Curriculum response to a changing national and international information environment: Theoretical and methodological paradigms on review and revision

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A follow-up study and newspaper scanning techniques are used to collect data to review and revise the Library and Information Science (LIS) curriculum at the University of Zululand, South Africa. Firstly, as an exercise in product analysis, a case study of the graduates of the University of Zululand between 1996 and 1997 was conducted. Graduates were traced to their current places of employment and interviewed together with their employers in order to determine whether the knowledge, skills and attitudes gained during training were adequate for their current job requirements. Secondly, a market-type analysis was conducted by scanning job advertisements in the LIS field appearing in a popular national weekly newspaper over a period of three years. Details regarding date and location of advertisement, type of employer, job details and job specifications and requirements in terms of qualifications, experience, knowledge, skills and attitudes were captured from this source and analysed. The public sector, and in particular public and academic libraries, dominate this segment of the employment market in South Africa. A sound education in management, information and communication technologies, searching and retrieval, and information analysis and synthesis, as well as the ability to perform practical work, are regarded as essential. The paper addresses theoretical and methodological issues in LIS education and curriculum development.

1. Introduction

The purpose of this survey was to enable the Department of Library and Information Science to review and revise its curriculum by analysing the strengths and weaknesses of the degree programme largely through product and market survey and analysis. In order to achieve the aforementioned goal, the following objectives have been pursued. Firstly, to solicit views from graduates (bachelors, postgraduate diploma and masters in library and information science (LIS): 1996–1997) on the

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strengths and weaknesses of the degree programmes and the suitability of knowledge, skills and attitudes obtained from their study programmes as applicable to their job requirements. Secondly, to solicit views from the employers of LIS graduates on whether the employees met their job requirements and whether there were gaps in the employees’ knowledge, skills and attitudes that might be attended to by the Department. The final objective was to determine how the outcome of the study could be used to revise and review the LIS curriculum at the University of Zululand.

A large number of studies and publications on manpower issues and curriculum development in LIS are listed in various bibliographic databases. Evidently, follow-up studies enjoy popularity for training needs assessment as witnessed by an analysis of the BUBL Journals database (Location: http://bubl.ac.uk/journals/lis/) with 156 LIS journals and 6769 records. In early 2000 it gave 11 matches to ‘follow-up study’, of which nine [1–9] used follow-up studies for training needs assessment with a bearing on curriculum. The use of product/graduate and market/employer surveys for curriculum development is gaining momentum in Africa. Follow-up studies of graduates for curriculum review, during the last ten years, have been conducted by Anadiran in Nigeria [10], Alemna [11,12] and Kisiedu in Ghana [13], Rosenberg in Kenya [14], Aswegen in South Africa [15], Rugambwa in Ethiopia [1] and Aina and Moahi in Botswana [16]. There is also an on-going research project on the LIS market in South Africa by Synman [17]. Although these studies were conducted over a long time span, they all revealed that libraries are the biggest employers of LIS graduates and, largely, that the outcome of such surveys proved to be invaluable for curriculum review.

Information-related job opportunities for information workers/professionals have shown gradual growth in South Africa. For instance Synman [17], reporting on the employment market for information professionals in South Africa based on the scanning of job advertisements from three national newspapers with the highest circulation in the country (Sunday Times, City Press and Rapport) between January and August 2000, identified 250 information-related job advertisements. Of these, 114 positions were in the emerging markets under such categories as information systems specialists, information and knowledge managers, information analysts, research workers, consultants, records managers, and trainers. Synman’s study concurs with the current study, however, in demonstrating that libraries in the public sector still offer most information-related job opportunities, but that non-traditional LIS jobs in the emerging market are also available. The nature and number of information-related jobs in the public and corporate sectors, apart from those in public and academic libraries, are not easy to estimate, and they do not show signs of being filled with an increasing number of LIS graduates because they are not widely publicised. Whilst public libraries in the townships that were neglected by the apartheid regime exhibit short-term avenues for LIS graduate employment, school library development has declined in South Africa, despite the introduction of an Outcome-Based Education (OBE) policy that advocates learner- and resource-based education for primary and secondary schools.
2. The University of Zululand

The University of Zululand was founded in 1960 and is situated at KwaDlangezwa, approximately 150 km north of Durban. It is one of 20 public universities in South Africa. The student population, which is almost entirely African South Africans, stood at 6200 in 2001. The official university language of communication is English, although the student and staff population speaks several South African languages, dominated by IsiZulu. The University currently employs 753 members of staff on its two campuses (the Durban-Umlazi extramural Campus was established in 1979) including 259 teaching staff/faculty. The student/staff ratio is approximately 8:1 overall and 24:1 for teaching staff/faculty. The university’s academic programmes are conducted in six faculties and 50 teaching departments. The mission of the university is to provide tertiary education and to pursue knowledge, which serves the needs of the country in general and those of the surrounding communities in particular.

The Department of Library and Information Science is one of 18 departments within the Faculty of Arts, the largest Faculty at the University of Zululand. It is also one of the oldest teaching departments at the University. In 1968 the lower Diploma in Librarianship (non-graduate, three-year programme) was introduced in the Faculty of Arts without any reference to a particular department and the first two students were enrolled in the pioneer programme. The Department of Library Science was founded a year later and the degree of Bachelor of Library Science (four-year degree programme) was introduced. The degree of Honours-Bachelor of Library Science (graduate degree offered in the fifth year of university education) was introduced in 1973, the Higher (Post-graduate) Diploma in Library Science in 1978, and the Master’s degree in Library and Information Science in 1984. The Diploma in Specialised Education: School Library Science (a Postgraduate Diploma for those with teaching degrees/degrees) was introduced in 1990. Information Science was added to the curriculum in 1980, becoming a separate major in 1982. In 1988 the name of the Department was officially changed to the Department of Library and Information Science. In June 1997, the degree of Doctor of Philosophy (Library and Information Science) was introduced.

