and head librarian or director) are largely the types of posts that should constitute professional job titles.

5.2.1.4 **Downshifting of LIS services roles**

Both employer and educator respondents indicated job titles such as acquisitions librarian, circulation librarian, serials/periodicals librarian, cataloguer and systems librarian as professional and paraprofessional job titles, suggesting that these could be professional or paraprofessional job titles in LIS services. According to the literature these are precisely some of the areas that have traditionally been the domain of professional librarians but have now come to be dominated by individuals holding paraprofessional qualifications. Appendix E (job contents received from employers) too reveals this. For example, an observation from Appendix E is that while cataloguing (including descriptive and subject aspects of cataloguing) is generally seen as a professional LIS services function, aspects of it are done by support staff in LIS services. For example, copy cataloguing that essentially involves downloading cataloguing details from a centralised database is commonly done by library assistants and senior library assistants. This is in keeping with a general trend reflected in the literature where many tasks traditionally reserved for professionals, that is, librarians, are now being done by paraprofessionals. This is particularly so in those areas of librarianship and information work, for example cataloguing, circulation, acquisitions and periodicals that have become more technical with less need for the interpretive skills of a librarian. It is perhaps this downshifting and resulting blurring of roles, also referred to in the literature, which leads some employer and educator respondents to argue that there should not be clearly defined professional and paraprofessional job titles in LIS services. The majority of employers and educators surveyed, however, indicated that there should be clearly defined professional and paraprofessional job

titles on LIS services. The researcher would like to suggest that employers should use this natural downshifting of roles, which according to the literature seems to occur as librarianship and information work advances in its professionalism and also as a result of forces such as advancing technology, as opportunities to establish paraprofessional post designations and career progressions in their organisations.

5.2.1.5 **Key job tasks or functions of staff holding first level LIS qualifications**

The survey of past students revealed that certain job tasks or functions are more common among respondents holding certain first level LIS qualifications.

Information provision seems to be a job task performed by respondents holding any of the four first level LIS qualifications, including paraprofessional and professional LIS qualifications. The level and complexity of information provision perhaps would be different among individuals holding these different types of first level LIS qualifications. Administrative tasks feature significantly as a job task among respondents who hold the ND: LIS and the B.Tech.(LIS). The literature reviewed does suggest that administrative tasks are commonly assigned to individuals who hold paraprofessional qualifications.

Cataloguing and/or classifying features significantly among the job tasks of respondents holding the established professional LIS qualifications (that is, the Post-graduate Diploma and the B.Bibl. or equivalent four-year university degree) as well as the paraprofessional LIS qualification (that is, the ND: LIS). This confirms findings in the survey of employers that while cataloguing and classifying (that is, the descriptive and subject aspects of cataloguing) are generally seen in LIS services as a professional LIS services function, aspects of it (for example descriptive cataloguing and copy cataloguing) are done by support staff, such as, library assistants and senior library assistants, in LIS services.

Findings in the survey of employers that the circulation function of LIS services (of which issuing and receiving of material is a part) is largely carried out by individuals

holding the ND: LIS, is revealed in the survey of past students as well where it was evident that issuing and receiving of material is a job task that features significantly among the job tasks of respondents who hold the ND: LIS.

Collection development and managing staff seem to be professional job tasks carried out largely by respondents holding the established professional LIS qualifications (that is, the Post-graduate Diploma and the B.Bibl. or equivalent four-year university degree). This is also revealed in Appendix E that presents the job contents of job titles generally held by individuals with first level LIS qualifications, which has been provided by employers surveyed.

These findings reveal the general trends regarding job tasks or functions in LIS services that are carried out by individuals holding the four first level LIS qualifications that are the focus of this study.

The preceding discussions have highlighted, and/or raised issues relating to, the job titles and key job tasks or functions of posts that require knowledge and skills imparted by first level LIS qualifications, that is, **Research question a**.

The following discussions are relevant to **Research question b** (To what extent do the various first level LIS programmes currently being offered in South Africa meet the job tasks or functions of posts that require the knowledge and skills that are generally imparted by first level LIS qualifications?):

The researcher would like to point out at the outset that while respondents were asked to rate the relevance of the modules of first level LIS programmes in terms of their current job environments on the basis of the title of the module and a brief description of it, there are shortcomings here. For example, there is no clear indication as to the depth of knowledge and skills that are taught as well the availability of resources such as library, physical and IT resources to support the teaching, and the competence of the academic staff involved in the programme. While these crucial factors were difficult to reflect in the surveys carried out for the current study, the researcher hopes that the ratings provided would provide some indication of the relevance of the

various modules to the LIS services work environment and hence reveal certain trends. It should be noted that while the discussions that follow mention titles of modules only, brief descriptions of the content of these modules are available in the relevant tables in Chapter 4 as well as in Appendices A, B and C.

5.2.1.6 **ND: LIS programme**

Many of the modules in the ND: LIS are considered relevant to the LIS services work environment by both employers and past students surveyed as they received percentage relevance in excess of 85%. However, both employers and past students believed that the African languages and Afrikaans are not as relevant to their work environments compared to English. With both employers and past students, User Studies I, II and III and Library and Information Technology III received relatively low percentage relevance possibly pointing to the fact that these modules are aimed at specialised LIS services environments (such as the public library in the case of User Studies and the digitised information environment in the case of Library and Information Technology III) rather than the LIS services environment in general. It should be noted that respondents had been asked to rate these modules in terms of their current LIS services work environments and thus those modules relevant to the LIS services environment in general are likely to receive higher percentage relevance than those aimed at specialised LIS services environments. Human Studies and Literature Studies received relatively low percentage relevance from both employers and past students. These respondents possibly view these modules as being too general and thus somewhat peripheral to the LIS services work environment. While employers considered Psychology in Organisations as not being very relevant to the LIS services work environment, past students considered it to be useful. Perhaps LIS services staff 'working on the ground' and being more intimately involved in the delivery of service feel the benefits of this module more than heads, deputies and senior managers in LIS services who are more involved in management of LIS services. Surprisingly, Experiential Learning, which employers considered to be very relevant to the LIS services work environment, received relatively low percentage relevance from past students. It is possible that some of the past students surveyed had been employed in LIS services at the time when they had been registered for the ND:

LIS programme and therefore believe that this module was not essential in their cases. Some employers and past students surveyed suggested that the African languages and Afrikaans should be made optional modules in the programme and that Human Studies, Literature Studies and User Studies are not relevant to the programme implying that they should be removed. The researcher would like to argue that the latter suggestions would be unwise because while these modules as well as Psychology in Organisations may be considered by some not to be directly relevant to LIS services, they are very useful in providing some sort of general education. General education, which according to the literature and many respondents in this study is essential in the provision of an efficient LIS service, is generally lacking in technikon LIS qualifications.

5.2.1.7 **B.Tech.(LIS) programme**

Both employers and past students surveyed considered modules such as Research Methodology, Information Retrieval IV, Library and Information Practice IV and Information Management as being relevant to the LIS services work environment. Modules such as Library and Information Technology IV, Readership for Semi-literates, Children's Library Practice and Book Conservation, that are aimed at specialised library or information environments, received relatively low percentage relevance from both employers and past students. Philosophy of Library and Information Science did not fair well in the percentage relevance among both employers and past students probably because of the academic nature of the module and its lack of practical relevance to the library and information environment. Again the researcher would like to point out the value of such a module as general education, the lack of which is generally viewed as a shortcoming of technikon LIS qualifications. Some past student respondents, quite appropriately, have called for those modules not relevant to the LIS services environment in general but to more specialised environments and ideal for the elective aspects of an academic programme, to be optional.

5.2.1.8 **Post-graduate Diploma in Library and/or Information Science programmes**

Most of the modules included in the Post-graduate Diploma programmes at South African universities show a high percentage relevance thus demonstrating that they are considered by employers and past students surveyed to be very relevant to the LIS services work environment. One or two modules, again those that are aimed at specialised LIS services environments as well as those of a more general nature and possibly not directly relevant to the LIS services work environment, received relatively lower percentage relevance. These modules included Information and Communication Technologies (generally aimed at a digitised information environment), Records and Documents Management and Information Delivery Systems (modules aimed at more specialised information environments). Information Society that did not receive as high a percentage relevance, especially from employers surveyed, in comparison to other modules in the Post-graduate Diploma programmes, is more of a general module and perhaps not directly relevant to the LIS services work environment and may be considered to be somewhat peripheral to the LIS services work environment.

5.2.1.9 **B.Bibl. (or equivalent four-year university degree) programmes**

The general trend that revealed itself in the rating of modules by employers and past students surveyed in the other three LIS programmes prevailed with the B.Bibl. or equivalent four-year university programmes as well. Modules that are applicable to all types of library and information environments were generally considered to be very relevant by employers and past students and received relatively high percentage relevance. Modules of a more specialist nature, such as Educational Information Services in Developing Countries, Children and Youth Library Services, Advanced Classification, Special Cataloguing, Publishing, Printing and the Book Trade and Compilation of Bibliographies, received relatively lower percentage relevance. Once again, modules of a more general nature and not directly relevant to the LIS services work environment, such as Applied Records Studies, were not considered by respondents to be very relevant and hence received relatively lower percentage

relevance. It is interesting to note that Fieldwork or Experiential Learning generally received relatively high percentage relevance, especially from employers, in all the LIS programmes in which it is offered. It is also interesting to note that modules in all of these LIS programmes that involve cataloguing and classification, received relatively high percentage relevance. Ocholla (2001: 166), in his tracer study of University of Zululand graduates, also found that cataloguing and classification, which are sometimes considered by LIS educators to be “irrelevant” because of easy access to centralised cataloguing services, are considered to be relevant because they provide knowledge on analysis and synthesis of information as well as knowledge of the nature and structure of a given information collection. Both employers and past students surveyed found some of the modules of a specialist nature to be too specialised for a first level LIS programme. Such modules are ideal for the elective aspects of an academic programme and possibly are offered as such in education and training institutions.

5.2.1.10 **Suggestions for aspects to be added to first level LIS programmes**

Both employers and past students surveyed have provided numerous suggestions for aspects that should be included in first level LIS programmes. These suggestions are detailed in Chapter 4. Many of these aspects are probably embedded in the modules currently being offered as part of first level LIS programmes. However, employers and past students surveyed probably believe that these aspects should feature more prominently in the programme. There is a significant amount of overlap in the suggestions made by employers and past students regarding aspects that should be included in first level LIS programmes. For example, budgeting and human resources management have been suggested by both employers and past students surveyed, as being aspects that should receive attention in the various first level LIS programmes. A strong pre-occupation of recent diplomates and graduates with the IT aspects of LIS services is revealed in the suggestion by a number of recent graduates for greater focus on IT aspects such as database management, web design, Internet searching, digital libraries and systems management in especially university based LIS programmes. Perhaps recent graduates are responding to what some employers have cited in findings as a weakness of the university based LIS qualifications, that is, a

general lack of IT skills training and not enough emphasis on electronic developments. Information and/or knowledge management has been suggested by both employers and past students surveyed as also being aspects that should receive attention in the various first level LIS programmes revealing the growing importance of these areas in the work place generally and in the LIS services work environment in particular. There have been requests by past students surveyed for an increase in the university based LIS programmes in the amount of time spent doing fieldwork or experiential learning which generally in these programmes is much shorter than in the technikon based LIS programmes by virtue of the different focus (practical focus and theoretical focus) of each of these types of programmes.

These and the many other suggestions made by employers, past students as well as educators for knowledge and skills to be included in first level LIS programmes that have been presented in Chapter 4, raises the issue of whether it is possible for LIS departments or programmes to provide education and training at a functional level in all these areas. Only a certain amount of knowledge and skills can be provided in a duration of three or four years. The rest, in the researcher's opinion, should come from continuing education either provided by employers or taken up on the initiative of the individual in the interest of self-development. Dougherty (1996) has argued that LIS schools and departments cannot be expected to shoulder the entire responsibility for preparing graduates for the work place because the intellectual demands are too diverse and the time available to educators too short. Employers must share this responsibility by providing practical training to supplement the philosophical and theoretical base provided especially by university LIS education and training. LIS services employers are well placed to provide this aspect of the training, as it is in the work place that the latest trends and developments, especially information technology developments, manifest themselves.

5.2.1.11 **Qualifications and current posts**

Findings reveal that with the university as well as with the technikon based LIS qualifications, while there are a large number of recent diplomates and graduates whose current posts are commensurate with their qualifications, there are still

significant numbers of those whose current posts are not commensurate with their qualifications and a range of reasons have been forwarded for the latter. In this context, of particular relevance is the finding in the survey of employers that a significant percentage of LIS services employers indicated that availability of a post was a factor that determined appointment to posts assigned for persons with first level LIS qualifications. Therefore it is not uncommon to find in LIS services organisations individuals with first level LIS qualifications but not occupying positions commensurate with these qualifications. At the same time it should be acknowledged that in some instances this lack of compatibility between post and qualification may be attributed to complaints by especially technikon diplomates in this study as well as in Mhlongo's (1998) study, that knowledge and skills acquired from the ND: LIS are not being utilised in their current posts. The researcher believes that this is largely so because employers generally have not established paraprofessional post designations in their staff structures. Diplomates are being utilised in existing library assistant and senior library assistant posts, which are also used for clerical assistants.

5.2.1.12 **Instructional resources and facilities**

Comments on the lack of or inadequate instructional resources and facilities came from educator respondents from both universities and technikons. However, these comments did come largely from respondents from historically disadvantaged institutions such as the University of the Transkei, the University of the North, the University of Zululand, the University of Fort Hare, the University of the Western Cape and M.L. Sultan Technikon (now DIT). Those educators who claimed that their departments or programmes had all the instructional resources and facilities suggested by IFLA-SET are generally from the historically advantaged institutions such as the University of Natal, the University of Stellenbosch, the University of Cape Town, the University of Pretoria and the Rand Afrikaans University. There seems to be a fair amount of commonality in the findings among educators and past students regarding education and training resources. Past students who had indicated that education and training resources such as library resources, IT resources and physical resources had not been adequate, also came from both universities and technikons but largely from historically disadvantaged institutions.

5.2.1.13 Further studies among past students

While the majority of the past students surveyed who are currently engaged in further studies are registered for programmes in the library and information science discipline, a significant number of these respondents are registered for programmes outside this discipline, particularly in commerce or business related disciplines. This as well as comments made by past students (for example, “I have no ambition in my present profession” or “I am looking for something more challenging to study”) gives one the disturbing impression that some recent graduates and diplomates do not seem to feel very inspired and challenged in the LIS profession and are therefore opting for other fields. A further observation is that some recent graduates and diplomates are pursuing further studies in information related fields, for example, information management or information technology, but outside traditional library and/or information science departments. This is perhaps a reflection of the observation made in the literature that the information revolution along with the technology that is used to organise, process and disseminate information, has broken the monopoly that LIS departments or schools once had over the training of information professionals. Increasingly computer science departments and business related academic departments are moving into this arena. In fact the literature suggests that LIS departments’ competition for students is likely to come from the latter and possible signs of this competition is reflected in findings in this study (*Table 4.13*) where there are a significant number of recent LIS diplomates and graduates opting for commerce or business related fields. *Table 4.13* also reflects the new trend at some universities of offering a three-year bachelor’s degree with information related majors in an attempt to capture the emerging information markets by preparing graduates for the wider information field and not necessarily libraries. Some recent diplomates and graduates seem to be opting for these academic programmes, for example, B.A.(Information Science) or B.Com.(Informatics), in their further studies.

5.2.1.14 Three-year bachelors' degrees

Although the majority of educators from the LIS departments that offer the new three-year bachelors' degrees indicated that they would locate these degree graduates at the professional level entry point in LIS services, the varied explanations forwarded by educators, even among those from the same department, suggest some degree of uncertainty regarding at which level of LIS service entry point they would locate the graduates. One supposes this is expected of any programme that is new on the market and still needs to establish itself more firmly. Employers surveyed also showed some uncertainty about the new three-year degree qualifications. Findings revealed that while the majority of LIS services employers seemed to have no problem with accepting the new three-year degree qualification as a first level professional LIS qualification, the relatively low majority figure and the fact that a significant number of respondents did not commit themselves to a response to this item are possible indications of uncertainty among some LIS service employers regarding the new three-year degree qualification.

The researcher would also like to point out that in terms of the higher education qualifications structure proposed by the New Academic Policy discussed in Chapter 2, these new three-year degree qualifications would be pegged at NQF level 7 which is one level lower than the traditional four-year LIS qualifications (both the degree and the Post-graduate Diploma) which would be pegged at NQF level 8, PG1. Horton (1990: 10), in a structure that he proposed for the LIS profession in South Africa, also placed graduates with a "three-year degree with a strong major in information studies" at a level lower than those graduates with the four-year LIS qualifications. The researcher personally believes that because the new three-year qualification is a general degree aiming at the wider information market, it is likely to be largely lacking in specific professional LIS components which an individual may have to complete in a fourth year before being accepted at a professional level entry point in LIS services. It remains to be seen how the difference in NQF levels together with the current uncertainty among both educators and employers regarding the new three-year degree qualifications explained above, would pan out in the future in terms of level of entry point in LIS services in particular. This is not likely to be an issue for graduates

entering the corporate world because, as pointed out by one of the educator respondents, the corporate world does not distinguish between professional and paraprofessional job titles. However, the traditional LIS services sector does, as revealed in responses by both educators and employers on the issue of whether there should be clearly defined professional and paraprofessional job titles in LIS services.

The preceding discussions have highlighted trends and issues in the findings of this study that reflect on the extent to which the various first level LIS programmes currently being offered in South Africa meet the job tasks or functions of posts that require the knowledge and skills that are generally imparted by first level LIS qualifications, that is, **Research question b**. There seems to be much commonality between employers and past students surveyed in the relevance ratings of modules in first level LIS programmes. A significant trend that emerges here is that modules that are applicable to all types of library and information environments are generally considered to be very relevant by employers and past students surveyed. This is a good indication that these are the types of modules that should form the 'core' of first level LIS programmes. Modules of a more specialist nature received relatively lower percentage relevance from both employers and past students with some of them suggesting that these should be made optional. This is an indication that such specialist modules are ideal for the elective aspects of first level LIS programmes giving students the opportunity to 'specialise' as the basic qualification level, which according to the literature, has been encouraged in LIS education and training in South Africa. Modules of a more general nature and not directly relevant to the LIS services work environment were not considered by employers and past students to be very relevant. The researcher would like to be critical of both employers and past students here in that they take too narrow a view of these modules and fail to see their value in general education. Yet according to findings in this study, the majority of employers believe general education is essential for the provision of an efficient LIS service as it enhances delivery of service, makes people critical thinkers and benefits the LIS service in various other ways. The researcher thus believes that some employers and past students are being unwise in their suggestions for these general modules to be removed from or made optional in first level LIS programmes, especially technikon programmes which, unlike university LIS programmes, are

generally lacking in general education. The researcher would also like to reiterate that while many suggestions have been forthcoming from employers, past students and even educators themselves for knowledge and skills that should be included in first level LIS programmes, it is not possible for LIS departments or programmes to accommodate all of these. Many of these knowledge and skills areas would need to be picked up through continuing education by the individual as well as through employer-led training programmes.