The student enrolment figures for the courses/subjects offered by the Department of Library and Information Science are high and stable. For instance, the average numbers were 815 between 1996 and 2000. Students from other academic disciplines/Departments and Faculties can take LIS courses/subjects as minors or enrol for either library science or information science as their majors. Similarly, the third and fourth year Faculty of Education students require three of the school library science courses for their degree qualification requirements. This flexibility has enabled the Department to attract large numbers of students, essential for its viability. Compared with the large total of students registered for LIS courses for non-LIS degree purposes, the numbers of students whose career paths lead to a LIS degree between 1996 to 2000 are smaller: 360 bachelor’s students (with 15 graduating each year);
20 bachelor-honours students (averaging four graduates per year); three master’s students; 13 diplomas in school library science (10 graduating) and 60 postgraduate diploma students (with about half graduating). Approximate figures are used to take account of the students whose names do not appear in the official graduation list used for this study due to non-payment of fees before graduation day. The improved student enrolment guarantees the viability and stability of the Department. However, the existence of the other 18 LIS Departments poses competition-based challenges to this assumed stability [18, p. 49–52]. Furthermore, the decline of 25 percent in the total intake of students in 2000 at the University is alarming.

Until the end of 2000, candidates for the Bachelor of Library and Information Science degree majored in Library Science and Information Science (of which Library Science is a four-year major) as well as in one other degree subject. During the entire period of study at the Department, students were expected to enrol for 14 courses in the two major areas as well as for 14 courses selected mainly from other degree programmes in the Faculty of Arts, but also offered by other faculties. Library and Information Science was also recognised for other bachelor degree purposes. As from 2001, the University changed from a semester system to a modular/term-based system with emphasis on programme-based, career-driven education. The Department, together with related disciplines, will offer 64 (512 credits/5120 notional hours) modules in its Bachelor of Library and Information Science (BLIS) programme, and 48 (384 credits/3840 notional hrs) in its BA (Information Science) programme. This will mean that only those enrolled in the programmes can take them as majors (refer to location: http://www.uzulu.ac.za for LIS programmes and modules).

3. Methodology

The survey population in this study consisted of three categories. The first category comprised students graduating between 1996 and 1999: 42 BLIS students, 16 students in the Higher Diploma/Postgraduate Diploma Library and Information Science (PGDLIS) programme, and three Master of Library and Information Science students. Responses were received from 25 BLIS, 4 PDLIS, and 1 master’s graduates, giving a total of 30 responses (50% of the total target population). The second category consisted of 20 employers or ‘bosses’ of the graduates who were interviewed. Some employers had more than one of the graduates in their employment. The final category consisted of all advertisements (313) appearing in the Sunday Times weekly (from 1996–1997) newspaper that listed LIS as a job requirement. The Sunday Times is the highest circulation newspaper in South Africa, with around 1.6 million readers weekly. The advertisements were scanned and analysed for details regarding date and location of advertisements, type of employer, job details, specifications, and requirements in terms of qualifications, experience, knowledge, skills and attitudes. The methodologies for scanning advertisements and conducting follow-up studies that had been successfully applied to develop the LIS curriculum at Moi University,
Kenya, by Diana Rosenberg [14,19] and others, including this author, were largely replicated.

A follow-up study was employed for both product and demand analysis. The following categories of graduates were traced to their current places of employment and interviewed together with their employers or superiors/ ‘bosses’ to determine whether the knowledge, skills and attitudes gained during training were adequate for the current job requirements: those holding a four-year BLIS or its equivalent; a PGDLIS (taken by holders of bachelor degrees in other disciplines to gain a professional LIS qualification after one year/fourth level study in South Africa); and those who obtained MLIS qualifications from 1996 to 1999. A framework interview with the graduates required them to provide background information about themselves as well as place of work, employment history since graduation, current employment and future development.

Similarly, the interview with employer/superior set out to find background information on the nature and type of organisation, job details of the employee, evaluation of the employee and, finally, future plans with regard to the employee as well as information manpower needs. Based on the successes of the two methods elsewhere, it was assumed that the information obtained would be adequate to supplement other existing information that could help the curriculum developer to revise the curriculum and syllabus and to improve the quality of the product or trainee and, ultimately, provide a better product to the information industry.

Data on advertisement scanning was recorded onto a prescribed score sheet and analysed, largely, by use of descriptive statistics. Interviews with both employee and employer representatives were recorded (taped in some cases) and later transcribed. Data gained from the three methods were, through triangulation, discussed in order to compare, digest and ‘vibrate’ the results. The results were then used to verify and review the existing curriculum. The observation of the job environments during the interview visits proved to be extremely useful for verifying the data and for gaining sensitivity with regard to the practical reality in the workplace. Interviews with the employers were not as gainful as initially expected. Perhaps the focus group method would have yielded better results. It has also been learnt that a reliable record of the actual number of graduates cannot be obtained from the student graduation list if the names of those owing the University fees are left out. Similarly, changes of graduate addresses and their disappearance for unknown reasons made it difficult to trace all of them, as would have been preferable.

4. Results

Three data sets are reported in this section: results from an interview with University of Zululand LIS graduates; outcomes of interviews with employers/superiors of LIS graduates; and the results from a newspaper scan on LIS jobs.
Table 1
Background information on LIS graduates (N = 30)

<table>
<thead>
<tr>
<th>Type of Employer</th>
<th>17 (56.6%) – Public sector/Transitional Local Councils – public libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6 (20%) – Academic institutions/university – academic libraries</td>
</tr>
<tr>
<td></td>
<td>4 (13.3%) – Private and public sector – special libraries</td>
</tr>
<tr>
<td></td>
<td>2 (6.6%) – Unemployed</td>
</tr>
<tr>
<td>Job designation</td>
<td>9 (26.6%) – librarian</td>
</tr>
<tr>
<td></td>
<td>8 (26.6%) – library assistant</td>
</tr>
<tr>
<td></td>
<td>5 (16.6%) – assistant librarian</td>
</tr>
<tr>
<td></td>
<td>2 (6.6%) – unemployed</td>
</tr>
<tr>
<td></td>
<td>3 (10%) – voluntary work (in libraries)</td>
</tr>
<tr>
<td></td>
<td>1 (3.3%) – senior librarian</td>
</tr>
<tr>
<td></td>
<td>1 (3.3%) – communication officer (non-library job)</td>
</tr>
<tr>
<td></td>
<td>1 (3.3%) – sales consultant (non-library job)</td>
</tr>
<tr>
<td>Salary in South African Rand (R)</td>
<td>Average – R.3500 – per month</td>
</tr>
<tr>
<td>(one Rand = 7.35 US$ at November 10 2000)</td>
<td>Range R.1600 (library assistant) to R.6500 (librarian)</td>
</tr>
<tr>
<td>Notes: Salaries are given per month.</td>
<td>Library assistant – R.3000 (average)</td>
</tr>
<tr>
<td></td>
<td>Assistant librarian – R.3500 (average)</td>
</tr>
<tr>
<td></td>
<td>Librarian from R.3000</td>
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</tbody>
</table>

Date of Graduation
Recorded to determine the number of graduates in a particular year. (Note that the list of graduates is based on those who do not owe the university any fees and whose names are listed for graduation. This list may not account for a graduate who settles his/her debt with the university after the graduation ceremony)

Title of Degree
25 Bachelor in Library and Information Science
4 Higher Diploma in Library and Information Science or PGDLIS
1 Master’s in Library and Information Science

4.1. Interviews with the University of Zululand LIS Graduates

Approximately 50% of the targeted population (60) responded. The results are provided in four sub-sections: background information, employment history since graduation, current employment, and future development.

4.1.1. Background Information on LIS Graduates
This information is summarised in Table 1.

Most graduates secured jobs in the public sector or in transitional local councils in public libraries as librarians. Employment in the private sector is insignificant.

4.2. Employment History since Graduation

It was noted that each applicant submitted an average of 20 applications. Applications were made to the public sector, particularly for local government jobs. An
insignificant number of applications were lodged with the Private Sector. Details in order of quantity of applications lodged were as follows: Public libraries, academic libraries, special libraries, museum, others, schools, mass media, NGOs, and college/university library teaching. Such applications were made for the following jobs:

- Librarian
- Media teacher
- Information related jobs
- Information officer
- Community librarian
- Information specialist
- Researcher
- Information consultant
- Public relations management

- Communication officer
- Communication related jobs
- Clerk
- Secretary
- Lecturer
- Sales consultant
- Human resource manager
- Labour relations officer

Data on the availability of the vacancies were obtained through advertisements (25), contacts (16), personal initiative (3), and through employment agencies (1).

The interviews were undertaken in the following types of organisations, listed in descending order of frequency:

- Public sector/TLC/public libraries
- Public sector/museum
- Public sector/schools
- Public sector/archives
- Public sector/academic institutions/academic library
- Public sector/academic institutions/education/training
- Private sector/special libraries/other jobs

Such interviews were made for the following jobs in descending order:

- Librarian (assistant, branch, temporary, voluntary, deputy director, senior, university, deputy, children’s, school, subject, readers advisory, cataloguer)
- Researcher
- Museum assistant

- Archive assistant
- Communication officer
- Sales consultant
- Lecturer
- Archivist

The outcome of the interviews revealed that of the 600 interviews lodged by applicants, 310 (51.6%) were negative while 208 (34.6%) were positive. In a number of cases employers never responded to the applicant 50 (8.3%) or kept the date for the interview in suspense 32 (5.3%). Reasons for negative responses were varied. For instance, some turned down offers due to the candidates’ individual circumstances, including: marriage status, family commitments, job requirements (lower qualifications required), low salary/wage. In some instances, the job was
 secured but parents insisted that their children, particularly the daughters, must work near home due to a lack of life experience.

When asked to provide information on employment history prior to current job in terms of employer, job description, and dates of employment, salary, job activities and reasons for leaving, information was obtained from the following organisations:

Public sector/TLC/Public library.
Public sector/academic institution/academic library,
Public and private sector/special library,
Public/school library.

The job designations were:

– Teacher
– Temporary assistant librarian
– School librarian
– Library assistant
– Librarian
– Voluntary service
– Project assistant
– Client consultant
– Assistant librarian
– Communication officer
– Junior library assistant
– Senior library assistant
– Student librarian
– Student assistant
– Librarian

It was furthermore found that most of the jobs were offered on a short contract basis or were temporary jobs. The salary per month was, on average, R2700, with the lowest at R1800 and the highest at R5500. Regarding job activities, the following were mentioned:

– Searching and retrieval
– User guidance/client consultant
– Cataloguing
– Shelving and shelf reading
– Data capturing
– Management
– Circulation control
– Service co-ordinator
– Classification/ analysis & synthesis
– Lending

– Library operations/management
– Vacation programmes/outreach
– Acquisitions/collection devt.
– User services/client advisor
– Displays/current awareness service
– Book selection
– Publicity and promotion
– User education/information literacy
– Current awareness service

When asked to state why they had left previous jobs, the following reasons were given: end of contract, it was a temporary job, a better job was found, left to take up a permanent job, family reasons, secured another job, got promotion, left for further studies, and the job was a part-time.