5.2.2 **Research objective 2: Clarification on job specifications to be targeted in the academic curriculum**

Research objective 2: To provide clarity to library and/or information science educators regarding what job specifications they should be targeting in the academic curriculum, especially in view of the seemingly blurred demarcation between university and technikon library and/or information science education.

The same two research questions that had been generated to meet **Research objective 1** were required to meet **Research objective 2**. Discussions relevant to these research questions, that is, **Research question a** and **Research question b** are relevant here as well. These discussions have highlighted trends and raised issues regarding findings in the current study that relate to both university and technikon first level LIS programmes and qualifications. The researcher hopes that these discussions have clarified the distinction between university (professional) and technikon (paraprofessional) first level LIS qualifications so that LIS educators from each of these two types of higher educational institutions, that is, universities and technikons, have more clarity on the type of job specifications they should be targeting in their academic curricula. Other discussions that follow in this chapter, especially those under **Research objective 5**, should offer further clarification on the relationship between university and technikon LIS education and training.

Research objective 3: To inform curriculum development and particularly the identification of what constitutes or should constitute the ‘core’ in library and/or information science education and training.

Two research questions had been generated in order to meet this research objective:

Research question c:

What constitutes or should constitute the ‘core’ in library and/or information science education and training?

Research question d:

Is having a broad base of knowledge (general education) essential in the provision of an efficient library and/or information service and if so, what are possible ways in which technician library and/or information science curricula, which lack broad based education, can incorporate this?

The following discussion is relevant to **Research question c:**

The literature reviewed on the ‘core’ in library and/or information science education and training, is clear that it is difficult to be precise about what exactly constitutes or should constitute the core in LIS education and training as core educational components will differ from one educational programme to the next. The literature suggests that this is so largely because this core is a continuously evolving one as the information environment that LIS education and training programmes need to respond to, is in a state of continuous flux particularly with the growing impact of the demands of the information society. Notwithstanding these difficulties in defining the ‘core’ there have been attempts over the years to identify important knowledge and skill components to serve as guidelines to education and training providers, one of these being the IFLA-SET guidelines.

With regard to the present study there are findings that are relevant to the issue of the 'core' in LIS education and training. Both employers and past students generally considered modules in first level LIS education and training programmes that are applicable to all types of library and information environments to be relevant to their current LIS services work environments and gave them relatively high percentage relevance. These are likely to be the types of modules that would be appropriate as part of the 'core' of an LIS education and training programme. Modules aimed at specialised LIS services environments, and ideal to be offered as electives in LIS programmes, generally received relatively lower percentage relevance from employers and past students surveyed. Fieldwork or Experiential Learning generally received a relatively high percentage relevance from employers and past students in all the LIS programmes in which it is offered and is thus also likely to be appropriate as part of the 'core' of an LIS education and training programme. Employers and past students also made various suggestions regarding aspects (knowledge and skills) relevant to the LIS services work environment that should be included in the various first level LIS programmes. While there is much overlap among employers and past students in the suggestions made there is also a fair amount of diversity in the suggestions, demonstrating the point suggested in the literature that it is difficult to be precise about what exactly constitutes the core in LIS education and training as core educational components will differ from one educational programme to the next depending on the need/s the programmes are responding to.

A large majority of employers surveyed believed that South African LIS programmes leading to first level professional qualifications should include all the core elements suggested by the IFLA-SET guidelines. The majority of educators surveyed indicated that all of the core elements from the IFLA-SET guidelines are currently offered as part of programmes leading to first level LIS qualifications offered by their departments. These findings do suggest that the core elements suggested in the IFLA-SET guidelines are an adequate representation of LIS elements that should form the core library and/or information science curriculum for a first level LIS qualification.

However, a significant number of educators made various suggestions regarding LIS elements that should also be included as part of the core library and/or information science curriculum for a first level LIS qualification. While some of these suggestions are possibly implied in the core elements listed in the IFLA-SET guidelines, there are some that are of a more specialist nature and might be argued by some to be more suitable as elective aspects of a first level LIS programme. It is interesting to note among the many suggestions for inclusion in the core library and/or information science curriculum for a first level LIS qualification, aspects that pertain specifically to the South African context. The literature on LIS education and training in South Africa does emphasise the need for LIS education and training curricula to take cognisance of the local and African context.

The diversity of areas suggested by educators for inclusion in the core library and/or information science curriculum for a first level LIS qualification as well as the differences among LIS departments or programmes in aspects of the core curriculum suggested by IFLA-SET that are currently included in their first level LIS programmes (detailed in Chapter 4), reiterates a general point made in the literature that it is difficult to be precise about what exactly constitutes the core in LIS education and training as core educational components will differ from one educational programme to the next.

The literature (Grotzinger 1986; Robbins 1990; Stieg 1992) as well as the findings in this study relevant to the issue of the 'core' in LIS education and training suggest that while it is possible to identify certain knowledge and skill components as being appropriate to be part of the core library and/or information science curriculum for a first level LIS qualification, it is difficult to be precise about what exactly constitutes or should constitute the core in library and/or information science education and training. This core is a continuously evolving one as the information environment that LIS education and training programmes need to respond to, is in a state of continuous flux. It is precisely for this reason that it is appropriate that IFLA-SET has put forward its **core** curriculum as 'guidelines' and not as standards or something that is prescribed.

The following discussions are relevant to **Research question d** (Is having a broad base of knowledge (general education) essential in the provision of an efficient library and/or information service and if so, what are possible ways in which technikon library and/or information science curricula, which lack broad based education, can incorporate this?):

The literature has stressed the importance of general education in professional LIS education and training. For example, Wilson and Hermanson (1998: 482) point out that the principles of librarianship only have full professional significance when they are related to a broad background knowledge of other subject matter as a librarian does not perform any of his/her skills in a vacuum. The researcher needs to point out that general education is provided by any university bachelor's degree (including one in the sciences and other disciplines) and incorporates specific subject and discipline based knowledge. There seems to be a misconception, especially among some employers, that general education is provided by a general arts degree only.

Findings in the current study reveal that the majority of employers and educators surveyed believe that general education as provided by a university bachelor's degree is essential in the provision of an efficient LIS service in most contexts. These findings correlate with the literature, referred to above, that has stressed the importance of general education in professional LIS education and training and in fact many employers and educators surveyed have made comments (detailed in Chapter 4) similar to that by Wilson and Hermanson mentioned above. It is also important to point out that both educators and employers surveyed have identified general education offered by universities as an important difference between university and technikon LIS qualifications. For some employer and educator respondents it is general education that distinguishes between professional and paraprofessional posts in an LIS service, as one educator respondent pointed out: "General education provides a clear distinction between professional and paraprofessional posts in a library and differentiates level of expertise, responsibility and accountability in these posts".

The literature too identifies this distinction. For example, Froehlich (1998: 447) points out that what seems to be the basis of discrimination between professionals and paraprofessionals is that of being trained with a strong intellectual component. That is, professionals, having secured a bachelor's degree, have acquired and mastered the intellectual technologies that form the value-added processes of information work such as classification, abstracting, indexing and accessing appropriate resources.

Paraprofessional LIS education and training, which takes place in most countries, including South Africa, at the under-graduate level is, as discussed in Chapter 2, generally located in non-university higher education institutions, and generally lacks the broad base of knowledge or general education afforded by a bachelor's degree. According to the literature as well as some employer and educator respondents in this study, it is general education that differentiates between professionals and paraprofessionals in LIS services. The researcher would like to extend this a bit further by arguing that it is general education and the conceptual level at which professional LIS education and training is provided as opposed to the practical, hands-on level at which paraprofessional LIS education and training is provided, that differentiates between these two types of education and training.

Findings in the current study reveal that the majority of employers and educators surveyed believe that general education is essential for all professional LIS services job titles. Those employers and educators who argue that there are specific professional LIS services job titles for which a general education is not essential cited job titles incorporating circulation functions, descriptive and copy cataloguing and various technical services as possible LIS services job titles for which general education is not essential. Both educators and employers have also cited systems librarian as a job title for which general education is not required. It is job titles in precisely these areas that both employer and educator respondents have suggested could be professional or paraprofessional job titles in LIS services. These are precisely some of the areas that have traditionally been the domain of professional librarians but have now, through a process of downshifting, have come to be dominated by individuals holding paraprofessional qualifications, largely because of the technical nature of the job tasks involved. And it is these areas that the researcher

earlier suggested that employers should use as opportunities to create career progressions for paraprofessionals in their staff structures.

In essence then, the literature as well as findings in the current study do point out that general education is essential in the provision of an efficient LIS service in general, and in the provision of a professional LIS service in particular and that for many (including the researcher) it is the point of departure between the education and training of professionals and that of paraprofessionals in LIS services. This argument further confirms that the four-year technikon B.Tech.(LIS) over which there has been much uncertainty as to whether it may be considered a professional LIS qualification like the two four-year university LIS qualifications, may not be regarded as a professional LIS qualification. The B.Tech.(LIS), unlike the Post-graduate Diploma in Library and/or Information Science and the B.Bibl. or equivalent four-year university degree, lacks general education.

With regard to the second part of **Research question d** (that is, if general education is essential in the provision of an efficient LIS service what are possible ways in which technikon LIS curricula, which lack broad based education, can incorporate this?), the following discussions are relevant:

The majority, albeit a relatively small majority, of educators surveyed indicated that they think that it is necessary for technikon LIS education and training to incorporate general education and many of these educators indicated that their reason for this response is that general education provides the basis of good service and enhances depth of service. However, a significant number of educators surveyed, although not a majority, indicated that they did not think that it is necessary for technikon LIS education and training to incorporate general education as the focus in technikon education and training, particularly the ND: LIS, is on application and this is a programme designed for technicians and is meant to produce paraprofessional staff who will occupy support positions in LIS services. One of these educator respondents went further and, in the researcher's view quite legitimately, commented that if technikon LIS education and training incorporates general education, then what would differentiate it from university LIS education and training. This comment is especially

significant in the light of the fact that the current study has identified general education as an important difference between university and technikon LIS education and training or between professional and paraprofessional LIS education and training.

Those educator respondents who had indicated that they believe that it is necessary for technikon LIS education and training, particularly the ND: LIS, to incorporate general education made a number of suggestions (detailed in Chapter 4), including the incorporation of scholarly subjects, regarding how general education may be incorporated into the ND: LIS programme. The inclusion of scholarly subjects into the technikon curriculum, in the researcher's opinion, leads to a duplication of programmes, that is, universities and technikon offering the same type of programmes which goes against the essential purpose of technikon education and training *vis-à-vis* university education and training discussed in Chapter 2. That is, that the former focuses on technological and vocational preparation and the latter on general education and lifelong learning. Educator respondents from the technikons have indicated that subjects such as Human Studies, Literature Studies, Psychology in Organisations and the languages in the ND: LIS programme presently go some way in addressing this issue of general education. This means that technikon LIS education has some general education but not to the extent of university LIS education and training. It was for this reason that the researcher argued earlier that it is unwise for employers and past students surveyed to ask for these modules to be removed from the ND: LIS programme because while they may not have direct relevance to the LIS services work environment, they have value as general education. The researcher would like to suggest that perhaps in view of the essential difference between university and technikon education and training mentioned above, it is only limited general education that is necessary in the technikon curriculum. In terms of the purpose of technikon education and training, in-depth general education is not necessary.

This view of the researcher is supported by a university educator respondent who believes that limited general education and not extended general education should be incorporated into technikon LIS education and training as technikons train for paraprofessional positions. The respondent suggests that this general education should

be limited to basic written and oral communication skills, problem solving and critical thinking as in-depth general education involving subject-based knowledge is not necessary at the paraprofessional level of training.

In fact the SAILIS *Proposed guidelines for undergraduate career training* (South African Institute for Librarianship and Information Science 1996: 2) point out that while what it terms “general development” is achieved in university LIS programmes through scholarly subjects, at technikons “general development forms part of the professional courses taught, that are structured in such a way that candidates are shaped into innovative thinkers and practitioners...”. This does concur with the view of the researcher and some educator respondents expressed above that suggest there is a place for general education in both university and technikon LIS education and training but at different levels or to different extents and this is crucial in view of the basic purposes of university and technikon education and training. In fact one of the employer respondents warns, in another context, that “aspirations of matching university curricula may cause technikon qualifications to end up falling between the cracks”, lacking both their current competitive advantage of technical competence and a broad-based education.

The Education Ministry too in its *National plan for higher education* comments that technikons are currently contributing significantly to the human resource needs of the country. For this reason the Ministry proposes to continue to recognise, in the short-to-medium term, “the broad function and mission of universities and technikons as two types of institutions offering different kinds of higher education programmes” (Ministry of Education 2001: 51-52). This position of the Ministry reiterates the need to maintain the two different types of education and training, that is, both university and technikon education and training each have a role to play in the South African economy and society. In essence then, this study would like to argue that in view of the difference in purposes of university and technikon education and training, it is not necessary to incorporate extended or in-depth general education into the technikon LIS curriculum but limited general education is necessary as general education does enhance delivery of service in the LIS services environment.

Thus the discussions relevant to the issues the 'core' in LIS education and training (**Research question c**) and general education in LIS education and training (**Research question d**) hopes to inform curriculum development.

5.2.4 **Research objective 4: Possibilities for institutional specialisation in LIS education and training**

Research objective 4: To examine what possibilities exist for institutional specialisation in library and/or information science education and training amongst the various higher education institutions in South Africa that offer library and/or information science qualifications, particularly in the context of the present government's current drive toward rationalisation in higher education.

The following research question had been generated to meet this research objective:

Research question e:

What possibilities exist in South Africa for institutional specialisation in library and/or information science education and training amongst the various universities and technikons offering library and/or information science qualifications?

The following discussions are relevant to this research question:

5.2.4.1 **Differentiation and diversity in higher education in South Africa**

The 1997 *Education White Paper 3 : a programme for the transformation of higher education* stressed, that central to the transformation process is that higher education must be planned, governed and funded as a single national co-ordinated system in order to overcome the fragmentation, inequality and inefficiency which are the legacy of the past (Department of Education 1997: 17). Towards this end the Council on Higher Education (CHE) that was charged with the responsibility of spearheading the restructuring of the higher education sector in South Africa reviewed the institutional landscape of the higher education sector and provided the Minister of Education with advice on the reconfiguration of this landscape to ensure long-term affordability and

sustainability of the higher education system (Council on Higher Education, Size and Shape of Higher Education Task Team 2000: 1, 3). Among the many proposals put forward by the CHE Task Team to the Minister and which largely forms the basis of the Education Ministry's *National plan for higher education* (2001), was the proposal relating to the need for differentiation and diversification of the higher education system. The report of the CHE Task Team argues that one of the reasons why differentiation and diversity are essential in higher education is that it serves no purpose if all institutions have exactly the same mandates and missions.

Thus it is evident that differentiation and diversity are important in the present government's restructuring and rationalisation of the higher education sector to bring about a more efficient and equitable higher education system. It is therefore important that this differentiation and diversity reflect itself in LIS education and training programmes offered at various universities and technikons in South Africa as well.

5.2.4.2 **Differentiation and specialisation in LIS education and training in South Africa**

The literature reflects that a long-standing debate in LIS education and training has been whether the basic professional programme should be generalised so that graduate professionals may be employed in a variety of environments or specialised to support professionals employed in specific roles or institutions. Despite this ongoing 'specialisation versus generalisation' debate, LIS education and training departments in South Africa had been encouraged to specialise according to their individual unique environments. Nassimbeni, Stilwell and Walker (1993), Van Brakel (1992), NEPI (1992) and the IFLA Mission to South Africa (1994) had all pointed out that by the early 1990s there was very little differentiation and specialisation at the basic qualification level among LIS education and training departments in South Africa. Approximately ten years later it seems as if this has changed as findings in the current study reflected in *Table 4.19* do reveal an interesting array of niche areas or specialisations among LIS departments or programmes in South Africa.

The two technikons, very much in keeping with the purpose of technikon education and training, seem to focus on digital information technologies. The University of the Transkei, located in a province (Eastern Cape) that is essentially rural, focuses on rural librarianship. The emerging information markets seem to be the focus of LIS departments at the Universities of Pretoria, Zululand, Stellenbosch, South Africa and at the Rand Afrikaans University. It is not surprising that these are the five LIS departments, which according to *Table 4.17* are offering the new three-year bachelors' degrees with majors or specialising in particular information related areas in an attempt to capture the emerging information markets by preparing graduates for the wider information market and not just libraries. These new three-year qualifications are discussed further in the next section. It is interesting that the University of the Western Cape sees librarianship for young people (children and the youth) as its area of focus. The University of Natal and the University of South Africa seem to be taking care of the area of records and documents management particularly in the archives environment. Librarianship in general and the important area of public librarianship, seem to be the specialities of the University of South Africa and the University of the North, respectively while the University of Cape Town seems to be focusing on the information society.

5.2.4.3 Three-year bachelors' degrees

Responses from educators from LIS departments offering these new three-year bachelors' degrees indicate that they see the wider information market, including libraries, as the market at which these programmes are aimed. There are, however, one or two of these departments that are targeting more specifically the corporate information environment. The heads of LIS departments at both the Rand Afrikaans University and the University of Stellenbosch have been quite specific about this as is evident from their responses (refer to Chapter 4) to the item that enquired what job market their three-year degree programmes are aimed at and also from *Table 4.19* which shows the niche areas of the various LIS departments or programmes. It is precisely these two LIS departments that have broken with the library paradigm in their education and training and have gone completely the route of preparing three-year graduates for the wider information market. In fact the head of the LIS

department at Rand Afrikaans University indicated in her response to the item on the three-year bachelors degrees' that as from the year 2002 a student may choose to do a B.Com.(Information Science Management) and not necessarily a B.A.(Information Science), this again revealing the corporate environment orientation of the qualification.

Other LIS departments offering the new three-year bachelors' degrees, for example the University of Zululand and the University of South Africa, are offering these new qualifications alongside the traditional LIS qualifications (refer to *Table 4.17*) thus targeting the traditional library and information services market as well as the emerging information markets. The University of Pretoria seems to be doing the same as the Rand Afrikaans University and the University of Stellenbosch, except that it still offers a major in Library Science in one of its three-year bachelors' degrees.

These discussions reveal that since the early 1990s much differentiation and specialisation has developed among LIS departments and programmes in South Africa. This augurs well for the LIS sector especially in view of the government's initiatives toward differentiation and diversity in higher education. There seem to be distinct possibilities developing in South Africa for institutional specialisation in LIS education and training among the various universities and technikons offering LIS qualifications.

5.2.5 **Research objective 5: Informing policy formulation regarding articulation between university and technikon LIS education and training**

Research objective 5: To inform policy formulation regarding articulation between library and/or information science programmes at higher education institutions, particularly universities and technikons.

Four research questions had been generated to meet this research objective:

Research question f:

What is the purpose of university education and training on the one hand and technikon education and training on the other?