4.3. Current employment: Detailed account of activities undertaken

Respondents were asked to mention their day-to-day activities in their current job in order to find out if there was any relationship between it and the knowledge
and skills gained during their university education. The following activities were mentioned:

- Cataloguing
- Classification
- Document processing
- Reference service
- Inter-lending/networking
- Book issues/document delivery
- Circulation control
- Document restoration
- Management assistant
- User education/information literacy
- Working with children/children
- literature and librarianship
- Story-telling/ children’s’ literature
- Shelving and shelf reading
- Library statistics/management
- Staff management
- Displays
- Book selection
- Client support
- Public relations
- Inter-lending
- Management of special requests and reservations
- Data inputting
- Staff supervision
- Supplies management/collection development
- Preparation of articles for newsletter
- Project appraisal
- User advisory
- Outreach activities with schools
- Administration
- Searching
- Newspaper indexing
- Media Liaison
- Communication strategies planning
- Attending media inquiries
- Information liaison with researchers
- Updating statutes with supplement/indexing
- Press cutting/indexing
- Review and organise documents
- Client consultancy
- Filling
- Information retrieval
- Press statements
- Records management
- Photocopying
- Vocation programme
- Reader services
- User education
- Helping children with school projects
- Banking
- Public relations
- Weeding
- Network management

A further question about on-going and completed projects was asked to find out the level of initiative and enthusiasm with regard to the information work performed. The majority of respondents had not initiated any projects, but a few had initiated projects in one or two of the following areas:

- Compiled history of Clemont
- Organise displays e.g. aids/HIV, women,
- Visit to schools
- Creation of a database on activities and events in the area
- Teachers’ collection development
- Survey of library security
- Manual for subject librarians
- AID/HIV awareness project
- OPAC manual
– Story-telling to children
– Vocational programmes (games, decoration, reading etc.)
– Adult education
– Library user surveys
– User education

Most of these projects were ongoing, but a few projects had been completed: development of a library security manual, a report on the state of the library computer equipment, and the development of a teachers’ collection.

When asked to mention the changes in the job activities in the information environment that they had been working on (in order to find out if there were new trends that required attention in the curriculum or continuing education), the majority stated that they had not observed any changes. The few who had noticed changes mentioned the following:

– Computerisation has created need for further training
– Acquisition and use of technology/computers acquired
– Membership increased
– Library consciousness in the community
– Community involvement in library development
– Lending decreasing because of poor reading conditions at home
– More young adults and teenagers visit the library
– Affirmative action
– Interpersonal relationships have improved
– More administrative and managerial jobs
– Mobile libraries
– Improved work relations with suppliers
– Production and release of newsletter for the first time in the department
– Development of a book club in the library
– Creation of a book suggestion file for patrons to suggest books to be bought

When asked to mention their levels of responsibility in the information service in order to determine whether the nature of the job that they occupied permitted them to use the knowledge gained during their LIS education, the following were mentioned:
Similarly, they identified the following activities (linked to knowledge gained from the degree programme):

- Cataloguing
- Classification
- Indexing
- Information retrieval
- Online search
- Management
- Shelving, display
- Information collection development
- Computer skills
- Communication skills
- Library orientation
- User guidance
- Book selection,

- Subject librarian
- Fiction librarian
- Collection development/acquisitions
- Co-ordination of departmental functions (media briefing, media linkage, photography)
- Serial library assistant
- Audio visual librarian
- Interlending/networks librarian
- Searching and retrieval

When asked about the knowledge and skills that they felt they were lacking, they listed:

- Practical work experience
- Computer literacy
- Management
- Internet exploitation
- Collection development
- Use of electronic mail
- Computer skills
- Database management
- Interview skills
- Skills for using statistical packages eg SAS
- In-service training
Online cataloguing
– Student centred learning encouragement and giving student more responsibility
– General knowledge
– Library computer skills
– Classification
– Use of computers for searching and retrieval of information

They recommended the following improvements and changes:

– Computer literacy be intensified
– Confidence building be encouraged
– Online searching and retrieval be increased
– Duration for practical to be increased
– More management courses be provided
– More technology courses be provided
– Knowledge of LIS software programmes be intensified
– More classification courses
– Reduce the time allocated to historical librarianship
– Online cataloguing be introduced
– Voluntary service during holidays encouraged
– Introduce virtual librarianship
– Offer more courses on spreadsheets
– Provide guidelines to students on other career opportunities besides libraries
– Select more carefully candidates for the profession
– Emphasise ethics, interpersonal skills and the service culture
– Intensify MIS coverage
– Intensify ICT coverage
– Intensify Internet coverage
– Reduce time for irrelevant courses
– Introduce telematics
– Provide longer attachments

4.4. The future

Two items are focused upon in this section. Firstly, how the graduates projected their career growth in the profession, and secondly, how they imagined the Department of Library and Information Science could support their career needs.

Future career growth

The majority of the respondents intended to rise professionally to top positions (e.g. university librarian, chief librarian, city librarian, director of information services, and LIS professor). The following prospects were also mentioned: pursue a career in business with an MBA marketing degree, start own company, study psychology and IT, secure employment in academic libraries, become a modern librarian who
can provide modern information services and start an information centre. In order to achieve these targets they recognised the need for further professional development through formal and informal education and training and the need to gain experience and exposure in order to provide effective service to the community. Similarly, they recognised the need for IT skills. Those who had not yet secured jobs kept their professional ambitions open.