Research question g:

In the light of the new education ethos in South Africa, what have been some of the major changes in higher education and how have these changes impacted on the traditional cultures and values of universities and technikons in South Africa?

Research question h:

What are the similarities and differences between university and technikon library and/or information science education and training?

Research question i:

What are the possibilities for articulation between university and technikon library and/or information science education and training in South Africa?

Research questions f, g and h had been generated to provide a broad context for addressing **Research question i**.

5.2.5.1 **The purpose of university and technikon education and training**

While both university and technikon education and training are located in the higher education sector, they have different foci in that while the former focuses on general education and lifelong learning, the latter focuses on specific technological and vocational preparation. The society and economy of a country have a need for products of both these types of education and training and thus both universities and technikons have a legitimate place in higher education. However, at the same time one needs to understand that while the university focuses on science (in the broad sense of the word which includes all scholarly activities) and the technikon on technology (the application of knowledge), there is no absolute dividing line between science and

technology and therefore, between university education and training and technikon education and training. For precisely this reason co-operation and articulation between these two types of institutions are crucial.

5.2.5.2 **Impact of major changes in higher education in South Africa on the traditional cultures and values of universities and technikons**

The literature has provided an account of recent major changes in higher education in South Africa and highlighted the new ethos of transformation, equity and efficiency. It also captures how current restructuring in higher education is impacting on traditional higher education cultures and values. Universities, more than technikons, are feeling the impact of recent changes in higher education on their traditional cultures and values as technikons have been subjected to regulation in the past while universities have valued their autonomy. However, now universities have to make the shift from a closed system to a more open system that is sensitive to the demands of the market place and other emerging needs.

However, it is important to note that despite the many changes taking place in higher education, the Education Ministry's *National plan for higher education* (2001) continues to recognise, for the short-to-medium term, universities and technikons as two types of institutions offering different kinds of higher education programmes, in the interest of institutional differentiation and diversity as well as the human resource needs of the country (Ministry of Education 2001: 52). That is, the traditional purpose of technikon education and training *vis-à-vis* university education and training discussed above is being maintained. The National Plan also stipulates, and again for reasons of institutional differentiation and diversity as well as the human resource needs of the country, that while universities may continue to offer programmes up to the doctoral level, technikons will focus on vocational programmes at the diploma level. The researcher supports this decision especially that technological and vocational education and training at the diploma level has been a strength of technikons and according to the National Plan has served the human resource needs of the country well. The researcher believes that technikons should continue to build on this strength instead of focussing on post-graduate programmes

and thus contributing to the current confusion regarding the relationship between university and technikon degree qualifications (particularly in LIS) referred to in the identification of the research problem in this study. In fact the researcher would like to suggest that the review of duplication of LIS programmes in KwaZulu Natal that has been called for (Ministry of Education 2002) should consider these arguments in deliberations on how to rationalise the duplication of programmes in the region.

5.2.5.3 **Similarities and differences between university and technikon library and/or information science education and training**

Employers and educators surveyed have identified many similarities and differences between university and technikon LIS education and training. However, a relatively large number of both employers and educators identified the practical orientation of technikon LIS education and training (it focuses on LIS services techniques) and the theoretical orientation of university LIS education and training (it provides in-depth knowledge of the field in addition to training in LIS techniques) as a major difference between the two types of education and training. This major difference between the two types of education and training is supported by the literature on the traditional purpose of technikon education and training *vis-à-vis* university education and training discussed earlier. It should also be noted that employers surveyed have identified the practical orientation of technikon LIS education and training as its major strength and the relative lack of practical exposure as a major weakness of university LIS education and training.

General education through a variety of general academic or discipline-based subjects in university education and training had also been identified by both employers and educators surveyed as a significant difference between the two types of LIS education and training. This difference too is supported by the literature on the traditional purpose of technikon education and training *vis-à-vis* university education and training, that is, that universities focus on general education and lifelong learning and technikons on specific technological and vocational preparation. It should also be noted that employers surveyed have identified general education as a major strength

of university LIS education and training and the general lack of general education as a major weakness of technikon LIS education and training.

The researcher believes that it is crucial to point out that these two differences between university and technikon education and training (evident in the literature as well as in the findings of this study), that is, the presence of general education in the former and the general lack of it in the latter and the theoretical orientation of university education and training and the practical orientation of technikon education and training, is what differentiates between professional and paraprofessional LIS education and training. Much of what has been couched in the findings of this study as strengths and weaknesses of each of these types of education and training, for example, university LIS graduates lack practical training or technikon LIS education and training has too narrow a focus in that it focuses on specific LIS services techniques and procedures, are actually a reflection of the basic purposes of these two types of education and training and should be viewed in this context.

The majority of employers and educators surveyed stated that a major similarity between the two types of LIS education and training is the fact that the basic themes of the library and information services profession are covered by the curricula of both technikons and universities. However, many employers and educators surveyed qualified this by saying that while there are strong similarities in LIS content between university and technikon LIS education and training, there are differences in orientation (theoretical and practical) and in depth of coverage and emphases. The researcher would like to emphasise that these differences in orientation, depth of coverage and emphases would be determined to a large extent by the traditional purposes of university and technikon education and training discussed above.

A further difference identified by some educator respondents and which has implications for articulation between university and technikon education and training is that entry requirements for the two types of education and training are different, that is, the technikon ND: LIS and subsequent B.Tech.(LIS) do not require a matriculation exemption as university LIS qualifications do. This, according to one educator respondent, leads to the assumption that students who enter technikons are not

expected to deal with highly rigorous and academic or research oriented work, such as in-depth general education, as students who enter universities are expected to. This, according to some educator respondents, leads to differences in the calibre and orientation of students who enter each of these two types of programmes. These are some of the issues that need to be taken into account when articulation requirements are being deliberated.

5.2.5.4 **Articulation between university and technikon library and/or information science education and training**

Within the context of the traditional purposes of university and technikon education and training, major similarities and differences between university and technikon LIS education and training, and current changes in higher education in South Africa to effect a new ethos of transformation, equity and efficiency in higher education, this study has also looked at what possibilities exist for articulation between university and technikon LIS education and training in South Africa.

There was a strong feeling among past students surveyed that their qualifications should allow them to articulate between higher education institutions. Relatively more educators surveyed support articulation between universities and technikons after completion of an LIS qualification than articulation between the two types of institutions when a student is in the midst of doing an LIS programme, as articulation in the latter case seems to be more problematic. There is much uncertainty among educators surveyed as to how to deal with articulation between technikons and universities. At the same time educators surveyed have also emphasised the importance of the issue of articulation especially in the light of current educational transformations in South Africa to bring about a more equitable and integrated education system. The literature reveals that until recently there has been a lack of guidelines on articulation between institutional types, which has resulted in much uncertainty on the issue of articulation between institutions. However, it is hoped that the issue of articulation between different types of higher education institutions would be resolved by current attempts to develop a single co-ordinated system of higher education in South Africa that brings together universities, technikons, colleges and

private providers of higher education, and will facilitate student mobility between different types of higher education institutions.

Structures are in the process of being developed at a national level so as to provide a coherent and transparent system within which articulation of qualifications can take place in a consistent manner. However, the NAP document (Council on Higher Education 2001) emphasises that while the proposed higher education framework provides general guidelines and parameters for articulation, it remains the right and responsibility of higher education institutions to determine their own admission requirements and the entry requirements for particular programmes. Interestingly, what comes through quite strongly in many of the responses to the items on articulation in the survey of educators in this study is that students articulating between technikons and universities may need to take certain modules, for example general education modules, in order to meet admission or curriculum requirements of the new programme. Such requirements of individual institutions do seem to have a place in the proposal regarding articulation being put forward by the proposed NAP and, in terms of the proposed higher education framework, may be accommodated within the articulation column of this framework.

The proposed NAP also makes it clear that it is important to understand that the pegging of two qualifications at the same NQF level does not mean that they are equal or even equivalent. It simply means that the programmes leading to these qualifications engage with comparable levels of complexity of learning. This is why the concept of horizontal and diagonal articulation is necessary to facilitate articulation between programmes and qualifications that may differ widely in nature and scope. In such cases further learning might be required before a learner's exit learning articulates with the entry requirement of a target programme, and vertical progression on the framework may be resumed (Council on Higher Education 2001: 53). This concept has important implications for the articulation of LIS programmes between university and technikon education and training that have different foci. For the first time there are definite guidelines being provided to guide articulation between university and technikon LIS education and training. Furthermore the proposed higher education framework within which these guidelines are being

provided, recognises and accommodates, especially for articulation purposes, the difference in foci of, for example, the technikon B.Tech.(LIS) and the university B.Bib./B.Inf. However, at the same time it must be remembered that education and training structures such as the proposed higher education framework are very much in a state of transition, which should be borne in mind when applying LIS qualifications to this framework.

It is hoped that these discussions on articulation between university and technikon LIS education and training provided in the context of traditional purposes of university and technikon education and training, major similarities and differences between university and technikon LIS education and training, and current changes in higher education in South Africa, would inform policy formulation regarding articulation between LIS programmes at universities and technikons.

5.3 **Conclusions of the study**

Section 5.2 has discussed the main findings of the study in relation to the objectives of the study and their corresponding research questions. The researcher believes that these discussions have adequately addressed the various research questions generated for the study. Based on these discussions the following conclusions are drawn and recommendations made:

- This study supports the view that the major differences between university and technikon education and training are:
 - the presence of general education in the former and the general lack of it in the latter, and
 - the theoretical orientation of university education and training and the practical orientation of technikon education and training.

These differences are a reflection of the traditional purposes of university and technikon education and training, that is, while the former focuses on general education and lifelong learning, the latter focuses on specific technological and vocational preparation.

- This study supports the view that general education is essential in the provision of a professional LIS service and that it distinguishes between professional and paraprofessional LIS education and training.
- The study confirms that the university Post-graduate Diploma in Library and/or Information Science and the B.Bibl. (or equivalent four-year university degree) are established professional LIS qualifications in South Africa. While the technikon ND: LIS is generally viewed as a paraprofessional qualification, LIS services employers are not using this qualification in its paraprofessional context, that is, as a parallel career path to professionalism for holders of this qualification, with its own post designations and career progressions separate from designations for clerical staff. However, at the same time employers are making use of the knowledge and skills of paraprofessionals. The current uncertainty regarding whether the technikon B.Tech.(LIS) should be regarded as a professional LIS qualification together with the four-year university LIS qualifications is largely the result of a general lack of clarity on the issue that professionalism and paraprofessionalism are alternative or parallel career paths each with its own career progression and that the latter is not a step in the direction of professionalism. The B.Tech.(LIS) is the next qualification level above the ND: LIS in the hierarchy of qualifications for the paraprofessional career path and therefore cannot be viewed as professional. Furthermore the B.Tech.(LIS) lacks general education, which it has been argued in this study, distinguishes between professional and paraprofessional LIS education and training.
- In view of the purpose of technikon education and training *vis-à-vis* university education and training, limited general education and not extended general education is necessary in the technikon LIS curriculum.
- The study confirms that while it is possible to identify certain knowledge and skill components as being appropriate to be part of the core library and/or information science curriculum for a first level LIS qualification, it is difficult

to be precise about what exactly constitutes or should constitute the core in library and/or information science education and training. This is a result of the core being a continuously evolving one as the information environment which LIS education and training programmes need to respond to, is in a state of continuous flux.

- The study supports the assertion that while it is the responsibility of LIS education and training institutions to provide students with a broad philosophical and theoretical base for library and information work, it is the responsibility of LIS services employers to train young professionals in the practical aspects of library and information work. It is not possible for educators to provide knowledge and skills at a functional level in all the required areas, as these are too diverse, the time is too short and changes in the LIS services environment too rapid. Knowledge and skills in many of these areas would have to be provided via continuing education either through employer-led training programmes and/or taken up on the initiative of the individual in the interest of self-development.
- While in the past there has been much uncertainty regarding articulation between university and technikon education and training as a result of a lack of guidelines on articulation between institutional types, there are currently higher education structures being developed to facilitate this type of articulation. However, when applying LIS qualifications to these structures it must be remembered that these structures are very much in a state of transition.

5.4 **Recommendations of the study**

- LIASA, like professional LIS bodies in the United States of America, Canada and Australia, should provide official recognition of the value and need for paraprofessionals in LIS services by, for example, creating a membership category for paraprofessionals as has happened in Australia. This is likely to

influence LIS services employers to create career structures for paraprofessionals in their organisations.

- Educators preparing LIS paraprofessionals for the LIS services market need to more vigorously market the paraprofessional qualifications among employers as qualifications whose incumbents have specific knowledge and skills to be ranked below librarians but above clerical and other support employees in LIS services.

LIS educators generally need to make employers and students aware that LIS professionalism and paraprofessionalism are alternative career directions each with its own career progressions. Employers can be targeted on this issue via educator-employer liaison committees and advisory boards, workshops and the professional literature. Students may be enlightened on the fundamental difference between professionalism and paraprofessionalism by including this as a part of their curriculum.

- Paraprofessional diplomates and graduates need to organise themselves into paraprofessional interest groups, staff associations, unions or any other structure that provides a forum for them to lobby for paraprofessional career structures in LIS services and to generally use these structures to further their interests and development as paraprofessionals.

5.5 **Suggestions for further studies**

- It was the intention of this study to look at issues relating to first level LIS qualifications in library **and/or** information services. However, it is evident from the findings of this study that most of the issues relate to the traditional library and information sector, for example academic libraries and public libraries. Unfortunately, for reasons explained in Chapter 3, there was a very low return of questionnaires from special libraries and information services. Thus the analysis of data gathered via the questionnaires revealed findings

largely in traditional library and information services from which there was a relatively better return of questionnaires. It would be useful for a study to be undertaken that focuses on qualification requirements, job titles and job tasks in special libraries and information services, since the current study has on the odd occasion revealed that 'things happen differently' in special libraries and information services, particularly those in the corporate world. Such a study is also imperative in the light of the fact that this study has revealed that there are new three-year bachelor degree qualifications in LIS education and training in South Africa that are targeting emerging information markets, particularly in the corporate sector.

- While this study has been able to reveal that there is a lack of career progressions for paraprofessionals in LIS services, it has not examined whether the career progressions currently available for LIS services professionals are adequate. The data elicited via the questionnaires did not allow investigation in this area. It would be useful for a study to be carried out in this important area.

5.6 Summary and conclusion

This final chapter, within the context of the objectives of this study and the research questions that had been generated to meet these objectives, has discussed the main findings of the study. It also drew conclusions and made recommendations based on these discussions.

The general purpose of this study was to conduct a comparative study of first level library and/or information science qualifications offered at South African universities and technikons in an attempt to unpack some of the 'confusion' referred to in the identification of the research problem in Chapter 1. Research objectives had been set to effect this general purpose and research questions had been generated in order to meet these objectives. Findings from this study arising out of the analysis of data collected via the three data gathering instruments were discussed in relation to these research objectives and their respective research questions. These discussions drew on

the literature that was reviewed for the study. Conclusions were drawn and recommendations were made based on these discussions. The researcher believes the study has been successful in meeting its research objectives. Where it was possible, conclusions were drawn and where it was not possible to conclusively answer research questions then issues were raised and recommendations were made. The researcher believes that this study is timeous in that it comes at a time when a review of duplication of LIS programmes in the KwaZulu Natal region has been called for as part of the government's rationalisation programme for higher education. This comparative study of first level LIS qualifications offered at South African universities and technikons has researched an area in which very little empirical investigation has been done before and thus offers a platform which the pending review on the duplication of LIS programmes, may wish to use as a starting point in its investigations.

ⁱ Support staff in LIS services is used in the context of a broad category of staff who assist in the provision of a professional LIS service and include LIS paraprofessionals, clerical staff and other classifications of staff in LIS services such as student assistants, vehicle drivers and non-librarian professionals such as personnel officers, accountants and computer programmers.

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APPENDIX A

Questionnaire for Library and/or Information Science Graduates and Diplomates from Universities and Technikons

Note: The abbreviations LIS (library and/or information services) and IS (library and/or information science) used in the questionnaires, had been changed to LIS services (library and/or information services) and LIS (library and/or information science) in the write-up of the thesis as the latter is in keeping with international standard abbreviations.

10 Manor Grove
Manor Gardens
Durban, 4001
___ April 2002
Tel: 2611143
Cell: 083 555 0421
E-mail: rajur@nu.ac.za

Dear _____

**Questionnaire for Library and/or Information Science Graduates and Diplomates
from Universities and Technikons**

I am a doctoral student in the Human Sciences Faculty at the University of Natal and I am doing a comparative study of first level library and/or information science programmes and related qualifications at South African universities and technikons. Professor Andrew Kaniki from the University of Natal is the supervisor of my research.

This questionnaire is being sent to past students who have graduated in the last five years with a first level library and/or information science qualification and who are currently employed in library and/or information services. The purpose of the questionnaire is to gather data regarding past students' views about first level library and/or information science qualifications at South African universities and technikons and their relevance to the library and/or information services (LIS) work environment.

There is confusion for those currently employed in library and/or information services, those who wish to become library and/or information professionals and those who want to employ library and/or information professionals as to what level of education and training is required for given posts in the LIS work environment. There is also lack of clarity among the majority of people associated with library and/or information services as to the relationship between university and technikon first level library and/or information science education and training. Library and/or information science educators as well need to decide what to teach, at what levels and for what types of posts in the work environment. This situation is not peculiar to South Africa, but a world wide one. However, countries such as the United States, the United Kingdom and Australia have in some way addressed the problem. The library and information services profession in South Africa needs to do the same. The situation is aggravated by the fact that technikons in South Africa, which had previously offered non-degree programmes only, have begun to offer programmes leading to degree qualifications. For these and many other reasons, a comparative study of first level library and/or information science qualifications in South Africa needs to be undertaken. It is hoped that this study will provide guidance to employers, students and educators regarding education and training as well as employment in the LIS field.

It would be much appreciated if you could spare some time to complete this questionnaire fully and honestly. The information provided in this survey will be treated in strict confidence and will be used for academic purposes only.

I will be most grateful if you could complete the questionnaire and return it to me at your earliest convenience, but **before the 22 May 2002**. Please find enclosed a self-addressed and stamped/postage paid envelope.

Thank you for your co-operation.

Yours sincerely

Jaya Raju (Senior Lecturer: Department of Library and Information Studies, M.L. Sultan Technikon)

**FIRST LEVEL LIBRARY AND/OR INFORMATION SCIENCE
QUALIFICATIONS AT SOUTH AFRICAN UNIVERSITIES AND
TECHNIKONS: A COMPARATIVE STUDY OF CURRICULA**

**Questionnaire for Library and/or Information Science Graduates and Diplomates
from Universities and Technikons**

General instructions:

- *Please answer/complete the following questions/items fully.*
- *You may not be required to answer/complete all questions/items but only those applicable to you.*
- *Tick the relevant option(s) where necessary. In some instances you may be required to tick more than one option.*
- *Some questions/items require you to give ratings on a given scale.*
- *Place ticks and ratings in the squares provided. Please write across the squares if you find them too small to fit your responses into.*
- *Should you require additional space to write your answer(s) or comment(s), please use additional paper and attach it to the questionnaire.*

Important definitions:

*The terms **programme** and **qualification** are used frequently in this questionnaire. It is important for you to be clear about these concepts. Definitions of these and other related terms as they are used in this questionnaire, are therefore provided here:*

*An academic **programme** is a purposeful and structured set of learning experiences designed to enable students to achieve pre-specified outcomes, that is, what the student is able to do at the end of the learning experience. This coherent combination of learning experiences leads to a **qualification**, which may be defined as the certification of the attainment of the learning outcomes of a particular learning programme. A **first level library and/or information science qualification** is a **beginning** library and/or information science qualification that affords individuals entry into the library and/or information services work environment where the work can be at the professional or the paraprofessional level. A **first level professional library and/or information science qualification** is a beginning qualification that affords individuals entry into the library and/or information services work environment at a **professional level**.*

General note:

*Please note that in this questionnaire the term **library and/or information services** refers to library and information services specifically, as well as to information services generally. This term is, for the sake of brevity, abbreviated in certain places as LIS. The term **Library and/or information science** refers to library and information science/studies as well as information science/studies (that is, the discipline). This term is, again for the sake of brevity, abbreviated in certain places as IS.*

1. What is the name of the library and/or information service in which you are currently employed? (e.g. B.M. Patel Library)

2. What is the name of the parent organisation or institution of which this library and/or information service is a part? (e.g. M.L. Sultan Technikon)

3. What is the **type or nature** of this library and/or information service? (Please tick the relevant option.)
 - Academic library (university, technikon, or college library)
 - Public library
 - National library
 - Provincial library service
 - Government department library/information service
 - Special library/information service (specify type e.g. research, business, etc. _____)
 - Museum library/information service
 - Archival library/information service (national, provincial or institutional)
 - Other, please specify _____
4. What post do you currently hold in this library and/or information service? (e.g. Librarian, Library Assistant) _____
5. In what year were you appointed to this post? (e.g. 1998) _____
6. What type of post is this? (Please tick the relevant option.)
 - Professional post
 - Paraprofessional post
 - Clerical post
 - Other, please specify _____
7. Which of the following library and/or information science qualifications do you hold? (Please tick the relevant options. You may tick more than one option.)
 - National Diploma: Library and Information Studies/Practice/Services (ND: LIS)
 - Bachelor of Technology: Library and Information Studies (B.Tech.: LIS)
 - Higher Diploma in Library Science (HDLS) or Advanced University Diploma in Information Studies (AUDIS) or Post-graduate Diploma in Information Studies (PGDIS) or equivalent post-graduate diploma
 - Bachelor of Library and Information Science (B.Bibl.) or Bachelor of Information Science (B.Inf.) or equivalent four-year university degree

- Other first level (refer to the section on definitions at the beginning of this questionnaire for the definition of **first level**) library and/or information science qualification. (Please specify _____)

8. In what year(s) did you attain this/these qualification(s)? (e.g. ND: LIS - 1999; B.Tech.: LIS - 2000)

9. From which institution(s) did you obtain this/these qualification(s)? (e.g. B.Bibl. - UNISA)

10. Please list the key tasks involved in your current job. If you have a copy of your job contents, please attach it to this questionnaire or transcribe the key tasks below.

Questions/Items 11 to 26 should be answered/completed on the basis of what you have ticked in question 7:

- ND: LIS – answer/complete questions/items 11, 12, 13 and 14
- B.Tech.: LIS – answer/complete questions/items 15, 16, 17 and 18
- PGDIS or equivalent post-graduate diploma – answer/complete questions/items 19, 20, 21 and 22
- B.Bibl. or equivalent four-year university degree – answer/complete questions/items 23, 24, 25 and 26

Questions/Items 11, 15, 19 and 23 provide a breakdown of instructional offerings/ subjects/courses/modules (hereafter referred to as instructional offerings) that make up academic programmes that lead to first level library and/or information science qualifications offered by universities and technikons in South Africa.

In the case of the qualification(s) that you have attained, please rate each of the instructional offerings (including those which you may not have done at the time when you had been registered for the programme) in terms of relevance to your current job using a rating scale of 1 to 5 (1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant).

The list of instructional offerings together with brief descriptions provided, are based on information available from library and/or information science departments' web sites, departmental handbooks and prospectuses of institutions. Among the various academic departments there are slight differences in terminology used in academic programmes, content of the instructional offerings, levels at which certain aspects of the programme are offered and other minor differences. For the purposes of this questionnaire, these minor differences are immaterial as long as all existing instructional offerings have been reflected as being part of the programme leading to a first level library and/or information science qualification.

If you have attained a National Diploma: Library and Information Studies/ Practice/Services please answer/complete questions/items 11, 12, 13 and 14.

11. **National Diploma: Library and Information Studies (ND: LIS)** - A three-year national programme offered by technikons in South Africa. Previously referred to as the National Diploma: Library and Information Practice or Services.

(Place your rating in the square provided -1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

- Library and Information Practice I** (Various information environments and their aims and functions; the LIS profession; legislation affecting information provision.)
- Information Retrieval I** (Bibliographic control tools and processes; reference sources; OPAC searches.)
- Library and Information Technology I** (Office equipment; formats of recorded information; ergonomics and library/office safety; computer laboratory practicals.)
- User Studies I** (Importance of User Studies to the LIS worker; the reading process; reading motives, needs and interests; reader typology.)

- End-user Computing** (Computer types, hardware and software; keyboard skills; operating systems and environments; software packages; computer laboratory practicals.)
- Human Studies** (History and appreciation of art and music; orientation to science and technology; societal themes.)
- English** (Communication theory; correspondence; oral communication; intercultural communication.)
- Afrikaans** (Correspondence; engaging with Afrikaans texts; basic discussion on topical issues.)
- IsiZulu or IsiXhosa or any other African language that is offered** (Intercultural communication; oral communication; writing skills.)
- Library and Information Practice II** (The book trade and publishing; collection development; acquisitions procedures; serials control; library administration.)
- Library and Information Retrieval II** (Subject analysis; descriptive cataloguing; classification; subject headings; introduction to indexing, abstracting and thesaurus construction.)
- Library and Information Technology II** (General purpose application software; library specific databases; database management systems; search technology and software; networks; computer laboratory practicals.)
- User Studies II** (The adult reader; the neo-literate reader; the child as a reader; the teenage reader; library services for these various categories of readers; user education.)
- Literature Studies** (History and appreciation of: children's literature; African literature and African literature in English; English literature.)
- Psychology in Organisations** (The value and application of psychology in libraries and information centers.)
- Library Promotion** (Marketing the library; press relations and public relations programmes; library publications; material and techniques in library promotion.)

- Information Practice III** (Introduction to readership; introduction to management techniques and financial control; introduction to research methodology.)
 - User Studies III** (The community survey; the community profile; importance of user studies in collection development and material selection.)
 - Information Retrieval III** (Print and electronic reference sources including the Internet; the reference process; database construction; computer laboratory practicals.)
 - Library and Information Technology III** (The digital library: evolution; strategic planning; funding and costs; collection and preservation; retrieval.)
 - Experiential learning** (Fieldwork in a recognised library or information service; distributed over the three years as individual academic programmes require.)
 - Other**, please specify _____
-

12. Do you think that any of the above instructional offerings should be removed from the National Diploma programme? (Please tick the relevant option.)

- No
- Yes, **please indicate which ones should be removed and provide reasons for this.**

13. Do you think that there are other aspects that should be brought into the National Diploma programme? (Please tick the relevant option.)

- No
- Yes, **please indicate what these aspects are and why they should be included in the programme.**

14. Do you think that the post that you currently hold is commensurate (on a par) with your National Diploma qualification? (Please tick the relevant option.)

Yes, please explain _____

No, please explain _____

If you have attained a Bachelor of Technology: Library and Information Studies please answer/complete questions/items 15, 16, 17 and 18.

15. **Bachelor of Technology: Library and Information Studies (B.Tech.: LIS)** - A national programme offered by technikons in South Africa at the fourth level of study after completion of the three-year National Diploma: Library and Information Studies/Practice/Services.

(Place your rating in the square provided -1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

Research Methodology (Research planning and design; data collection; literature review; research techniques; writing research reports; research project.)

Information Retrieval IV (Theory and application of indexing, abstracting and thesaurus construction; web page design; online information retrieval.)

Library and Information Practice IV (Organisational theory, politics and culture; personnel management; strategic management.)

- Library and Information Technology IV** (Management of a digital library; advanced IT developments.)
- Information Management** (Role and importance of the information services department in an organisation; information resource management; fundamentals of information systems.)
- Readership for Semi-literates** (Literature and literary resources for adult learners; organisation and administration of adult literacy; policy issues affecting adult literacy.)
- Children's Library Practice** (Child development; children's literature; services offered by the children's library; management of the children's library.)
- Book Conservation** (The role of preservation in library management; the nature of library materials and agents of deterioration; techniques of conservation.)
- Information User Studies** (The information user: attitudes to information, information needs, information seeking behaviour.)
- Philosophy of Library and Information Science** (Different library and information science philosophers; influence of certain philosophical perspectives.)
- Other**, please specify _____

16. Do you think that any of the above instructional offerings should be removed from the B.Tech. programme? (Please tick the relevant option.)

- No
- Yes, please indicate which ones should be removed and provide reasons for this.

17. Do you think that there are other aspects that should be brought into the B.Tech. programme? (Please tick the relevant option.)

- No
- Yes, **please indicate what these aspects are and why they should be included in the programme.**

18. Do you think that the post that you currently hold is commensurate (on a par) with your B.Tech. qualification? (Please tick the relevant option.)

- Yes, **please explain** _____

- No, **please explain** _____

If you have attained a Post-graduate Diploma in Information Studies or an equivalent post-graduate diploma, please answer/complete questions/items 19, 20, 21 and 22.

19. **Post-graduate Diploma in Information Studies (PGDIS)** - A programme offered at universities and also referred to at some universities as the Post-graduate Diploma in Library and Information Science. Offered at the fourth year level after completion of a bachelor's degree in any field.

(Place your rating in the square provided -1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

- Bibliographic Description** (Theory, principles and application of descriptive cataloguing.)
- The Information Society** (LIS systems, products and services; introduction to the LIS profession; use of information in the contexts of development and globalisation.)

- **Management of Libraries and Information Centres** (Management theories; basic principles of management and their application in libraries and information centres.)
- **User Studies** (Information needs assessment and different user groups; basic research methodology in user studies; design of information literacy programmes.)
- **Information Delivery Systems** (Visual displays; newspapers; repackaging information in pamphlet form; information delivery in rural areas.)
- **Information Resource Management** (Fundamentals of information systems; evaluation and security and control of information systems.)
- **Information Resources and Retrieval** (Principles and theory of reference and bibliographic work and services; the reference process; selection and evaluation of non-electronic and electronic reference and bibliographic tools.)
- **Organisation of Information and Materials** (Subject analysis; classification; subject headings; indexing systems.)
- **Automation of Libraries and Information Centres** (Computerisation of library operations; information resource sharing networks; various computer (LIS) packages in use.)
- **Information and Communication Technologies** (Information processing and computers; basic computer configuration; operating systems; application software.)
- **Databases and Database Production** (Categories and applications of databases and query languages; principles of database construction.)
- **Records and Documents Management** (Components of records management programmes; setting up records management programmes; managing electronic records.)
- **Strategic Planning** (Development of strategic plans; national development plans centred on the use of information.)
- **Research** (Basic research methodology; research project.)
- **Fieldwork and Practicals** (Regular sessions of hands-on work in the campus library on the various processes and procedures of the library;

placement in a recognised library or information service; visits to various libraries and information services; computer laboratory practicals for computer related aspects of instructional offerings.)

Other, please specify _____

20. Do you think that any of the above instructional offerings should be removed from the Post-graduate Diploma programme? (Please tick the relevant option.)

No
 Yes, **please indicate which ones should be removed and provide reasons for this.**

21. Do you think that there are other aspects that should be brought into the Post-graduate Diploma programme? (Please tick the relevant option.)

No
 Yes, **please indicate what these aspects are and why they should be included in the programme.**

22. Do you think that the post that you currently hold is commensurate (on a par) with your Post-graduate Diploma qualification? (Please tick the relevant option.)

Yes, **please explain** _____

No, **please explain** _____

If you have attained a Bachelor of Library and Information Science (B.Bibl.) or a Bachelor of Information Science (B.Inf.), that is, a four-year university degree in library and/or information science, please answer/complete questions/items 23, 24, 25 and 26.

23. **Bachelor of Library and Information Science (B.Bibl.) or Bachelor of Information Science (B.Inf.)** - A four-year degree offered at universities called the B.Bibl. and more recently at some institutions, called the B.Inf. The programme generally consists of instructional offerings a certain number of which are Library Science and/or Information Science instructional offerings. Library Science and Information Science instructional offerings only are listed below for you to rate.

(Place your rating in the square provided -1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

- Information Environment** (Different types of library and information services and agencies, both modern and traditional; information networks)
- Applied Record Studies** (Different kinds of records in information agencies: their history, characteristics, possible uses and their influence on information agencies and society in general.)
- Bibliographic Control** (Purpose, methods and application of bibliographic control.)
- Information Sources** (Contents of different types of printed, CD-ROM and Internet-based reference sources.)
- Information and Reference Services** (The reference interview; search strategies for manual, online and Internet searches.)
- Bibliographic Description** (Theory and practice of descriptive cataloguing.)

- Organisation of Information and Materials** (Theory and practice of subject analysis; classification; subject headings; indexing; thesaurus construction)
- Management of Libraries and Information Centres** (Management theories and their application to libraries and information centres.)
- Information Resource Management** (Fundamentals and management of information systems in organisations.)
- Collection Development** (Theory and practice in selection of information sources and other media; managing information collections, including serial collections, in the electronic era.)
- Research Methods** (Methods and techniques in conducting and reporting research on information needs, behaviour and services; research project.)
- User Studies** (Determining user needs and building information collections and services accordingly.)
- Information and Communication Technology Applications in LIS** (Electronic information organisation and retrieval; information retrieval from a selection of systems; database design.)
- Fieldwork and Practicals** (Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; computer laboratory practicals for computer related aspects of instructional offerings.)

Other instructional offerings available at certain universities (please rate these as well):

- Educational Information Services in Developing Countries**
- Children and Youth Library Services**
- Advanced Classification**
- Special Cataloguing**
- Computerised Cataloguing**
- Publishing, Printing and the Book Trade**

Origins and Uses of Databases in Library and Information Services

Compilation of Bibliographies

Other, please specify _____

24. Do you think that any of the above instructional offerings should be removed from the four-year university degree programme? (Please tick the relevant option.)

No

Yes, please indicate which ones should be removed and provide reasons for this.

25. Do you think that there are other aspects that should be brought into the four-year university degree programme? (Please tick the relevant option.)

No

Yes, please indicate what these aspects are and why they should be included in the programme.

26. Do you think that the post that you currently hold is commensurate (on a par) with your four-year university degree qualification? (Please tick the relevant option.)

Yes, please explain _____

No, please explain _____

27. If you have obtained your **first level library and/or information science qualification from a university**, why did you choose to do a university programme? (Please tick the relevant option. You may tick more than one option.)

- My employers recommended a university programme
- My parents wanted me to choose a university programme
- My friends and colleagues recommended a university programme
- University IS graduates recommended a university programme
- I wanted to do a university programme because I believed it would make me more employable in the job market as it is generally held in high esteem by society
- I had obtained a matriculation exemption and therefore qualified to do a university library and/or information science programme
- Any other reason, please specify _____

28. If you have obtained your **first level library and/or information science qualification from a technikon**, why did you choose to do a technikon programme? (Please tick the relevant option. You may tick more than one option.)

- My employers recommended a technikon programme
- My parents wanted me to choose a technikon programme
- My friends and colleagues recommended a technikon programme
- Technikon IS diplomates and graduates recommended a technikon programme
- I wanted to do a technikon programme because I believed it would make me more employable in the job market as a result of its technological, vocational and practical orientation
- I did not obtain a matriculation exemption and therefore had to choose a technikon library and/or information science programme which has less stringent entrance requirements
- Any other reason, please specify _____

29. Are you satisfied with the choice that you had made between a university and a technikon first level library and/or information science programme? (Please tick the relevant option.)

Yes, please explain why _____

No, please explain why _____

30. Looking back at your education and training for the attainment of the qualification(s) that you have indicated in question 7, would you say that you had, at the time, **adequate and up-to-date library resources, information technology resources and physical resources**? (Please tick the relevant option.)

Yes
 No, please explain _____

31. Looking back at your education and training for the attainment of the qualification(s) that you have indicated in question 7, would you say that, at the time, **the academic staff was adequately qualified and up-to-date in their field**?

Yes
 No, please explain _____

32. Do you anticipate taking further studies in library and/or information science? (Please tick the relevant option.)

Yes
 No, please explain why _____

33. If your response in question 32 is **yes**, at what type of institution would you prefer to pursue further studies? (Please tick the relevant option.)

University

Please explain why _____

Technikon

Please explain why _____

Other, please specify _____

Please explain why _____

34. Are you currently engaged in further studies? (Please tick the relevant option.)

Yes

No, please explain why _____

35. If your response in question 34 is **yes**, please give details of what programme you are currently registered for and with which institution (e.g. Bachelor of Information Science (Honours) – UNISA)

36. Do you feel that it is important that your qualifications should enable you to enter another higher-level programme (library and/or information science or otherwise)

at **another type** of higher education institution in South Africa or outside the country? (Please tick the relevant option.)

Yes, **please explain why** _____

No, **please explain why** _____

Thank you very much for your time and effort in completing this questionnaire.
Please return the questionnaire to me **before the 22 May 2002** using the self-addressed and stamped/postage paid envelope.

Jaya Raju (Mrs)
© 2002

10 Manor Grove
Manor Gardens
Durban, 4001
Tel: 2611143
Cell: 083 555 0421
E-mail: rajur@nu.ac.za

APPENDIX B

Questionnaire for Library and/or Information Information Services Employers

10 Manor Grove
Manor Gardens
Durban, 4001
____ April 2002
Tel: 2611143
Cell: 083 555 0421
E-mail: rajur@nu.ac.za

Dear _____

Questionnaire for Library and/or Information Services Employers

I am a doctoral student in the Human Sciences Faculty at the University of Natal and I am doing a comparative study of first level library and/or information science programmes and related qualifications at South African universities and technikons. Professor Andrew Kaniki from the University of Natal is the supervisor of my research.

This questionnaire is being sent to heads, deputies and senior managers of major library and/or information services in order to gather data regarding employers' views about first level library and/or information science qualifications at South African universities and technikons and their relevance to the library and/or information services (LIS) work environment.