The role of LIS department

The role of the Department as explained by the respondents can be summarised as:

– offer opportunity for further studies (formal),
– keep in touch with alumni,
– provide guidance and advise
– offer short courses/continuing education particularly on technology oriented skills
– solicit overseas scholarships and offer sponsorship and bursaries,
– offer employment,
– use graduate experience and expertise for teaching,
– supply job contacts for graduates,
– offer honours degrees by correspondence courses,
– assist in identification of suitable research topics for graduate degrees.

4.5. Results from interview with employers of LIS graduates

It was desirable that all the employers of LIS graduates be interviewed. Some employers had recruited more than one LIS graduate to their organisation (for instance, most Transitional Local Councils such as Durban Metro and Richards Bay, as well as the University of Zululand). In reality, interviews were obtained with eight employers, but these represent a large pool of diverse opinions.

The interview with the employers was undertaken to find out if the employees/LIS graduates were suitable for the job activities that they had been hired to do in terms of knowledge, skills and attitudes. A further reason was to identify gaps in training that may be addressed by the Department. In business terms, this was a product and demand survey. The following information was solicited: background information about the employer’s organisation, job details of the employee, employer evaluation on job performance, and the future plans of the organisation in relation to the employee and information related jobs. The results are summarised in Tables 2 and 3.

When asked to mention future plans for the employee and for information-related work, all respondents were positive about the retention of the employee. However, none were able to foretell their employees’ career growth, while the majority was unable to identify other areas of information-related work in which they had found it difficult to recruit. One mentioned computer skills, reference librarianship and
Table 2

Job details of employees

| Job requirements and description                                                                 | Circulation – user services, fiction requests, circulation control, user service, book selection, cataloguing, reference queries, display, accession, weeding, user services, administration of branch library, statistics, supervisory, circulation and reference work, managerial, community service, management of the library, reader service, co-ordination of special information, assistance to local schools, supervision of personnel statistics, monthly report, circulation control, display, vocational activities, cataloguing, classification, library operations, lending services, photocopying, book selection, circulation control, |
| Number of applicants for the job                                                                  | Several |
| Types and levels of education, training, experience                                               | There was a mixture of those with library work experience; some obtained professional LIS qualifications that included BLIS degree, BLIS degree and experience. Applicants with school leaving certificates also applied for information-related positions. |
| Number interviewed                                                                                | Ranging from 4–7 |
| Types of education, training, experience possessed                                                | – University degree including professional qualifications |
| This variety includes those with experience in information-related work such as in libraries.     | – Teachers qualifications |
| Why University of Zululand graduate was selected                                                   | – School leaving certificate |
|                                                                                                  | – They were known to the library after previous attachment and voluntary service |
|                                                                                                  | – Demonstrated good performance during interview |
|                                                                                                  | – Achieved the required qualification and good interview performance, |
|                                                                                                  | – Demonstrated good interpersonal relations |
|                                                                                                  | – Attained the best result out of the lot interviewed |
|                                                                                                  | – Had a Christian commitment |

children’s librarian. Similarly, the majority was unable to indicate whether the employment of LIS graduates created any new manpower needs in the organisation. Only one respondent mentioned the appointment of a library assistant and security staff.

4.6. Advertisement data

Scanning a popular weekly South African newspaper where most advertisements for positions are to be found, also provided data. The aim was to identify the skills, knowledge and attitudes that are required by employers for manpower needs assessment and training/curriculum focus. Data only for 1996 and 1997 were captured; the decision to capture data for 1998 as well was rescinded because results for that period showed no significant differences.

Most vacant positions were normally advertised for two to three weeks. Regional/local government (152) followed by parastatal/academic institutions (45) ad-
Table 3
Employer evaluation of the employee/LIS graduate

| What sort of activities has the employee been carrying out? | Answers were generally vague. For instance, those prescribed in the job description, library oriented, most library duties, routine, routine plus limited administration, see job description, All respondents were positive. There was an indication that much more delivery was expected when experience is accumulated.
| Has the employee met your expectations in knowledge, skills and attitude required for the activities? | In private, views were expressed as follows:
- Poor Public Relations
- Lacking filing skills
- Lacking computer and database management skills
- Insufficient practical experience
- Indecisiveness
- Lacking experience & exposure
- Not normally sure of what they do.
- Additional skills required,
- None glaring for the job activity,
- Mainly private characteristics dwelt on:
- Good interpersonal relations (four pointed out this quality)
- Computer literacy
- Good communication skills
- Commitment to work
- Ready to discuss issues
- Management
| What weaknesses have you noted in the knowledge, skills, and attitude of the employee? | Financial management, practical experience, decision making, report writing, systematising work, book reviews. There were three cases where none was mentioned.
| What strengths have you noted in the knowledge, skills, and attitude of the employee? | The following areas were mentioned: Public relations, computer skills, IT training, graduate studies, professional conferences, middle management courses, in-house training, displays and book selection. Also noted that further training is essential for all employees because there is always a knowledge gap.
| Are there any areas in which you feel he/she is overqualified for the job? | Majority did not mention any over-qualifications. However, two noted over-qualification for the job requirements at the level of appointment.
| Is there any knowledge or skill in which the employee was ill prepared and which you have had to teach the employee? | The following areas were mentioned: Public relations, computer skills, IT training, graduate studies, professional conferences, middle management courses, in-house training, displays and book selection. Also noted that further training is essential for all employees because there is always a knowledge gap.
| Have you sent the employee for further training in any area or do you think you will need to do that in any area? | Trailing behind were private profit making companies (3), NGOs (1) and central government (1). No advertised positions originated from international and foreign institutions or other sources.