There is confusion for those currently employed in library and/or information services, those who wish to become library and/or information professionals and those who want to employ library and/or information professionals as to what level of education and training is required for given posts in the LIS work environment. There is also lack of clarity among the majority of people associated with library and/or information services as to the relationship between university and technikon first level library and/or information science education and training. Library and/or information science educators as well need to decide what to teach, at what levels and for what types of posts in the work environment. This situation is not peculiar to South Africa, but a world wide one. However, countries such as the United States, the United Kingdom and Australia have in some way addressed the problem. The library and information services profession in South Africa needs to do the same. The situation is aggravated by the fact that technikons in South Africa, which had previously offered non-degree programmes only, have begun to offer programmes leading to degree qualifications. For these and many other reasons, a comparative study of first level library and/or information science qualifications in South Africa needs to be undertaken. It is hoped that this study will provide guidance to employers, students and educators regarding education and training as well as employment in the LIS field.

It would be much appreciated if you could spare some time to complete this questionnaire fully and honestly. The information provided in this survey will be treated in strict confidence and will be used for academic purposes only.

I will be most grateful if you could complete the questionnaire and return it to me at your earliest convenience, but **before the 22 May 2002**. Please find enclosed a self-addressed and stamped/postage paid envelope.

Thank you for your co-operation.

Yours sincerely

Jaya Raju (Senior Lecturer: Department of Library and Information Studies, M.L. Sultan Technikon)

FIRST LEVEL LIBRARY AND/OR INFORMATION SCIENCE QUALIFICATIONS AT SOUTH AFRICAN UNIVERSITIES AND TECHNIKONS: A COMPARATIVE STUDY OF CURRICULA

Questionnaire for Library and/or Information Services Employers

General instructions:

- Please answer/complete the following questions/items fully.
- You may not be required to answer/complete all questions/items but only those applicable to you.
- Tick the relevant option(s) where necessary. In some instances you may be required to tick more than one option.
- Some questions/items require you to give ratings on a given scale.
- Place ticks and ratings in the squares provided. Please write across the squares if you find them too small to fit your responses into.
- It may be necessary for you to complete this questionnaire in consultation with some of your staff.
- Should you require additional space to write your answer(s) or comment(s), please use additional paper and attach it to the questionnaire.

Important definitions:

The terms **programme** and **qualification** are used frequently in this questionnaire. It is important for you to be clear about these concepts. Definitions of these and other related term as they are used in this questionnaire, are therefore provided here:

An academic **programme** is a purposeful and structured set of learning experiences designed to enable students to achieve pre-specified outcomes, that is, what the student is able to do at the end of the learning experience. This coherent combination of learning experiences leads to a **qualification**, which may be defined as the certification of the attainment of the learning outcomes of a particular learning programme. A **first level library and/or information science qualification** is a **beginning** library and/or information science qualification that affords individuals entry into the library and/or information services work environment where the work can be at the professional or the paraprofessional level. A **first level professional library and/or information science qualification** is a beginning qualification that affords individuals entry into the library and/or information services work environment at a **professional level**.

General note:

Please note that in this questionnaire the term **library and/or information services** refers to library and information services specifically, as well as to information services generally. This term is, for the sake of brevity, abbreviated in certain places as LIS. The term **Library and/or information science** refers to library and information science/studies as well as information science/studies (that is, the discipline). This term is, again for the sake of brevity, abbreviated in certain places as IS.

1. What is the name of the library and/or information service at which you are currently employed? (e.g. B.M. Patel Library)

2. What is the name of the parent organisation or institution of which this library and/or information service is a part? (e.g. M.L. Sultan Technikon)

3. What is the **type or nature** of the library and/or information service that you are currently in charge of? (Please tick the relevant option.)
 - Academic library (university, technikon, or college library)
 - Public library
 - National library
 - Provincial library service
 - Government department library/information service
 - Special library/information service (specify type e.g. research, business, etc. _____)
 - Museum library/information service
 - Archival library/information service (national, provincial or institutional)
 - Other, please specify _____
4. What is your current designation in this library and/or information service? (e.g. Director, Head Librarian, Deputy Director)

5. What is the highest professional or academic qualification that you hold?

6. When did you attain this qualification? (e.g. 1987)_____
7. Please indicate with a tick in each case below if any member of staff in your library and/or information service has attained in the last five years any of the qualifications listed. (Senior managers in charge of sections may answer this question in terms of their individual sections.)
 - National Diploma: Library and Information Studies/Practice/Services (ND: LIS)
How many members of staff? (e.g. 4, 6, etc.)_____
 - Bachelor of Technology: Library and Information Studies (B.Tech.: LIS)
How many members of staff? (e.g. 4, 6, etc.)_____

- Higher Diploma in Library Science (HDLS) or Advanced University Diploma in Information Studies (AUDIS) or Post-graduate Diploma in Information Studies (PGDIS) or equivalent post-graduate diploma

How many members of staff? (e.g. 4, 6, etc.) _____

- Bachelor of Library and Information Science (B.Bibl.) or Bachelor of Information Science (B. Inf.) or equivalent four-year university degree

How many members of staff? (e.g. 4, 6, etc.) _____

- Other first level (refer to the section on definitions at the beginning of this questionnaire for the definition of **first level**) library and/or information science qualification. (Please specify _____)

How many members of staff? (e.g. 4, 6, etc.) _____

8. What job titles (e.g. Librarian, Library Assistant, Assistant Librarian, Senior Library Assistant) are **currently assigned** to members of staff in your library and/or information service with any of the following as their highest IS qualification? (Senior managers in charge of sections may answer this question in terms of their individual sections.)

For example:

- **ND: LIS:** Library Assistants (4); Senior Library Assistants (2); etc.
- **B.Tech.: LIS:** Librarian (1); Library Assistants (2); etc.
- etc.

ND: LIS _____

B.Tech.: LIS _____

- HDLS or AUDIS or PGDIS or equivalent post-graduate diploma

- B.Bibl. or B.Inf. or equivalent four-year university degree

- Other first level library and/or information science qualification. (Please specify _____)

9. What, in your library and/or information service, determines the appointment to specific posts for persons with first level library and/or information science qualifications? (Please tick the relevant option. You may tick more than one option.)

- Availability of a post
 Personal promotion on acquisition of a higher qualification in the field
 Personal promotion based on performance on the job
 Other policy or practice of the organisation. Please specify _____

Question 10 that follows, should only be answered by heads or deputies of library and/or information services. Other respondents please proceed to the section immediately following question 10.

10. Can you please provide the job contents of each of the job titles you have indicated in question 8?

(Please attach copies of job contents for these posts to this questionnaire. I will gladly pay for the cost of making these copies. **I would also like to reassure the**

respondent that the utmost confidentiality would be observed with the information provided.)

Items 11, 14, 17 and 20 provide a breakdown of the instructional offerings/subjects/courses/modules (hereafter referred to as instructional offerings) that make up academic programmes that lead to first level library and/or information science qualifications offered by universities and technikons in South Africa.

If your library and/or information service has members of staff who have in the last five years attained any of the IS qualifications listed in items 11, 14, 17 and 20, please rate each of the instructional offerings in terms of relevance to their current job environment using a rating scale of 1 to 5 (1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant).

The list of instructional offerings together with brief descriptions provided, are based on information available from library and/or information science academic departments' web sites, departmental handbooks and prospectuses of institutions. Among the various academic departments there are slight differences in terminology used in academic programmes, content of the instructional offerings, levels at which certain aspects of the programme are offered and other minor differences. For the purposes of this questionnaire, these minor differences are immaterial as long as all existing instructional offerings have been reflected as being part of the programme leading to a first level library and/or information science qualification.

Answer/Complete questions/items 11, 12 and 13 only if your library and/or information service has members of staff who have attained a National Diploma: Library and Information Studies/Practice/Services in the last five years. Otherwise proceed to the section just before item 14.

11. **National Diploma: Library and Information Studies (ND: LIS)** - A three-year national programme offered by technikons in South Africa. Previously referred to as the National Diploma: Library and Information Practice or Services.

(Place your rating in the square provided - 1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

- Library and Information Practice I** (Various information environments and their aims and functions; the LIS profession; legislation affecting information provision.)
- Information Retrieval I** (Bibliographic control tools and processes; reference sources; OPAC searches.)

- **Library and Information Technology I** (Office equipment; formats of recorded information; ergonomics and library/office safety; computer laboratory practicals.)
- **User Studies I** (Importance of User Studies to the LIS worker; the reading process; reading motives, needs and interests; reader typology.)
- **End-user Computing** (Computer types, hardware and software; keyboard skills; operating systems and environments; software packages; computer laboratory practicals.)
- **Human Studies** (History and appreciation of art and music; orientation to science and technology; societal themes.)
- **English** (Communication theory; correspondence; oral communication; intercultural communication.)
- **Afrikaans** (Correspondence; engaging with Afrikaans texts; basic discussion on topical issues.)
- **IsiZulu or IsiXhosa or any other African language that is offered** (Intercultural communication; oral communication; writing skills.)
- **Library and Information Practice II** (The book trade and publishing; collection development; acquisitions procedures; serials control; library administration.)
- **Library and Information Retrieval II** (Subject analysis; descriptive cataloguing; classification; subject headings; introduction to indexing, abstracting and thesaurus construction.)
- **Library and Information Technology II** (General purpose application software; library specific databases; database management systems; search technology and software; networks; computer laboratory practicals.)
- **User Studies II** (The adult reader; the neo-literate reader; the child as a reader; the teenage reader; library services for these various categories of readers; user education.)
- **Literature Studies** (History and appreciation of: children's literature; African literature and African literature in English; English literature.)
- **Psychology in Organisations** (The value and application of psychology in libraries and information centers.)

- Library Promotion** (Marketing the library; press relations and public relations programmes; library publications; material and techniques in library promotion.)
- Information Practice III** (Introduction to readership; introduction to management techniques and financial control; introduction to research methodology.)
- User Studies III** (The community survey; the community profile; importance of user studies in collection development and material selection.)
- Information Retrieval III** (Print and electronic reference sources including the Internet; the reference process; database construction; computer laboratory practicals.)
- Library and Information Technology III** (The digital library: evolution; strategic planning; funding and costs; collection and preservation; retrieval.)
- Experiential learning** (Fieldwork in a recognised library or information service; distributed over the three years as individual academic programmes require.)

12. Do you think that any of the above instructional offerings should be removed from the National Diploma programme? (Please tick the relevant option.)

- No
- Yes, please indicate which ones should be removed and provide reasons for this.**

13. Do you think that there are other aspects that should be brought into the National Diploma programme? (Please tick the relevant option.)

- No
- Yes, please indicate what these aspects are and why they should be included in the programme.**

Answer/Complete questions/items 14, 15 and 16 only if your library and/or information service has members of staff who have attained a Bachelor of Technology: Library and Information Studies in the last five years. Otherwise proceed to the section just before item 17.

14. **Bachelor of Technology: Library and Information Studies (B.Tech.: LIS)** - A national programme offered by technikons in South Africa at the fourth level of study after completion of the three-year National Diploma: Library and Information Studies/Services/Practice.

(Place your rating in the square provided - 1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

- Research Methodology** (Research planning and design; data collection; literature review; research techniques; writing research reports; research project.)
- Information Retrieval IV** (Theory and application of indexing, abstracting and thesaurus construction; web page design; online information retrieval.)
- Library and Information Practice IV** (Organisational theory, politics and culture; personnel management; strategic management.)
- Library and Information Technology IV** (Management of a digital library; advanced IT developments.)
- Information Management** (Role and importance of the information services department in an organisation; information resource management; fundamentals of information systems.)
- Readership for Semi-literates** (Literature and literary resources for adult learners; organisation and administration of adult literacy; policy issues affecting adult literacy.)

- Children's Library Practice** (Child development; children's literature; services offered by the children's library; management of the children's library.)
- Book Conservation** (The role of preservation in library management; the nature of library materials and agents of deterioration; techniques of conservation.)
- Information User Studies** (The information user: attitudes to information, information needs, information seeking behaviour.)
- Philosophy of Library and Information Science** (Different library and information science philosophers; influence of certain philosophical perspectives.)

15. Do you think that any of the above instructional offerings should be removed from the B.Tech. programme? (Please tick the relevant option.)

- No
- Yes, please indicate which ones should be removed and provide reasons for this.

16. Do you think that there are other aspects that should be brought into the B.Tech. programme? (Please tick the relevant option.)

- No
- Yes, please indicate what these aspects are and why they should be included in the programme.

Answer/Complete questions/items 17, 18 and 19 only if your library and/or information service has members of staff who have attained a Post-graduate Diploma in

***Information Studies (or equivalent post-graduate diploma) in the last five years.
Otherwise proceed to the section just before item 20.***

17. **Post-graduate Diploma in Information Studies (PGDIS)** - A programme offered at universities and also referred to at some universities as the Post-graduate Diploma in Library and Information Science. Offered at the fourth year level after completion of a bachelor's degree in any field.

(Place your rating in the square provided - 1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

- Bibliographic Description** (Theory, principles and application of descriptive cataloguing.)
- The Information Society** (LIS systems, products and services; introduction to the LIS profession; use of information in the contexts of development and globalisation.)
- Management of Libraries and Information Centres** (Management theories; basic principles of management and their application in libraries and information centres.)
- User Studies** (Information needs assessment and different user groups; basic research methodology in user studies; design of information literacy programmes.)
- Information Delivery Systems** (Visual displays; newspapers; repackaging information in pamphlet form; information delivery in rural areas.)
- Information Resource Management** (Fundamentals of information systems; evaluation and security and control of information systems.)
- Information Resources and Retrieval** (Principles and theory of reference and bibliographic work and services; the reference process; selection and evaluation of non-electronic and electronic reference and bibliographic tools.)
- Organisation of Information and Materials** (Subject analysis; classification; subject headings; indexing systems.)
- Automation of Libraries and Information Centres** (Computerisation of library operations; information resource sharing networks; various computer (LIS) packages in use.)

- Information and Communication Technologies** (Information processing and computers; basic computer configuration; operating systems; application software.)
- Databases and Database Production** (Categories and applications of databases and query languages; principles of database construction.)
- Records and Documents Management** (Components of records management programmes; setting up records management programmes; managing electronic records.)
- Strategic Planning** (Development of strategic plans; national development plans centred on the use of information.)
- Research** (Basic research methodology; research project.)
- Fieldwork and Practicals** (Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; visits to various libraries and information services; computer laboratory practicals for computer related aspects of instructional offerings.)

18. Do you think that any of the above instructional offerings should be removed from the Post-graduate Diploma programme? (Please tick the relevant option.)

- No
- Yes, **please indicate which ones should be removed and provide reasons for this.**

19. Do you think that there are other aspects that should be brought into the Post-graduate Diploma programme? (Please tick the relevant option.)

- No
- Yes, **please indicate what these aspects are and why they should be included in the programme.**

Answer/Complete questions/items 20, 21 and 22 only if your library and/or information service has members of staff who have attained a Bachelor of Library and Information Science (B.Bibl.) or a Bachelor of Information Science (B.Inf.), that is, a four-year university degree in library and/or information science, in the last five years. Otherwise proceed to question 23.

20. **Bachelor of Library and Information Science (B.Bibl.) or Bachelor of Information Science (B.Inf.)** - A four-year degree offered at universities called the B.Bibl. and more recently at some institutions, called the B.Inf. The programme generally consists of instructional offerings a certain number of which are Library Science and/or Information Science instructional offerings. Library Science and Information Science instructional offerings only are listed below for you to rate.

(Place your rating in the square provided -1=do not know; 2=not relevant; 3=uncertain; 4=relevant; 5=very relevant. Please write across the squares if you find them too small to fit your responses into.)

- Information Environment** (Different types of library and information services and agencies, both modern and traditional; information networks)
- Applied Record Studies** (Different kinds of records in information agencies: their history, characteristics, possible uses and their influence on information agencies and society in general.)
- Bibliographic Control** (Purpose, methods and application of bibliographic control.)
- Information Sources** (Contents of different types of printed, CD-ROM and Internet-based reference sources.)
- Information and Reference Services** (The reference interview; search strategies for manual, online and Internet searches.)
- Bibliographic Description** (Theory and practice of descriptive cataloguing.)

- Organisation of Information and Materials** (Theory and practice of subject analysis; classification; subject headings; indexing; thesaurus construction)
- Management of Libraries and Information Centres** (Management theories and their application to libraries and information centres.)
- Information Resource Management** (Fundamentals and management of information systems in organisations.)
- Collection Development** (Theory and practice in selection of information sources and other media; managing information collections, including serial collections, in the electronic era.)
- Research Methods** (Methods and techniques in conducting and reporting research on information needs, behaviour and services; research project.)
- User Studies** (Determining user needs and building information collections and services accordingly.)
- Information and Communication Technology Applications in LIS** (Electronic information organisation and retrieval; information retrieval from a selection of systems; database design.)
- Fieldwork and Practicals** (Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; computer laboratory practicals for computer related aspects of instructional offerings.)

Other instructional offerings available at certain universities (please rate these as well):

- Educational Information Services in Developing Countries**
- Children and Youth Library Services**
- Advanced Classification**
- Special Cataloguing**
- Computerised Cataloguing**
- Publishing, Printing and the Book Trade**

- Origins and Uses of Databases in Library and Information Services**
- Compilation of Bibliographies**

21. Do you think that any of the above instructional offerings should be removed from the four-year university degree programme? (Please tick the relevant option.)

- No
- Yes, please indicate which ones should be removed and provide reasons for this.**

22. Do you think that there are other aspects that should be brought into the four-year university degree programme? (Please tick the relevant option.)

- No
- Yes, please indicate what these aspects are and why they should be included in the programme.**

23. **General education**, which is sometimes referred to in the literature as liberal education or liberal arts education, attempts through a general bachelor's degree to provide an individual with a broad base of knowledge.

Do you think that such a general education as provided by a university bachelor's degree is essential in the provision of an efficient service in your current LIS environment? (Please tick the relevant option.)

- Yes, please explain why** _____
-
-
-

No, **please explain why**_____

24. Are there specific professional LIS job titles, such as **subject librarian** or **subject analyst**, in your current LIS service for which a general education is essential? (Please tick the relevant option.)

Yes, **please explain**_____

No, **please explain**_____

25. Are there specific professional LIS job titles in your current LIS environment for which a general education is **not** essential? (Please tick the relevant option.)

Yes, **please explain**_____

No, **please explain**_____

26. Items 11, 14, 17 and 20 of this questionnaire have outlined academic programmes that lead to first level IS qualifications offered by universities and technikons in South Africa. In view of these outlines as well as the employment requirements of your current work environment, what do you think are major **differences** between the technikons' National Diploma plus B.Tech. (four years) and the universities' bachelor's degree plus Post-graduate Diploma or B.Bibl./B.Inf. (four years)?

27. What do you think are major **similarities** between the technikons' National Diploma plus B.Tech. (four years) and the universities' bachelor's degree plus Post-graduate Diploma or B.Bibl./B.Inf. (four years)?

28. As a LIS employer/senior manager in your current LIS context, what in your opinion are **major strengths** of the **university based** library and/or information science qualifications?

29. As a LIS employer/senior manager in your current LIS context, what in your opinion are **major weaknesses** of the **university based** library and/or information science qualifications?

30. As a LIS employer/senior manager in your current LIS context, what in your opinion are **major strengths** of the **technikon based** library and/or information science qualifications?

31. As a LIS employer/senior manager in your current LIS context, what in your opinion are **major weaknesses** of the **technikon based** library and/or information science qualifications?

32. Do you think that there should be clearly defined professional and paraprofessional job titles in library and/or information services? (Please tick the relevant option.)

No, **please explain** _____

Yes

If your response is **yes**, what types of posts and job tasks should constitute:

Professional job titles?

Paraprofessional job titles?

33. In view of the programme outlines provided in items 11, 14, 17 and 20 as well as issues raised in subsequent questions/items, in what type of **entry level post** (professional or paraprofessional) would you, as a LIS employer/senior manager in your current LIS context, place individuals holding any of the following IS qualifications?

National Diploma: Library and Information Studies/Practice/Services.
(Please tick the relevant option.)

- Professional post
 Paraprofessional post

Bachelor of Technology: Library and Information Studies. (Please tick the relevant option.)

- Professional post
 Paraprofessional post

Post-graduate Diploma in Information Studies or an equivalent post-graduate diploma. (Please tick the relevant option.)

- Professional post
 Paraprofessional post

Bachelor of Library and Information Science or Bachelor of Information Science or an equivalent four-year university degree. (Please tick the relevant option.)

- Professional post
- Paraprofessional post

34. A recent trend at some South African universities has been to offer a three-year bachelor's degree with a major or specialising in, for example, Information Science. This major is broken up into a number of Information Science modules/instructional offerings/subjects/courses (hereafter in this question referred to as modules) that are spread over the three years (refer to Appendix A for examples). The balance of the modules are usually certain compulsory academic foundation modules such as computer literacy, language proficiency and academic skills as well as modules selected from general social and human science modules in terms of specific degree rules. According to these institutions these bachelor's degree programmes are aimed at positions in the wider information field. At some of these institutions this major subject or specialisation could be Library Science or Archival Science or Multimedia or Publishing or Information and Knowledge Management.

Do you think that these programmes, particularly those with Information Science or Library Science majors or specialisation, incorporate the fundamental elements leading to a first level **professional** IS qualification (refer to the section on definitions at the beginning of this questionnaire for the definition of **first level professional** IS qualification)? (Please tick the relevant option.)

- Yes
- No, **please explain** _____

35. The International Federation of Library Associations and Institutions – Section on Education and Training (IFLA-SET) has recently developed and adopted the *Guidelines for professional library/information educational programs* (2000). IFLA-SET has suggested in these guidelines that the following core elements should be included in an academic programme leading to a **first level professional library and/or information science qualification**:

- ◆ The Information Environment, Information Policy and Ethics, the History of the Field

- ◆ Information Generation, Communication and Use
- ◆ Assessing Information Needs and Designing Responsive Services
- ◆ The Information Transfer Process
- ◆ Organisation, Retrieval, Preservation and Conservation of Information
- ◆ Research, Analysis and Interpretation of Information
- ◆ Applications of Information and Communication Technologies to Library and Information Products and Services
- ◆ Information Resource Management and Knowledge Management
- ◆ Management of Information Agencies
- ◆ Quantitative and Qualitative Evaluation of Outcomes of Information and Library Use

Do you think that South African IS programmes leading to first level professional qualifications should include **all** these elements? (Please tick the relevant option.)

- Yes
- No, **please indicate which elements are not particularly necessary in the South African context.**

36. In addition to the core elements for first level professional IS programmes, IFLA-SET has also emphasised the need for adequate resources in the delivery of these programmes. It has suggested the following instructional resources and facilities:

- ◆ **Library resources:** These should be of sufficient depth, quantity and accessibility to support the programme offered. These should include monographs and serial publications, in print and electronic formats; a range of bibliographic tools to support teaching and research; and other appropriate media. A procedure for access to additional resources from other locations should be in place.
- ◆ **Information technology resources:** Computer hardware and software and multimedia resources should be available for students and teaching staff and be sufficient for the level of use required.
- ◆ **Internet resources:** Adequate connections to the Internet should allow ready access for students and teaching staff.
- ◆ **Physical facilities:** The programme's physical facilities should provide adequate support for students and teaching staff to accomplish their objectives.

What in your view would be the general resources required to deliver an appropriate programme leading to a first level professional IS qualification?

37. IFLA-SET has also emphasised the need for appropriately qualified and experienced academic staff in the delivery of first level professional IS programmes. In this regard it has suggested the following:

- ◆ Research-based competence in the designated teaching areas
- ◆ Technological proficiency
- ◆ Effectiveness in teaching
- ◆ A sustained record of scholarship
- ◆ Active participation in appropriate professional associations

What in your view would be academic staff requirements (in terms of qualification and experience) for the delivery of an appropriate programme leading to a first level professional IS qualification?

Thank you very much for your time and effort in completing this questionnaire. Please return the questionnaire to me **before the 22 May 2002** using the self-addressed and stamped/postage paid envelope. Those respondents (heads/deputies) who are providing job contents, please remember to enclose these as well.

Jaya Raju (Mrs)

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10 Manor Grove

Manor Gardens

Durban, 4001

Tel: 2611143

Cell: 083 555 0421

E-mail: rajur@nu.ac.za

APPENDIX A

There are various configurations of these bachelor's degree programmes on offer at certain universities. The two examples provided below are of three-year bachelors' degrees with a major or specialising in Library Science and Information Science. The examples are from two different universities. Brief descriptions are only provided for the library science and information science related modules/instructional offerings/subjects/courses (hereafter referred to as modules).

EXAMPLE ONE: Bachelor's degree specialising in Library Science:

The following are **compulsory foundation modules**:

Computer Literacy
Academic skills
Language Proficiency
Research

The following are **compulsory/core Library Science modules**:

Introduction to Information Services and Information Provision

Development of information services; information provision and information services in southern Africa; information infrastructure; national information policy.

User Studies (level 1)

Reading culture as a field of study; the reading process; the reader; motives for reading; effects of reading; promotion of reading and library use.

Introduction to the Use of Information Sources

Format of information sources; creation of information sources; types of information sources; use of selected printed and electronic information sources.

Information Services

Community organisation services; telecentres; public libraries; school libraries; national libraries; provincial libraries; academic libraries; special libraries; hybrid libraries; virtual information services.

User Studies (level 2)

Information needs; information seeking behaviour; user education; reader guidance; collection management; acquisition of sources; selection policy; evaluation and weeding; resource sharing.

Information and the Law

Legal Deposit Act; Copyright Act; Films and Publications Act; Promotion of Access to Information Act.

Subject Cataloguing

Classification; assigning subject headings; principles of indexing.

Information and Reference Services

Nature and development of reference services; organisation of information sources; actuality services; user education.

Cataloguing

Bibliographic control; bibliographic standards; catalogues; creation of bibliographic records; descriptive cataloguing.

Advanced Cataloguing

The online catalogue; exchange of bibliographic data; bibliographic formats; cataloguing of videos, CD-ROMs, serial publications and electronic sources.

Information in a Digital Environment

Significant aspects on the nature, organisation, storage, distribution, availability, accessibility, use and preservation of records of human knowledge in a digital environment.

Management of a Digital Information Service

The economics of management of digital information services; the management of various advanced information technologies.

Practical Work

Practical work at approved institutions under supervision.

The following are **compulsory/core Information Science modules**:

An Introduction to Information Science

Information in a development context; the lifecycle of information: processes, products and role players; description of the information mediator; introduction to value adding.

Information Presentation

Presentation and organisation of information: meta data, full text, multimedia, etc.; basic HTML and the creation of a web page.

Information Technology

Overview of computer hardware and software; telecommunication technology; LAN, WAN and the Intranet; the Internet and WWW.

Communication Media

The process of human communication; analyses of the communication process; mass communication (the elements and functions of mass media, various forms of mass media).

Information Use

Human factors involved in the use of information; the character and identification of information needs; value adding to support typical information activities.

Information Retrieval

Record databases; full-text databases; the end-user as information searcher; the use of natural and controlled language; electronic document delivery; the role of the mediator in information retrieval.

Infopreneurship and Information Ethics

Ethical issues applicable to the information professional; infopreneurship: the economic characteristics of information; how to start an own information business; legal and ethical aspects.

Publication Formats in the Digital Environment

Multimedia, hypermedia and hypertext fiction with reference to the theories of Landow, Nielsen, Aarseth and Negroponte; the influence the Internet and the WWW on the formats of publications.

Information Management

Tools and techniques of information management; strategy for information management in organisations; formulation and implementation of an information policy; information consultation.

Students must **select one of the following Information Science modules:**

System Development

Project planning and management; user needs analysis; system specifications; interface development.

Publishing (Editorial Handling of Information Products)

Personality profile of the copy-editor; levels of copy-editing; responsibilities of the copy-editor; proof-reading symbols and the mark-up of texts; legal and ethical aspects.

Communication Media

Evolution of the information society; the role of mass media in development; the use of mass media in Africa with specific reference to South African communication research.

Applied Information Ethics

Cyber ethics: the right to privacy, the right of access to information, intellectual property, confidential treatment of information, data security.

Students must **select two of the following Information Science modules**:

Multimedia

Study and application of multimedia and hypermedia; software and hardware; hypermedia systems; principles of constructing these databases; the creation of a multimedia and hypermedia database.

Information for Development

Literacy and information literacy; ICT and development; media for the provision of information to developing communities.

Publishing Practice

Processes involved in editorial project management; commissioning and list building; scheduling; the costing of information products; marketing and promotion.

Information: Socio-Political Context

Theories about the information society, globalisation and localisation and information poverty and information wealth.

Multimedia in the WWW environment

Multimedia in the WWW environment and mark-up languages such as HTML and XML; introduction to SGML, other document formats and electronic style specifications.

As part of the **core modules but not LIS related**, students must do:

Business Management

or

Entrepreneurship

The balance of the modules is **elective modules** (usually from the human and social sciences) of which students must **select twelve** according to specific degree rules.

Note: In the case of a bachelor's degree specialising in **Information Science** offered by the same institution, a similar configuration would be presented but the Library Science modules dropped in favour of **Informatics** modules and the inclusion of some **Computer Science** modules.

EXAMPLE TWO: Bachelor's degree with a major in Information Science:

Information Science is a compulsory major. A further major may be chosen from: Business Management; Communication Science; Development Studies; Economics; Geography and Environmental Management; Industrial Psychology; Informatics; Politics; Public Administration; Sociology.

At least four semester modules in two of the following must be done as **ancillaries**: Business Management; Communication Science; Development Studies; Economics; Geography and Environmental Management; Industrial Psychology; Informatics; Politics; Public Administration; Sociology.

The Information Science major is made up of the following modules:

Introduction to Information Science

The role of information in the development of an information society; information formats with emphasis on electronic information for decision-making.

Electronic Information Seeking

Internet and the WWW as information infrastructures; basic information retrieval and analysis by means of WWW search engines.

Introduction to Information Management

Nature and functions of information management; levels of information management; records management; information as a resource.

Value-adding to Information

Managers' use of information; competitive intelligence.

Digital Information Retrieval

Web site design for information organisation (criteria for evaluation, principles and techniques for design).

Fee-based Information Services

Online information retrieval systems (role players, commercial systems, retrieval techniques); advanced applications and evaluation of Web search engines.

Information Economy

Contribution of the information sector to the GNP; pricing of information; electronic commerce.

Information Entrepreneurship

Features of an entrepreneurial community; creating small business ideas; creation of a business plan; establishing an information enterprise.

WWW Management

Push technologies (features, applications, evaluation, case studies); WWW management (task analysis of the Web manager, information issues with regard to network security, Web monitoring and Web evaluation).

Intranet evaluation

Intranet content (taxonomy of corporate information sources; commercial intranet systems).

Strategic Information Management

Information for competitive advantage; integrated information management; information audit; information policy; environmental scanning; competitive intelligence.

Knowledge Management

Knowledge management (strategies, systems, leadership, staff, skills, structures, culture).

APPENDIX C

Questionnaire for Library and/or Information Science
Educators at Universities and Technikons

10 Manor Grove
Manor Gardens
Durban, 4001
____ April 2002
Tel: 2611143
Cell: 083 555 0421
E-mail: rajur@nu.ac.za

Dear _____

**Questionnaire for Library and/or Information Science Educators at Universities
and Technikons**

I am a doctoral student in the Human Sciences Faculty at the University of Natal and I am doing a comparative study of first level library and/or information science programmes and related qualifications at South African universities and technikons. Professor Andrew Kaniki from the University of Natal is the supervisor of my research.

This questionnaire is being sent to all educators in South Africa who are currently teaching in library and/or information science programmes at universities and technikons. The purpose of the questionnaire is to gather data regarding educators' views about first level library and/or information science qualifications at South African universities and technikons and their relevance to the library and/or information services (LIS) work environment.

There is confusion for those currently employed in library and/or information services, those who wish to become library and/or information professionals and those who want to employ library and/or information professionals as to what level of education and training is required for given posts in the LIS work environment. There is also lack of clarity among the majority of people associated with library and/or information services as to the relationship between university and technikon first level library and/or information science education and training. Library and/or information science educators as well need to decide what to teach, at what levels and for what types of posts in the work environment. This situation is not peculiar to South Africa, but a world wide one. However, countries such as the United States, the United Kingdom and Australia have in some way addressed the problem. The library and information services profession in South Africa needs to do the same. The situation is aggravated by the fact that technikons in South Africa, which had previously offered non-degree programmes only, have begun to offer programmes leading to degree qualifications. For these and many other reasons, a comparative study of first level library and/or information science qualifications in South Africa needs to be undertaken. It is hoped that this study will provide guidance to employers, students and educators regarding education and training as well as employment in the LIS field.

It would be much appreciated if you could spare some time to complete this questionnaire fully and honestly. The information provided in this survey will be treated in strict confidence and will be used for academic purposes only. This questionnaire should be completed by **all** academics (lecturers, senior lecturers, heads of library and/or information science academic departments or programmes, etc.) involved in teaching and/or coordinating library and/or information science academic programmes at universities and technikons in South Africa.

I will be most grateful if you could complete the questionnaire and return it to me at your earliest convenience, but **before the 22 May 2002**. Please find enclosed a self-addressed and stamped/postage paid envelope.

Thank you for your co-operation.

Yours sincerely

Jaya Raju (Senior Lecturer: Department of Library and Information Studies, M.L. Sultan Technikon)

**FIRST LEVEL LIBRARY AND/OR INFORMATION SCIENCE
QUALIFICATIONS AT SOUTH AFRICAN UNIVERSITIES AND
TECHNIKONS: A COMPARATIVE STUDY OF CURRICULA**

**Questionnaire for Library and/or Information Science Educators at Universities
and Technikons**

General instructions:

- *Please answer/complete the following questions/items fully.*
- *You may not be required to answer/complete all questions/items but only those applicable to you.*
- *Tick the relevant option(s) where necessary. In some instances you may be required to tick more than one option.*
- *Place ticks in the squares provided. Please write across the squares if you find them too small to fit your responses into.*
- *Should you require additional space to write your answer(s) or comment(s), please use additional paper and attach it to the questionnaire.*

Important definitions:

*The terms **programme** and **qualification** are used frequently in this questionnaire. It is important for you to be clear about these concepts. Definitions of these and other related terms as they are used in this questionnaire, are therefore provided here:*

*An academic **programme** is a purposeful and structured set of learning experiences designed to enable students to achieve pre-specified outcomes, that is, what the student is able to do at the end of the learning experience. This coherent combination of learning experiences leads to a **qualification**, which may be defined as the certification of the attainment of the learning outcomes of a particular learning programme. A **first level library and/or information science qualification** is a **beginning** library and/or information science qualification that affords individuals entry into the library and/or information services work environment where the work can be at the professional or the paraprofessional level. A **first level professional library and/or information science qualification** is a beginning qualification that affords individuals entry into the Library and/or information services work environment at a **professional level**.*

General note:

*Please note that in this questionnaire the term **library and/or information services** refers to library and information services specifically, as well as to information services generally. This term is, for the sake of brevity, abbreviated in certain places as LIS. The term **Library and/or information science** refers to library and information science/studies as well as information science/studies (that is, the discipline). This term is, again for the sake of brevity, abbreviated in certain places as IS.*

1. What is the name of the institution at which you teach? (e.g. Technikon South Africa) _____
2. What is the name of the academic department or programme that you teach in? (e.g. Department of Information Science or Information Studies Programme) _____
3. In which school and/or faculty is this department/programme located? _____
4. What is your designation in the above institution? (e.g. Lecturer, Senior Lecturer, Head of Department) _____
5. What are your academic and professional qualifications? _____
6. When (the year) and where (the institution) did you attain your highest library and/or information science academic or professional qualification? _____
7. Does your department/programme offer library and/or information science programmes that lead to any of the following qualifications? (Please tick the relevant options. You may tick more than one option.)
 - National Diploma: Library and Information Studies/Practice/Services (ND: LIS)
 - Bachelor of Technology: Library and Information Studies (B.Tech.: LIS)
 - Higher Diploma in Library Science (HDLS) or Advanced University Diploma in Information Studies (AUDIS) or Post-graduate Diploma in Information Studies (PGDIS) or equivalent post-graduate diploma
 - Bachelor of Library and Information Science (B.Bibl.) or Bachelor of Information Science (B.Inf.) or equivalent four-year university degree
 - Bachelor's degree (three years) with a major or specialising in Library Science
 - Bachelor's degree (three years) with a major or specialising in Information Science
 - Bachelor's degree (three years) with a major or specialising in any other area. (Please specify the area _____)

- Other first level (refer to the section on definitions at the beginning of this questionnaire for the definition of **first level**) library and/or information science related qualification (Please specify _____)

(If you are not a coordinator or programme leader of a first level IS programme or the head of an IS department/programme, please proceed to question 10.)

Items 8 and 9 that follow, should only be completed by coordinators or programme leaders of first level IS programmes or by heads of IS departments/programmes. Other respondents please proceed to question 10.

8. Please indicate the **average** numbers of students registered in the last five years (1998-2002) for each level of study in programme(s) leading to qualification(s) that you have indicated in question 7.

For example: ND: LIS: first level/first year (50 students)
second level/second year (40 students)
third level/third year (35 students)

9. The International Federation of Library Associations and Institutions – Section on Education and Training (IFLA-SET) has recently developed and adopted the *Guidelines for professional library/information educational programs* (2000). IFLA-SET has suggested in these guidelines that the following core elements should be included in an academic programme leading to a **first level professional library and/or information science qualification**:

- ◆ The Information Environment, Information Policy and Ethics, the History of the Field
- ◆ Information Generation, Communication and Use
- ◆ Assessing Information Needs and Designing Responsive Services
- ◆ The Information Transfer Process
- ◆ Organisation, Retrieval, Preservation and Conservation of Information

11. Are there any other LIS elements that are not listed in the IFLA-SET guidelines (refer to item 9) but that you feel must form part of the core library and/or information science curriculum? (Please tick the relevant option.)

- No
- Yes, **please indicate what these elements are and explain why you think they should be part of the core elements.**

12. Do(es) the programme(s) leading to qualification(s) that you have indicated in question 7 have a particular focus that you see as a niche area for your particular department/programme? (Please tick the relevant option.)