Analysis according to type of activity revealed most adverts originated from the service sector (158) followed by educational institutions (72). Limited advertisements originated from commercial (3), industrial (2), research (1) and religious institutions (1). None was noted from financial institutions. A diversity of job titles is used for the position of information management and service worker. Common titles, arranged in the order of their frequent usage are:

- Librarian (116),
- Senior Library Assistant (8),
Other rarely used job titles included: Manager: Library Services, Library Systems Manager, Education Management Information Systems (EMIS) Manager, Documentalist, Librarian – Archivist, City Librarian, Manager Video Services, Senior lecturer – LIS, Junior lecturer – LIS, Deputy Director – Library Services, Research Librarian, Chief Librarian, Senior Research/Information Consultant, Associate Librarian, University Librarian, Information Analyst, Database Officer, Education Librarian-IT Services. It is observed that IT, Information Systems, MIS, information analyst, publishing, data processing and network-oriented jobs largely demanded graduates with specialisation in computers, telecommunications and commerce. However, an information science graduate can offer some of the knowledge and skills required.

Job description is essential for determining training needs. The following common job descriptions were noted.

- Knowledge of library hardware and software requirements and their use for information services
- Manage reference section/services
- Collection development/acquisitions
- Evaluation/preservation/conservation/restoration indexing/coding information service/user services
- Management of information service
- Visual media evaluation/services
- Manage IT and Information resource
- Selection of hardware and software
- Publicity/promotion/marketing/PR
- Technical service development & maintenance
- Departmental libraries establishment
- Customer relations
- Systems management
- Information services co-ordination
- Classification/indexing/cataloguing
- Internet/Intranet for information services
- Searches/SABINET/computerised cataloguing/SAMARC
- USMARC
- Library In-house Software
- Programs (URICA, ERUDITE etc.)
- Interlending/networking services
- Stock taking/checking/statistics
- Displays/exhibitions
- Shelf reading/proof reading
- Provide specialised library services
- Information & bibliographic services
- Training and research to community and educational institutions/management
- Information needs assessment
- Lending services
- Storage maintenance
- Searching and retrieval
- MIS
- Administration/execution of routine tasks
- Archiving/document restoration
– Support teaching, learning and research
– Manage provincial library and information services
– Policy-making/formulation/standards
– Development & adoption of policies
– Departmental libraries in the province
– Community information services
– Liaison with community libraries
– Development of Library and information services
– Open communication channels
– Management functions
– Clerical duties
– Supervise district information services
– Lecturing in English and Afrikaans
– Subject librarian
– Co-ordinate school library services
– Needs assessment
– Liaisoning and co-ordination with provincial library
– Visit schools to identify needs
– Provide guidance to teachers
– Organise the administration of media centre.

The system of remuneration is diversified and differs from organisation to organisation. Salaries and wages have always represented a clear indicator of levels of remuneration that also differ by levels of appointment. Largely, there is some consistency on salary scales paid in the public sector to information specialists. However, despite the rise in the cost of living, there is no, or insignificant, differences between 1996 and 1997 salaries. The following are some examples of annual salaries paid in South African Rand (US$ 1 = R 7.60). An annual inflation increase by at least 10% may be added to the figures provided.

– Library Assistant R24246
– Senior Librarian – R57510-R83775
– Systems Manager – R67386 -96530
– Assistant Director – R63474 -R85182
– Director of Library Services – R85182
– Chief Library Assistant – R37719
– Library Assistant – R27882 -39036
– Librarian – R.39036 -78141
– Principal Librarian – R50844 -71055
– University Librarian- R95789
– Subject Librarian – R84000 (average and typical to academic libraries.)
– Senior Library Assistant – R27882
– Librarian – R40836 -R45852
– Lecturer – R84000 (average)
– Senior Library Assistant – R27882

Note: some salaries have doubled since 1996.

4.7. Job requirements

Most of the advertised jobs required a bachelor’s (3 or 4 yr.) degree qualification. Employers favoured a Postgraduate Diploma in LIS. A few jobs listed postgraduate honours/masters/or PhD as a requirement. More junior positions, such as for library assistant, accepted applications from matriculates/senior school leavers and certificate holders. Computer competence or qualifications in a variety of information/library service software programmes such as UNIX, was highly recommended. In one instance teaching experience was required along with other qualifications.

Experience was emphasised for most jobs, and the following were some of the requirements for experience:

– Expertise in IT
– Knowledge of reference work and CD-ROM databases
– Extensive experience if certificate holder
– 3 yrs specific computer and IT in LAN environment
– Strategic planning and budgeting
– Extensive experience in video library environment
– Multiple customer interfacing
– 10 years in academic library
– 5 yrs. + computerised cataloguing
– 3 yrs. with law & serials collection/services
– Middle level management
– Substantial/extensive/necessary
– 5 yrs comprised library environment
– 1 yr with subject classification and subject heading
– 3 yrs information consultancy
– Teaching experience
– 5 yrs in academic library/AACR2 and DDC
– Online searching
– Extensive in special library
– 5 years in public library
– Information service and education generally
– SABINET

It is largely argued that knowledge is embedded in a person’s life or acquired by experience, exposure, and education as well as through exploitation and use of information. The adverts emphasised the following:

– Computer literacy/skills
– Computer literacy with library systems
– Information service and education generally
– SABINET
– Sound knowledge of DDC 20, AACR2, SAMARC, LC subject headings and subject thesauri, CD-ROM databases
– Interest and knowledge in LIS and Resource based learning
– Knowledge of SABINET, audio visual technologies and their application in teaching
– Information technology and Library application/library management

In the area of skills, the following was emphasised:
– Ability to use information retrieval databases
– Language proficiency
– Communication skills
– Management and administrative skills
– Community consciousness/commitment/work/
– Training/teaching skills
– Cataloguing and classification with AACR2, DDC, LC subject headings
– IT skills
– Keyboard skills
– Interpersonal skills
– Leadership qualities
– Computer skills
– Abstracting skills
– Policy formulation
– Good English
– School libraries
– Public libraries
– Management
– Online cataloguing
– Business analysis
– Urica, URIDITE, sabinet/online system/Inmagic/zulu

Senior positions and specialised services demanded more years of working experience ranging from three to ten years.