- No
- Yes, **how would you categorise this niche area? (e.g. Digital librarianship/information work, Rural librarianship)**

13. IFLA-SET has also suggested that methods of teaching and assessment should be designed to develop or enhance the following skills:

- ◆ Interpersonal communication skills
- ◆ Ability to work in teams
- ◆ Time and task management skills
- ◆ Analytical and problem-solving skills

Do you think these are important skills that are necessary to be built into your teaching and assessment methods? (Please tick the relevant option.)

- Yes, **please explain** _____
-
-
-

- No, **please explain** _____
-
-
-

14. Are there **other** skills for first level professional IS qualifications, apart from those suggested by IFLA-SET, that you feel are essential and/or have built into your teaching and assessment methods?

No

Yes, **please explain** _____

15. IFLA-SET has suggested that the following instructional resources and facilities should be available to support the delivery of the academic programme to students:

- ◆ **Library resources:** These should be of sufficient depth, quantity and accessibility to support the programme offered. These should include monographs and serial publications, in print and electronic formats; a range of bibliographic tools to support teaching and research; and other appropriate media. A procedure for access to additional resources from other locations should be in place.
- ◆ **Information technology resources:** Computer hardware and software and multimedia resources should be available for students and teaching staff and be sufficient for the level of use required.
- ◆ **Internet resources:** Adequate connections to the Internet should allow ready access for students and teaching staff.
- ◆ **Physical facilities:** The programme's physical facilities should provide adequate support for students and teaching staff to accomplish their objectives.

Do you think **all** these are important instructional resources and facilities that are necessary to support the delivery of the academic programme? (Please tick the relevant option.)

Yes

No, **please explain** _____

16. Do(es) the first level IS programme(s) that your department/programme offers have **all** the instructional resources and facilities suggested by IFLA-SET? (Please tick the relevant option.)

No, **please explain** _____

Yes, please explain what instructional resources and facilities your department/programme has.

17. Do you think that there are **other** key instructional resources and facilities that should be added to the list suggested by IFLA-SET? (Please tick the relevant option.)

No

Yes, please explain _____

18. IFLA-SET also suggests that academic staff teaching in a first level professional IS programme should be sufficient to accomplish programme objectives. Furthermore, the qualification of each full-time faculty member should include:

- ◆ Research-based competence in the designated teaching areas
- ◆ Technological proficiency
- ◆ Effectiveness in teaching
- ◆ A sustained record of scholarship
- ◆ Active participation in appropriate professional associations

Do you think that **all** these requirements are necessary in the South African context? (Please tick the relevant option.)

Yes, please explain _____

- No, please explain _____

Question 19 that follows, should only be answered by coordinators or programme leaders of first level IS programmes or by heads of IS departments/programmes. Other respondents please proceed to the section just before question 20.

19. Do you feel confident that the full-time faculty members teaching in your department/programme adequately meet the requirements suggested by IFLA-SET? (Please tick the relevant option?)

- Yes, please explain _____

- No, please explain _____

Appendix A outlines academic programmes that lead to first level library and/or information science qualifications offered by universities and technikons in South Africa. *Refer to Appendix A and answer questions 20 to 23.*

20. What do you think are major **differences** between the technikons' National Diploma plus B.Tech. (four years) and the universities' bachelor's degree plus Post-graduate Diploma or B.Bibl./B.Inf. (four years)?

21. What do you think are major **similarities** between the technikons' National Diploma plus B.Tech. (four years) and the universities' bachelor's degree plus Post-graduate Diploma or B.Bibl./B.Inf. (four years)?

22. **Articulation** is the ability of an education system to allow students pursuing similar education and training programmes to move laterally and vertically between different types of institutions offering similar and/or different level programmes in the same field(s).

Do you see any possibilities for articulation between university and technikon library and/or information science education and training, that is, upon attainment of one qualification e.g. ND: LIS or B. Tech.: LIS, and moving to another type of institution for a higher qualification? (Please tick the relevant option.)

Yes, please explain how _____

No, please explain why _____

23. Do you see any possibilities for articulation of programmes between a university and a technikon while one is in the midst of doing a library and/or information science programme e.g. between a B.Tech: LIS and a B.Bibl.? (Please tick the relevant option.)

Yes, please explain how _____

No, please explain why _____

24. **General education**, which is sometimes referred to in the literature as liberal education or liberal arts education, attempts through a general bachelor's degree to provide an individual with a broad base of knowledge.

Do you think that such a general education as provided by a university bachelor's degree is essential in the provision of an efficient library and/or information service? (Please tick the relevant option.)

Yes, please explain why _____

No, please explain why _____

25. Do you think there are specific professional LIS job titles, such as **subject librarian** or **subject analyst**, for which a general education is essential? (Please tick the relevant option.)

Yes, please explain _____

No, please explain _____

26. Do you think there are specific professional LIS job titles for which a general education is **not** essential? (Please tick the relevant option.)

Yes, please explain _____

No, please explain _____

27. Do you think it is necessary for the technician IS programme, specifically the ND: LIS (refer to Appendix A), to incorporate general education? (Please tick the relevant option.)

No, please explain why _____

(Please proceed to question 29)

Yes, please explain why _____

(Please continue with question 28)

28. If your response to question 27 is **yes**, how would you suggest the incorporation of general education into the technikon National Diploma: Library and Information Studies? (Please refer to current instructional offerings as described in Appendix A)

29. Do you think that there should be clearly defined professional and paraprofessional job titles in library and/or information services? (Please tick the relevant option.)

No, please explain _____

Yes

If your response is **yes**, what types of posts and job tasks should constitute:

Professional titles?

Paraprofessional titles?

A recent trend at some South African universities has been to offer a three-year bachelor's degree with a major or specialising in, for example, Information Science. This major is broken up into a number of Information Science modules/instructional offerings/subjects/courses (hereafter referred to as modules) that are spread over the three years (refer to Appendix B for examples). The balance of the modules are usually certain compulsory academic foundation modules such as computer literacy, language proficiency and academic skills as well as modules selected from general social and human science modules in terms of specific degree rules.

Please answer questions 30, 31 and 32 only if your department/programme offers such a three-year bachelor's degree. The questionnaire ends here for other respondents. Thank you for your participation.

30. What job market are these programmes aimed at?

31. Based primarily on the content of the programmes and secondarily, on the time taken for completion (three years instead of the traditional four years), at which level of library and/or information service entry point would you locate the three-year bachelor's degree graduates? (Please tick the appropriate option.)

- Professional level
- Paraprofessional level
- Other, please specify _____

Please explain your response _____

32. Can the three-year bachelor's degree graduates be admitted to senior IS programmes such as the honours and masters' programmes to which usually persons with a PGDIS or B.Bibl. and other equivalent four-year qualifications, are admitted? (Please tick the appropriate option.)

Yes, please explain _____

No, please explain _____

Thank you very much for your time and effort in completing this questionnaire. Please return the questionnaire to me **before the 22 May 2002** using the self-addressed and stamped/postage paid envelope.

Jaya Raju (Mrs)
© 2002

10 Manor Grove
Manor Gardens
Durban, 4001
Tel: 2611143
Cell: 083 555 0421
E-mail: rajur@nu.ac.za

APPENDIX A

The list of instructional offerings/subjects/courses/modules (hereafter in this appendix referred to as instructional offerings) together with brief descriptions provided, are based on information available from library and/or information science academic departments' web sites, departmental handbooks and prospectuses of institutions. Among the various academic departments there are slight differences in terminology used in academic programmes, content of the instructional offerings, levels at which certain aspects of the programme are offered and other minor differences. For the purposes of this questionnaire, these minor differences are immaterial as long as all existing instructional offerings have been reflected as being part of the programme leading to a first level library and/or information science qualification.

National Diploma: Library and Information Studies (ND: LIS) - A three-year national programme offered by technikons in South Africa. Previously referred to as the National Diploma: Library and Information Practice or Services.

- Library and Information Practice I** (Various information environments and their aims and functions; the LIS profession; legislation affecting information provision.)
- Information Retrieval I** (Bibliographic control tools and processes; reference sources; OPAC searches.)
- Library and Information Technology I** (Office equipment; formats of recorded information; ergonomics and library/office safety; computer laboratory practicals.)
- User Studies I** (Importance of User Studies to the LIS worker; the reading process; reading motives, needs and interests; reader typology.)
- End-user Computing** (Computer types, hardware and software; keyboard skills; operating systems and environments; software packages; computer laboratory practicals.)
- Human Studies** (History and appreciation of art and music; orientation to science and technology; societal themes.)
- English** (Communication theory; correspondence; oral communication; intercultural communication.)
- Afrikaans** (Correspondence; engaging with Afrikaans texts; basic discussion on topical issues.)

- **IsiZulu or IsiXhosa or any other African language that is offered** (Intercultural communication; oral communication; writing skills.)
- **Library and Information Practice II** (The book trade and publishing; collection development; acquisitions procedures; serials control; library administration.)
- **Library and Information Retrieval II** (Subject analysis; descriptive cataloguing; classification; subject headings; introduction to indexing, abstracting and thesaurus construction.)
- **Library and Information Technology II** (General purpose application software; library specific databases; database management systems; search technology and software; networks; computer laboratory practicals.)
- **User Studies II** (The adult reader; the neo-literate reader; the child as a reader; the teenage reader; library services for these various categories of readers; user education.)
- **Literature Studies** (History and appreciation of: children's literature; African literature and African literature in English; English literature.)
- **Psychology in Organisations** (The value and application of psychology in libraries and information centers.)
- **Library Promotion** (Marketing the library; press relations and public relations programmes; library publications; material and techniques in library promotion.)
- **Information Practice III** (Introduction to readership; introduction to management techniques and financial control; introduction to research methodology.)
- **User Studies III** (The community survey; the community profile; importance of user studies in collection development and material selection.)
- **Information Retrieval III** (Print and electronic reference sources including the Internet; the reference process; database construction; computer laboratory practicals)
- **Library and Information Technology III** (The digital library: evolution; strategic planning; funding and costs; collection and preservation; retrieval.)

- **Experiential learning** (Fieldwork in a recognised library or information service; distributed over the three years as individual academic programmes require.)

Bachelor of Technology: Library and Information Studies (B.Tech.: LIS) - A national programme offered by technikons in South Africa at the fourth level of study after completion of the three-year National Diploma: Library and Information Studies/ Practice/Services.

- **Research Methodology** (Research planning and design; data collection; literature review; research techniques; writing research reports; research project.)
- **Information Retrieval IV** (Theory and application of indexing, abstracting and thesaurus construction; web page design; online information retrieval.)
- **Library and Information Practice IV** (Organisational theory, politics and culture; personnel management; strategic management.)
- **Library and Information Technology IV** (Management of a digital library; advanced IT developments.)
- **Information Management** (Role and importance of the information services department in an organisation; information resource management; fundamentals of information systems.)
- **Readership for Semi-literates** (Literature and literary resources for adult students; organisation and administration of adult literacy; policy issues affecting adult literacy.)
- **Children's Library Practice** (Child development; children's literature; services offered by the children's library; management of the children's library.)
- **Book Conservation** (The role of preservation in library management; the nature of library materials and agents of deterioration; techniques of conservation.)
- **Information User Studies** (The information user: attitudes to information, information needs, information seeking behaviour.)
- **Philosophy of Library and Information Science** (Different library and information science philosophers; influence of certain philosophical perspectives.)

Post-graduate Diploma in Information Studies (PGDIS) - A programme offered at universities and also referred to at some universities as the Post-graduate Diploma in Library and Information Science. Offered at the fourth year level after completion of a bachelor's degree in any field.

- Bibliographic Description** (Theory, principles and application of descriptive cataloguing.)
- The Information Society** (LIS systems, products and services; introduction to the LIS profession; use of information in the contexts of development and globalisation.)
- Management of Libraries and Information Centres** (Management theories; basic principles of management and their application in libraries and information centres.)
- User Studies** (Information needs assessment and different user groups; basic research methodology in user studies; design of information literacy programmes.)
- Information Delivery Systems** (Visual displays; newspapers; repackaging information in pamphlet form; information delivery in rural areas.)
- Information Resource Management** (Fundamentals of information systems; evaluation and security and control of information systems.)
- Information Resources and Retrieval** (Principles and theory of reference and bibliographic work and services; the reference process; selection and evaluation of non-electronic and electronic reference and bibliographic tools.)
- Organisation of Information and Materials** (Subject analysis; classification; subject headings; indexing systems.)
- Automation of Libraries and Information Centres** (Computerisation of library operations; information resource sharing networks; various computer (LIS) packages in use.)

- **Information and Communication Technologies** (Information processing and computers; basic computer configuration; operating systems; application software.)
- **Databases and Database Production** (Categories and applications of databases and query languages; principles of database construction.)
- **Records and Documents Management** (Components of records management programmes; setting up records management programmes; managing electronic records.)
- **Strategic Planning** (Development of strategic plans; national development plans centred on the use of information.)
- **Research** (Basic research methodology; research project.)
- **Fieldwork and Practicals** (Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; visits to various libraries and information services; computer laboratory practicals for computer related aspects of instructional offerings.)

Bachelor of Library and Information Science (B.Bibl.) or Bachelor of Information Science (B.Inf.) - A four-year degree offered at universities called the B.Bibl. and more recently at some institutions, called the B.Inf. The programme generally consists of instructional offerings a certain number of which are Library Science and/or Information Science instructional offerings. Library Science and Information Science instructional offerings only are listed below.

- **Information Environment** (Different types of library and information services and agencies, both modern and traditional; information networks)
- **Applied Record Studies** (Different kinds of records in information agencies: their history, characteristics, possible uses and their influence on information agencies and society in general.)
- **Bibliographic Control** (Purpose, methods and application of bibliographic control.)
- **Information Sources** (Contents of different types of printed, CD-ROM and Internet-based reference sources.)
- **Information and Reference Services** (The reference interview; search strategies for manual, online and Internet searches.)

- Bibliographic Description** (Theory and practice of descriptive cataloguing.)
- Organisation of Information and Materials** (Theory and practice of subject analysis; classification; subject headings; indexing; thesaurus construction)
- Management of Libraries and Information Centres** (Management theories and their application to libraries and information centres.)
- Information Resource Management** (Fundamentals and management of information systems in organisations.)
- Collection Development** (Theory and practice in selection of information sources and other media; managing information collections, including serial collections, in the electronic era.)
- Research Methods** (Methods and techniques in conducting and reporting research on information needs, behaviour and services; research project.)
- User Studies** (Determining user needs and building information collections and services accordingly.)
- Information and Communication Technology Applications in LIS** (Electronic information organisation and retrieval; information retrieval from a selection of systems; database design.)
- Fieldwork and Practicals** (Regular sessions of hands-on work in the campus library on the various processes and procedures of the library; placement in a recognised library or information service; computer laboratory practicals for computer related aspects of instructional offerings.)

Other instructional offerings available at certain universities:

- Educational Information Services in Developing Countries**
- Children and Youth Library Services**
- Advanced Classification**
- Special Cataloguing**
- Computerised Cataloguing**

- **Publishing, Printing and the Book Trade**
- **Origins and Uses of Databases in Library and Information Services**
- **Compilation of Bibliographies**

APPENDIX B

There are various configurations of these bachelor's degree programmes on offer at certain universities. The two examples provided below are of three-year bachelors' degrees with a major or specialising in Library Science and Information Science. The examples are from two different universities. Brief descriptions are only provided for the library science and information science related modules/instructional offerings/courses/subjects (hereafter in this appendix referred to as modules).

EXAMPLE ONE: Bachelor's degree specialising in Library Science:

The following are **compulsory foundation modules**:

Computer Literacy
Academic skills
Language Proficiency
Research

The following are **compulsory/core Library Science modules**:

Introduction to Information Services and Information Provision

Development of information services; information provision and information services in southern Africa; information infrastructure; national information policy.

User Studies (level 1)

Reading culture as a field of study; the reading process; the reader; motives for reading; effects of reading; promotion of reading and library use.

Introduction to the Use of Information Sources

Format of information sources; creation of information sources; types of information sources; use of selected printed and electronic information sources.

Information Services

Community organisation services; telecentres; public libraries; school libraries; national libraries; provincial libraries; academic libraries; special libraries; hybrid libraries; virtual information services.

User Studies (level 2)

Information needs; information seeking behaviour; user education; reader guidance; collection management; acquisition of sources; selection policy; evaluation and weeding; resource sharing.

Information and the Law

Legal Deposit Act; Copyright Act; Films and Publications Act; Promotion of Access to Information Act.

Subject Cataloguing

Classification; assigning subject headings; principles of indexing.

Information and Reference Services

Nature and development of reference services; organisation of information sources; actuality services; user education.

Cataloguing

Bibliographic control; bibliographic standards; catalogues; creation of bibliographic records; descriptive cataloguing.

Advanced Cataloguing

The online catalogue; exchange of bibliographic data; bibliographic formats; cataloguing of videos, CD-ROMs, serial publications and electronic sources.

Information in a Digital Environment

Significant aspects on the nature, organisation, storage, distribution, availability, accessibility, use and preservation of records of human knowledge in a digital environment.

Management of a Digital Information Service

The economics of management of digital information services; the management of various advanced information technologies.

Practical Work

Practical work at approved institutions under supervision.

The following are **compulsory/core Information Science modules**:

An Introduction to Information Science

Information in a development context; the lifecycle of information: processes, products and role players; description of the information mediator; introduction to value adding.

Information Presentation

Presentation and organisation of information: meta data, full text, multimedia, etc.; basic HTML and the creation of a web page.

Information Technology

Overview of computer hardware and software; telecommunication technology; LAN, WAN and the Intranet; the Internet and WWW.

Communication Media

The process of human communication; analyses of the communication process; mass communication (the elements and functions of mass media, various forms of mass media).

Information Use

Human factors involved in the use of information; the character and identification of information needs; value adding to support typical information activities.

Information Retrieval

Record databases; full-text databases; the end-user as information searcher; the use of natural and controlled language; electronic document delivery; the role of the mediator in information retrieval.

Infopreneurship and Information Ethics

Ethical issues applicable to the information professional; infopreneurship: the economic characteristics of information; how to start an own information business; legal and ethical aspects.

Publication Formats in the Digital Environment

Multimedia, hypermedia and hypertext fiction with reference to the theories of Landow, Nielsen, Aarseth and Negroponte; the influence the Internet and the WWW on the formats of publications.

Information Management

Tools and techniques of information management; strategy for information management in organisations; formulation and implementation of an information policy; information consultation.

Students must **select one of the following Information Science modules:**

System Development

Project planning and management; user needs analysis; system specifications; interface development.

Publishing (Editorial Handling of Information Products)

Personality profile of the copy-editor; levels of copy-editing; responsibilities of the copy-editor; proof-reading symbols and the mark-up of texts; legal and ethical aspects.

Communication Media

Evolution of the information society; the role of mass media in development; the use of mass media in Africa with specific reference to South African communication research.

Applied Information Ethics

Cyber ethics: the right to privacy, the right of access to information, intellectual property, confidential treatment of information, data security.

Students must **select two of the following Information Science modules**:

Multimedia

Study and application of multimedia and hypermedia; software and hardware; hypermedia systems; principles of constructing these databases; the creation of a multimedia and hypermedia database.

Information for Development

Literacy and information literacy; ICT and development; media for the provision of information to developing communities.

Publishing Practice

Processes involved in editorial project management; commissioning and list building; scheduling; the costing of information products; marketing and promotion.

Information: Socio-Political Context

Theories about the information society, globalisation and localisation and information poverty and information wealth.

Multimedia in the WWW environment

Multimedia in the WWW environment and mark-up languages such as HTML and XML; introduction to SGML, other document formats and electronic style specifications.

As part of the **core modules but not LIS related**, students must do:

Business Management

or

Entrepreneurship

The balance of the modules is **elective modules** (usually from the human and social sciences) of which students must **select twelve** according to specific degree rules.

Note: In the case of a bachelor's degree specialising in **Information Science** offered by the same institution, a similar configuration would be presented but the Library Science modules dropped in favour of **Informatics** modules and the inclusion of some **Computer Science** modules.

EXAMPLE TWO: Bachelor's degree with a major in Information Science:

Information Science is a compulsory major. A further major may be chosen from: Business Management; Communication Science; Development Studies; Economics; Geography and Environmental Management; Industrial Psychology; Informatics; Politics; Public Administration; Sociology.

At least four semester modules in two of the following must be done as **ancillaries**: Business Management; Communication Science; Development Studies; Economics; Geography and Environmental Management; Industrial Psychology; Informatics; Politics; Public Administration; Sociology.

The Information Science major is made up of the following modules:

Introduction to Information Science

The role of information in the development of an information society; information formats with emphasis on electronic information for decision-making.

Electronic Information Seeking

Internet and the WWW as information infrastructures; basic information retrieval and analysis by means of WWW search engines.

Introduction to Information Management

Nature and functions of information management; levels of information management; records management; information as a resource.

Value-adding to Information

Managers' use of information; competitive intelligence.

Digital Information Retrieval

Web site design for information organisation (criteria for evaluation, principles and techniques for design).

Fee-based Information Services

Online information retrieval systems (role players, commercial systems, retrieval techniques); advanced applications and evaluation of Web search engines.

Information Economy

Contribution of the information sector to the GNP; pricing of information; electronic commerce.

Information Entrepreneurship

Features of an entrepreneurial community; creating small business ideas; creation of a business plan; establishing an information enterprise.

WWW Management

Push technologies (features, applications, evaluation, case studies); WWW management (task analysis of the Web manager, information issues with regard to network security, Web monitoring and Web evaluation).

Intranet evaluation

Intranet content (taxonomy of corporate information sources; commercial intranet systems).

Strategic Information Management

Information for competitive advantage; integrated information management; information audit; information policy; environmental scanning; competitive intelligence.

Knowledge Management

Knowledge management (strategies, systems, leadership, staff, skills, structures, culture).

APPENDIX D

Covering letter to LIS services employers

25 April 2002

Dear Sir/Madam

Questionnaire for Library and/or Information Science Graduates and Diplomates from Universities and Technikons

I am a doctoral student in the Human Sciences Faculty at the University of Natal and I am doing a comparative study of first level library and/or information science programmes and related qualifications at South African universities and technikons. Professor Andrew Kaniki from the University of Natal is the supervisor of my research.

Questionnaires are being sent to past students who have graduated in the last five years with a first level library and/or information science qualification and who are currently employed in library and/or information services. The purpose of the questionnaire is to gather data regarding past students' views about first level library and/or information science qualifications at South African universities and technikons and their relevance to the library and/or information services (LIS) work environment.

It would be much appreciated if you could **distribute these questionnaires to any five/ten staff members who have in the last five years completed any of the following LIS qualifications:**

- National Diploma: Library and Information Studies/Practice/Services (ND: LIS)
- Bachelor of Technology: Library and Information Studies (B.Tech.: LIS)
- Higher Diploma in Library Science (HDLS) or Advanced University Diploma in Information Studies (AUDIS) or Post-graduate Diploma in Information Studies (PGDIS) or equivalent post-graduate diploma
- Bachelor of Library and Information Science (B.Bibl.) or Bachelor of Information Science (B.Inf.) or equivalent four-year university degree
- Any other first level library and/or information science qualification.

If you require additional questionnaires please do not hesitate to call me and I will e-mail additional copies for distribution.

I will be most grateful if respondents could complete the questionnaire and return it to me at their earliest convenience, but **before the 22 May 2002**. Enclosed in each envelope together with the questionnaire is a self-addressed and stamped/postage paid envelope.

Thank you for your co-operation.

Yours sincerely

Jaya Raju (Senior Lecturer: Department of Library and Information Studies, M.L. Sultan Technikon)

APPENDIX E

Job Contents

Job Contents

Job title	Qualification requirements	Key functions	Type of LIS service
Library Assistant	Information not provided	<ol style="list-style-type: none"> 1. Processing new and rebound material 2. Providing relief at information desk/reserved book section 3. Registration of membership 4. Collection maintenance - stock take 	Academic library - technikon
Library Assistant: Circulation	Information not provided	<ol style="list-style-type: none"> 1. Issuing and receiving material from the main and reserved collections 2. Compiling displays 3. Providing directional/ready reference queries 4. Providing assistance - use of computer 	Academic library - technikon
Library Assistant: Circulation	Matriculation	<ol style="list-style-type: none"> 1. Issuing and receiving material 2. Dealing with membership 3. Administrative tasks 	Academic library - technikon
Circulation Officer	Information not provided	<ol style="list-style-type: none"> 1. Supervision of circulation processes 2. Assisting with specific tasks including the issuing, receiving, renewing, recalling of material 3. Registration of library users 4. Supervision of the photocopying facilities 5. Administrative (supervisory) tasks 6. Training of staff/student assistants 	Academic library - technikon
Library Circulation Supervisor	ND: LIS	<ol style="list-style-type: none"> 1. Managing the branch library and the circulation procedures of the library 2. Assisting users and promoting the library 3. Supervising circulation staff and student assistants 4. General administrative tasks 	Academic library - technikon
Senior Library Assistant	Lower Diploma in Library and Information Science or equivalent	<ol style="list-style-type: none"> 1. Copy cataloguing of library material 2. Authority control 3. Quality control 4. Spine marking 5. Database management - keeping the database up-to-date 	Academic library - university
Senior Library Assistant: Supervision of Circulation	ND: LIS or B. degree	<ol style="list-style-type: none"> 1. Supervising the library's circulation staff 2. Administering the circulation system 3. Supervising the overdue process 4. Collection maintenance 	Academic library - university
Senior Library Assistant: ILL	ND: LIS or B. degree	<ol style="list-style-type: none"> 1. Supervising the clerical staff in the Unit 2. Performing activities related to ILL (borrowing/lending material nationally and internationally) 	Academic library - university
Senior Library Assistant	ND: LIS	<ol style="list-style-type: none"> 1. Rendering a library and information service to children and young adults 2. Controlling the lending service of the children's section - issuing and receiving material 	Public library

		3. Planning, organising and rendering cultural programmes, story hours and other programmes to stimulate reading and develop communication skills of children	
Principal Library Assistant: A/V	ND: LIS	1. Ensuring that all audio visual-equipment in the library is well maintained and functioning, and assisting in this respect with multi-media computers 2. Ensuring adequate provision of all audio-visual equipment for use in the library 3. Contributing to collection management and quality control of the A/V collection 4. Promoting the A/V collection 5. General duties	Academic library - technikon
Assistant Librarian: Reserve	Information not provided	1. Supervision of staff and duties of the Reserve Department 2. Maintaining manual and automated circulation reserve collection 3. Training of staff	Academic library - technikon
Assistant Librarian: Periodicals	Information not provided	1. Controlling journal subscriptions 2. Recording issues received and marking off in kardex 3. Claiming un-received issues 4. Providing assistance to users requesting assistance using the periodicals department 5. Deputising in the absence of the periodicals librarian	Academic library - technikon
ILL Librarian	B.Bibl./Post-graduate diploma/B.Tech(LIS)	1. Managing the ILL system 2. Performing activities related to ILL (borrowing/lending material at national/international level)	Academic library - technikon
Librarian	Information not provided	1. Section management 2. Control of public services 3. Control of administration 4. Control of staff 5. Control of assets 6. Information service 7. Education support 8. Preservation 9. Needs determination 10. Networking external organizations (area of specialisation) 11. Counter management 12. Reader's guidance 13. Programmes 14. Customer care 15. In-service training 16. Media collection development	Public library
Librarian: Cataloguing Supervisor	Information not provided	1. Supervising and guiding staff in the cataloguing section 2. Administrative managerial tasks 3. Ensuring high professional standards of cataloguing 4. Checking the cataloguing of staff in training	Provincial library service

		<ol style="list-style-type: none"> 5. Maintaining author authority file 6. Attending and holding staff meetings 7. Delegating work 	
Librarian: Cataloguing	Information not provided	<ol style="list-style-type: none"> 1. Cataloguing, classifying and assigning subject headings 2. Checking and correcting own on-line cataloguing 3. Assisting with training of affiliated librarians 	Provincial library service
Cataloguer	B.Bibl. or equivalent	<ol style="list-style-type: none"> 1. Original and copy cataloguing 2. Authority control 3. Quality control 4. Spine marking 5. Database management 6. Serving on cataloguing related committees and user groups 7. Deputising for section head 	Academic library - university
Cataloguing Librarian	Bachelor's degree (B.A.)	<ol style="list-style-type: none"> 1. Cataloguing and classifying books and periodicals to identify material and to integrate information into library catalogue 	Public library
Media Resource Librarian	B.Bibl./Post-graduate diploma/B.Tech (LIS)	<ol style="list-style-type: none"> 1. Planning services that relate to electronic resources and the media centre 2. Managing online and CD-Rom databases 3. Managing the media centre and the seminar rooms with respect to staffing, equipment and furniture 4. Managing Principal Library Assistant 5. Information literacy/user education and training 6. Development and maintenance of the collection 7. Promotion of the collection 	Academic library - technikon
Librarian: Central A/V Library	Information not provided	<ol style="list-style-type: none"> 1. Controlling and supervising the Central A/V Library 2. Responsible for distributing and scheduling of work in the Central A/V Library 3. Promoting the stock and services 4. Orientating and guiding users (user education) 5. Collection development/maintenance 6. Training staff 	Provincial library service
Librarian: A/V Section Manager)	Information not provided	<ol style="list-style-type: none"> 1. Management of staff and their functions 2. Administrative managerial tasks 3. Promotion of A/V material and services 4. Information provision (conducting searches) 5. Assisting, guiding and training A/V librarians with regards to their functions 6. Collection development 7. Responsible for expenditure/budgets 8. Keeping abreast of legal requirements 	Provincial library service
Librarian	B.Bibl. or equivalent	<ol style="list-style-type: none"> 1. Cataloguing and classifying material 2. Managing and supervising library staff 3. Preparing library budget 4. Selective dissemination of information 5. Information retrieval 6. Managing ILL 	Museum library

		7. Collection development	
Librarian	B.Bibl.	1. Cataloguing and classifying material 2. Information retrieval 3. User education	Academic library - technikon
Librarian	B. degree in LIS or equivalent	1. Supervising and training officials on office operations 2. Training officials at affiliated libraries 3. Building stock of affiliated libraries 4. Establishing and maintaining libraries 5. Engaging in projects of community development 6. Performing administrative duties at the office	Provincial library service
Librarian: Music	Information not provided	1. Selection and acquisition 2. Cataloguing and classifying 3. Administrative managerial tasks 4. Collection maintenance 5. Reference and research	Provincial library service
Librarian: Acquisitions	Information not provided	1. Supervising and guiding personnel 2. Controlling budget 3. Responsible for the development of the collection 4. Training staff 5. Preparing staff reports	Provincial library service
Subject librarian	B.Bibl./Post-graduate diploma/B.Tech (LIS)	1. Collection development 2. Organising the collection (cataloguing and classification) 3. Information retrieval 4. User education 5. Detailed reference queries and literature searches 6. Library promotion 7. Outreach 8. General activities	Academic library - technikon
Librarian: Central Reference Section	Information not provided	1. Responsible for management of staff and functions of Central Reference Library 2. Attending management meetings 3. Training staff 4. Administering allocated budget 5. Administrative managerial tasks 6. Keeping up-to-date with developments in the information field	Provincial library service
Central Reference Librarian	Information not provided	1. Dealing with subject requests 2. Collection development 3. Attending courses 4. Compiling subject bibliographies 5. Retrieving government documentation information	Provincial library service
Librarian: Reference Services	B. degree in LIS or equivalent	1. Management (leading, planning and controlling) of the reference section 2. Maintaining library reference collection of books, journals, newspapers, clippings, documents	Public library

		3. Assisting groups and individuals in locating and obtaining material	
Information Specialist	Information not provided	<ol style="list-style-type: none"> 1. Management of the library and its related functions 2. Research/retrieve information 3. Cataloguing and classifying material - capture onto the database 4. Selective dissemination of information (Promotion) 5. Collection development and maintenance 6. General library administrative functions 	Special library/ information service
Archivist	Information not provided	<ol style="list-style-type: none"> 1. Arrangement and description of archives 2. Data-coding of archives - capture of archives onto computer 3. Care of the non-public records collection - sort all acquisitions and records in register 4. Care of photograph collection - register newly acquired photographs 5. Care of the library collection - catalogue and classify all new acquisitions 6. Transfer of archives 7. Disposal of records 8. Reading room service - render assistance to users 9. Outreach 10. Self-development 	Archive
Principal Archivist	B. degree or B. degree in Info Manag. or B. Admin degree or ND: Archival Studies	<ol style="list-style-type: none"> 1. Controlling and supervising of records management section 2. Controlling human resources in the records management section 3. Controlling appraisal of paper based and electronic records 4. Controlling destruction of records 5. Controlling compilation and approval of record keeping systems for paper based and electronic records 6. Controlling inspections conducted at client offices 7. Controlling training 8. Controlling guides, directories, manuals 	Archive
Senior Librarian	Information not provided	<ol style="list-style-type: none"> 1. Policy implementation 2. Control of adult services 3. Collection development 4. Outreach and development programmes 5. Database management 6. Resource administration, control and allocation 	Public library
Senior Librarian: Africana	Information not provided	<ol style="list-style-type: none"> 1. Processing of Africana material - classification, analytical indexing, cataloguing 2. Advanced reference work - in-depth reference queries 3. Acquisition of missing material - periodicals 4. Binding/repair of book material 5. Library promotion - guided tours and providing 	Public library

		information on the Africana library	
Deputy Branch Librarian	Information not provided	<ol style="list-style-type: none"> 1. Supervising the general circulation process (including ILL) 2. Performing administrative tasks 3. Deputising for the Head 4. Processing all donations 5. Supervising receipt of new journals 6. Collection maintenance 7. Bespeak administration 	Academic library - university
Branch Librarian	Information not provided	<ol style="list-style-type: none"> 1. Managing the smooth running of the library 2. General managerial administrative work 3. Staff management 4. Supervising the corporate user scheme 5. Collection development and maintenance 6. Monitoring the journal hard copy usage and possible electronic replacement 7. Conducting formal lectures and library instruction 8. Specialist information provision 9. Advising students on search strategies and compilation of literature reviews 	Academic library - university
Principal Librarian	Information not provided	<ol style="list-style-type: none"> 1. Administrative duties 2. Information retrieval 3. ILL duties 4. Collection development 5. Promotion of library 6. Liaison with the Department of Education and Library and Information Directorate 	Special library/information service
Principal Librarian: Information Service	B. degree in LIS or equivalent	<ol style="list-style-type: none"> 1. Providing reference/information, bibliographic and referral service to meet the information requirements of customers 2. Collecting, organising and maintaining a needs-based collection of information resources to use in answering customers' queries 3. Participating in planning of activities of the division and in activities of technical management committees, other committees, forums, etc. in order to contribute towards participation and transparent management 4. Participating in training and development opportunities to enhance own performance and self-development 	Provincial library service
Principal Librarian: Documentation	Tertiary qualification in LIS	<ol style="list-style-type: none"> 1. Providing and maintaining a catalogue for the documentation and retrieval of library material 2. Assisting with supervisory functions in the subdivision to ensure smooth administration and participation in management 3. Participating in training and development programmes to ensure continued performance improvement and professional development 4. Participating in and assisting with activities of other components in the department 	Provincial library service
Principal	Tertiary	<ol style="list-style-type: none"> 1. Evaluating and recommending new material to 	Provincial

Librarian: Collection Management	qualification in LIS	<ul style="list-style-type: none"> be added to the library collection 2. Evaluating the existing collection to utilise the stock better 3. Participating in training and development programmes to ensure continued performance improvement and professional development 4. Participating in and assisting with activities of other components in the department 	library service
Manager: Technical Services	Degree in LIS or equivalent	<ul style="list-style-type: none"> 1. Managing the technical support services 2. Developing and maintaining a collection of library materials for libraries affiliated to the provincial services 3. Rendering bibliographic and information services to affiliated libraries and their users 4. Rendering specialised library and information services to departments of the Free State provincial government 5. Researching on matters relevant to the functions of the Directorate 6. Planning and co-ordinating the training activities of the Directorate 7. Planning and implementing development and promotional projects for the Directorate 8. Managing the Directorate's IT infrastructure 	Provincial library service
Manager: Specialised Information Service	B. degree in LIS or equivalent	<ul style="list-style-type: none"> 1. Managing the rendering of a specialised information service 2. Planning, organising, co-ordinating and monitoring the functions and activities of the division 3. Managing the human resources of the division to enhance staff performance and service delivery 4. Managing the division's budget 5. Participating in management activities in order to contribute towards participation and transparent management 6. Participating in training and development opportunities to enhance own performance and self-development 	Provincial library service
Assistant Director	B. degree in LIS or equivalent	<ul style="list-style-type: none"> 1. Planning, organising, co-ordinating and monitoring the activities of the division 2. Managing the human resources of the division to enhance staff performance and service delivery 3. Managing the financial resources of the division 4. Participating in management activities in order to contribute towards participation and transparent management 5. Participating in corporate programmes of the Directorate 	Provincial library service
Deputy Director	B. degree in LIS or equivalent	<ul style="list-style-type: none"> 1. Conducting strategic planning for the sub-directorate & affiliated libraries 1. Managing financial matters of the sub-directorate 	Provincial library service

		<ul style="list-style-type: none"> 2. Determining service standard in regional and affiliated libraries 3. Liaising with municipal officials on library matters 4. Managing human resources of the sub-directorate 5. Co-ordinating administrative procedures of all regions 	
Assistant Town Librarian	B. Degree in LIS or equivalent	Assisting with planning, managing, leading, co-ordinating and supervising library and information services of the municipality	Public library
Town librarian	B. degree in LIS or equivalent	Controlling, managing, administering, planning, leading, co-ordinating and supervising the library and information services of the municipality	Public library