An insignificant number of advertisements articulated attitude among the needs. The few who mentioned this included the following wording: initiative, self starter, good teamwork, pleasant, enthusiastic, sociable, open mindedness to change, eagerness to learn and sense of order.

The need for a driving license was mentioned in 11 of the adverts while five required membership of a LIS professional association.

5. Discussions

The public sector, particularly Transitional Local Councils (TLC’s), offer most jobs in public libraries. TLCs were constituted after the democratic elections in South Africa in 1994 to develop and manage as single local councils the former townships and the former white-only cities. Many public libraries are currently being built in the townships where most blacks live and where formerly there were no public libraries. Since the democratic elections in 1994, several new public libraries have emerged from the previously neglected urban settlements. Academic institutions followed
closely, with jobs in academic libraries. There are insignificant job vacancies in the private sector and, if they exist at all, their publicity is obscure. Most job designations refer to librarians at various levels starting from library assistant to director of information services or university librarian. Such designations are consistent with most newspaper advertisements. Graduates seem to gain employment during the first two years after graduation, mainly on contract or in temporary positions. Where possible, graduates seek voluntary jobs to gain the experience that is necessary for securing more permanent jobs. The level of graduate unemployment after the second year of graduation is insignificant. Salaries are fair and consistent with the level of employment and nature of job requirements and type of employer.

Graduates, by all accounts, submit several applications for jobs – showing that they are actively involved in a search for employment. Most of the available jobs are library-service oriented. Knowledge of job vacancies is largely gained by means of advertisements or by information obtained through contacts. There is little evidence of personal initiative and the usage of employment agencies is insignificant. Most applications are aimed at public sector jobs in TLCs, or for positions in public libraries. Academic institutions/libraries receive the second highest number of applications. Vacancies for librarians, the most advertised positions, are also the most popular among job seekers. The aforementioned organisations provided the largest number of interviews for library oriented jobs. The numbers of positive and negative interview results are more or less similar. Reasons for negative responses have no bearing on the knowledge, skills and attitudes that were obtained during training.

Responses to questions on employment prior to current job, including details about the employer, designation, period and duration of employment, and salary are consistent with information of that nature from the aforementioned three sources. Job activities under employment prior to current job and item 4.3 (day-to-day activities under current employment) generally match, as summarised in courses and modules as follows:

- cataloguing,
- classification (information analysis and synthesis),
- searching and retrieval,
- information processing,
- information management,
- library and information services (lending, interlending/networking, reference services, document delivery, photocopying/scanning, user education/guidance/services, etc.),
- management (functions, users, staff, operations, financial etc.),
- collection development,
- information literacy,
- marketing/publicity/public relations,
- records management (preservation and conservation/ restoration, bindery etc.),
- communication skills,
- project management,
- computer skills,
– user studies/information seeking – indexing,
– practical (filling, coding, shelf reading etc.) – abstracting,
– readership/children’s literature.

These activities are consistent with the job descriptions in the advertisement and job activities mentioned by employers. Their reflection in the curriculum is essential. The reasons given for leaving previously held jobs are mostly to search for stable/permanent jobs and better job prospects. Information provided on ongoing and completed projects was scant (less than five respondents reacted) and reveals that initiative and creativity are lacking. This is consistent with employer evaluation of employees.

The majority of the graduate employees have observed no changes in their work environments. However, acquisition and use of technology/computers and information and library consciousness seem to prevail in the few cases noted. Levels of responsibility are mainly applicable to functional library jobs and have less to do with structural positions. This is consistent with the levels of appointment attained by most respondents. A few (six) branch library management positions were noted.

Respondents indicated that sufficient knowledge was obtained from the degree programme. However, during the interviews most of them had problems in describing the particular courses or units in detail. This was partly due to the fact that the structure of the courses are known by programme codes such as information science I, II and so on, or library science I, II, III etc. The title of the courses was secondary to the programme codes. This situation was corrected from 1999 and courses are being recognised by their titles rather than by programme codes. The responses from this section suggest that most of the content/activities mentioned were already incorporated in the previous curriculum. If this is the case then the role of this study has been one of verification. However, recognition of knowledge and skills lacking makes this observation speculative. Computer skills and practical skills were noted to be lacking. Particularly those who graduated before compulsory computer skills were introduced from 1999 mentioned lack of computer skills. A student-centred approach to learning that is able to stimulate critical thinking, creativity, initiative and confidence building is also notably lacking. The concerns raised by respondents have been addressed in the pilot curriculum implemented in 1999 and have already received sufficient attention in the revised curriculum that took effect from 2001. Measures are being taken to move from traditional rote teaching and learning methods to student-centred methods. This will obviously require a significant paradigm shift in teaching and learning methods in the entire University in order to gain acceptance by the students. Improvements and changes suggested focus on the issues already discussed.

The majority of respondents plan to grow/develop upwards in their careers, and that is quite natural. In order to achieve this, further education, experience, exposure and IT skills are recognised to be essential. The role of the Department in supporting
career growth is summarised as promoting graduate studies, developing linkages, providing guidance and advice, organising short courses/continuing educational programmes and securing bursaries and scholarships. It is recognised that the last two activities are still lacking due to staff shortages and inadequate motivation to justify such courses, considering the location of the University programme in a rural setting. However, the issue of bursaries and scholarships has to be pursued vigorously. Qualified students at the University currently benefit from an existing scholarship and bursary scheme but this needs to be supplemented by other sources.

Most interviewees representing employers held senior positions in their jobs. The employer’s views on type of employer, job designation and job requirements were consistent with those mentioned by employee/graduate interviewees. A mixed group of applicants with a variety of education levels and experience, most of them with university degrees, applied for positions advertised. However, those with LIS degrees were preferred. The University of Zululand LIS graduates excelled in the interview due to having a positive attitude and the required qualifications as well as a previous practical attachment with the employer organisation. The employer’s evaluation of the employee/graduate was positive. There were, however, inconsistencies in their evaluation in terms of strengths and weaknesses.

The employee was found to be ill prepared, mainly in practical skills. Other areas noted were of lesser importance. Some employers have promoted staff development by providing opportunities for further formal and informal training. Some fields of further training led to graduate qualifications while others were geared to the development of a service culture or computer skills. It was, however, agreed that further training is essential because there is always a knowledge gap. Employers were generally happy to retain the graduates. This signifies their suitability for the job activities they were hired to perform.

The large number of advertisements (approximately 313 job vacancies) in the Sunday Times for 1996 and 1997 scanned for this study provided sufficient background on the knowledge, skills and attitudes required by employers. It was noted that there was no major difference (approximately 50 jobs) between the number of jobs advertised in 1996 and those in 1997. Similarly, it has been noted that approximately 88 LIS jobs were advertised in the same media between January and August 2000. The existence of various levels of librarianship is revealed in the leading job title given in the advertisements. This is consistent with previous findings. Other job titles such as research/information consultant or database officer that were also found in a few instances, were open to all degree holders including those with LIS degrees. Jobs such as those connected with information systems, IT, MIS, information analysis, publishing, data processing and network-oriented activities required candidates with computer and technology oriented qualifications. Although a library or information science degree qualification was not included in the job requirement, technology-literate and skilled LIS graduate could perform some job activities. Similarly, although most job descriptions under Section 4.3 are essential, the need for technology or computer skills for information management was widely emphasised.
Courses or modules on online searching, library housekeeping software programmes, databases, computerised cataloguing, multimedia, internet/intranet, MIS, and Information and Communication Technologies are essential. The system of remuneration is consistent with that already recorded. Further, it was noted that most of the jobs advertised required a university LIS degree or its equivalent, computer competency, and practical experience. The knowledge and skills required that can be obtained in a well-designed learning programme were varied. Some of the knowledge and skills can be obtained from other academic programmes that students may be encouraged to enrol for during the duration of their study.

6. Conclusions

We have noted that the previous curriculum was not significantly lacking in content for a traditional LIS qualification. The new reviewed curriculum consolidated most of the previous content that had been illogically scattered throughout the programmes and whose content was inadequately articulated. The major changes in the revised curriculum are as follows:

Library science and information science modules are no longer separated as before.
Module titles are clearly indicated for effective focus and marketing.
New modules have been introduced and the number of modules has increased.
Computer-based courses have increased and have been built into the modules.
Extending the duration of fieldwork/attachment and grading the module has emphasised practical skills.
Practical and student-centred learning methods are encouraged and outcome-based methods of assessment are emphasised.
Information and library science courses can only be taken as minors by non-LIS students.

The job activities suggested by both employees and employers and the summary of job descriptions from advertisement scanning have been incorporated in module/course descriptions in the revised curriculum, that can be accessed at http://www.uzulu.ac.za under Arts Faculty.

Follow-up studies seem to be relatively popular when compared with advertisement scanning. Additionally, there is evidence to suggest that follow-up of graduates commonly is done informally by education institutions. Whether formalised or not, follow-up studies or activities are essential for curriculum development and educational improvement. Furthermore, the use of qualitative design provides better insight and is more rewarding in a follow-up study. For instance, the visits to graduate work environments was found rewarding in understanding the context, environment and work atmosphere that is essential for curriculum reviews, resources support and reviews of teaching methods. What both categories of interviewees mentioned was verifiable by triangulation. Although the follow-up study provided
useful information, input from employers was generally scant. This author became convinced that employer opinions and views could also be solicited by focus groups. Information that was gathered through newspaper scanning proved to be exceptionally useful. It reflected a wider national scope and trend in terms of knowledge, skills and attitude requirements that seem to exhibit insignificant change between 1996 and 2000. The triangulation technique, involving the employee, employer and newspaper scanning, and including observations at work and through visits during this study, proved extremely useful for validating the reliability of the results.

Evidently the public sector, and in particular the public and academic libraries, dominate the LIS segment of the employment market in South Africa. This study confirms the findings of other studies conducted by this author that emphasise sound education in management, information and communication technologies, information searching, analysis and synthesis, as well as the ability to perform practical work. Cataloguing and classification, considered irrelevant by educators in some LIS schools because of easy access to centralised cataloguing services, are found to be relevant in as much as they provide knowledge on analysis and synthesis of information as well as knowledge of the nature and structure of a given information collection.

Despite the value of follow-up interviews and advertisement scanning, they alone do not provide a total picture of the demand and supply matrix that can enhance effective and beneficial LIS education. They effectively supplement other methods such as reviewing existing curriculum, reviewing the literature, consulting with colleagues, (including use of Delphi’s technique) observing national and international trends, and organising focus groups [20,21] for academic programme development. As the role and importance of information and knowledge management is widely defined and accepted in both the public and corporate sectors in South Africa, it is feasible that more diversified job opportunities will arise. Such jobs will demand highly competitive information-oriented knowledge, skills and attitudes that LIS schools must be prepared to provide.

References