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Liberal arts in the education and training of LIS paraprofessionals: the cases of South Africa and Québec, Canada

Christine Jacobs

Information and Library Technologies Department, John Abbott College, 21,275 Lakeshore Rd., Ste-Anne-de-Bellevue, Québec H9X 3L9, Canada
cmjacobs@johnabbott.qc.ca

Jaya Raju

Department of Library and Information Studies, Durban University of Technology, P.O. Box 1334, Durban, 4000, Republic of South Africa
jayar@dut.ac.za

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Abstract

Liberal arts education, also referred to as general education, provides students with knowledge, skills and values that enhance their ability to participate in society and to use their minds effectively. In most jurisdictions, however, paraprofessional education has not included any significant component of general education; programs remain, for the most part, focused on technical “know-how,” despite increasing complexities in the roles of library technicians. Such tasks as reference services, cataloguing, and systems maintenance require exactly the types of knowledge and abilities that general education fosters. Via a comparison of programs in South Africa and Québec, this paper invites discussion on the necessity for, and the modalities of, including substantial liberal arts components within LIS paraprofessional curricula.

Introduction

Liberal arts education, also referred to as general education, develops the mind. It provides students with knowledge, skills and values that enhance their ability to participate in society and to use their minds effectively in whatever they choose to do.

For professional librarians, undergraduate degrees have provided this liberal arts orientation. In most jurisdictions, however, paraprofessional education has not included

any significant component of general education. In fact, it can be said generally that the lack of this type of broadly-based education is one of the primary differentiating factors between professionals and paraprofessionals. From this derive concerns at several levels. Over the past thirty odd years, there has been a dramatic transformation in the role of the library technician (as the LIS paraprofessional is commonly known). With the rise of the knowledge society driven by rapidly advancing information and communication technologies (ICTs), new tasks have been created and as the roles of professional librarians have shifted, old tasks have been redistributed in library and information services (LIS). Professional librarians are taking on more complex service- and management-oriented positions, while library technicians are moving into domains that were previously closed to them.

Such tasks require exactly the types of skills and abilities that general education reinforces. However, paraprofessional programs remain, for the most part, focused on technical ‘know-how’, dealing with the pragmatic aspects of information management. At the same time, professional education has developed a strong focus on management, systems analysis, teaching, research and information-provision issues in response to the changing roles of librarians. Perhaps it is time to consider the reality that the professional/paraprofessional divide falls along different lines than it did twenty years ago.

Toward this end this paper attempts to tease out issues surrounding liberal arts or general education and the paraprofessional LIS curriculum in the context of two geographic jurisdictions, Québec, Canada and South Africa. The intention is to draw lessons, if any, for each context and for LIS paraprofessional education in general. The two authors, from each of these geographic contexts, have had the good fortune of meeting and expressing their common concern for the value of liberal arts in paraprofessional LIS education. Hence this joint paper which over and above this personal level has value in terms of comparative methodology which offers opportunities to understand LIS-related practices as they occur in different jurisdictions. Such comparisons are useful “when the variations discovered contribute useful knowledge to the betterment of society” (Brewer 2003: 33). Before presenting the two geographic scenarios, it is important to expound on the concepts of liberal arts education, paraprofessionalism, and more specifically, LIS paraprofessionalism and the role of paraprofessionals in LIS services, including their education and training.

Liberal arts education

Liberal arts or general education, focuses on the individual’s state of being educated. Subjects are studied not for the utility of their content for practical purposes, but rather for their capacities to train the mind and cultivate the intellect (Sanderson 1993: 189). Hence this pedagogy focuses on liberal arts subjects such as grammar, mathematics, logic and rhetoric, etc., as well as on various discipline-based subjects. Liberal arts education provides students with the knowledge, skills and values that will prepare them for active and effective participation in society (Barker (2000: 2) Critical and logical thinking, self-reflection, and articulate expression, promoted through study of the liberal arts, serve as important life skills. In addition, such education fosters attitudes of cultural awareness,

ethical awareness, valuing, creativity, and autonomy. Today liberal arts or general education at the tertiary level is usually provided by means of a general bachelor's degree in any chosen discipline and it aims to give an individual a broad base of knowledge.

Paraprofessionals

A paraprofessional is generally understood to mean someone who works alongside the professional, usually in a technical capacity. A LIS paraprofessional, commonly referred to as a library technician or sometimes as a library assistant, traditionally has been regarded as performing a supporting role alongside the professional librarian, engaging in the application of known techniques and principles in the organization and supervision of systems designed by professionals. The LIS professional (librarian), on the other hand, works at the professional level engaging in high level planning, development, design and evaluation (Tin and Al-Hawamdeh 2002: 334; Kerkham 1988: 7-8).

Paraprofessionals in LIS services

LIS paraprofessionals are distinguished from other categories of support staff in LIS services in that most of their tasks are unique to library and information science for which they received specific training and hold a LIS qualification. The development of paraprofessionalism in LIS has been part of the evolution of LIS professionalism since the earliest days of librarianship. However, recent forces 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 information-handling technologies to the LIS environment has made it possible for paraprofessionals to carry out many tasks that were traditionally reserved for professionals, that is, librarians (Neal 2006; Biddiscombe 2002: 230; Tin and Al-Hawamdeh 2002: 334). For example, cataloguing has been revolutionized through the use of shared databases provided by bibliographic utilities, and acquisition of materials has been standardized and streamlined through computerization. These areas of librarianship and information work, especially cataloguing, which once was 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. 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, has also contributed to the prominence of paraprofessionals in the LIS work hierarchy (Congress on Professional Education (COPE, United States) 2003: 36; Kenney 2003: 18).

Advances in ICTs, particularly the World Wide Web and the Internet, have catalyzed the creation of the knowledge economy which in turn has brought about a whole range of opportunities and excitement in the roles of information professionals. As the information needs of individuals in the knowledge economy have become more complex and demanding, so too have the roles of LIS paraprofessionals evolved into taking over the roles of professional librarians in providing basic reference services (once exclusively the responsibility of librarians), thereby “releasing the professionals to provide other value-added services to the users...” (Tin and Al-Hawamdeh 2002: 333). While traditionally

librarians have been the intermediaries between users and information sources, technology now offers users novel solutions in the form of improved Web interfaces and advice on best searching methods (Biddiscombe 2002: 229-230). This empowerment of the end-user through enhanced connectivity and the concomitant “disintermediation” of the librarian (Biddiscombe 2002: 229) have led to reference and lending services, once the heart of a LIS service, now being carried out by paraprofessionals with librarians moving on to more actively participate in teaching, learning and research processes, or to “partner more directly with those they serve — be it...health care professionals, researchers, educators...” (Shipman 2004: 10).

The process has 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 now play a more active role in the management and administration of their organizations. They may 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 programs serving their constituents.

Thus, various forces have dramatically transformed the role of the LIS paraprofessional over the past thirty years. 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. 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 of LIS personnel. This, in turn, has forced library schools to reassess their curricula to meet the challenges posed by the changing roles of LIS professionals. It also necessitates the development of suitable education and training programs for LIS paraprofessionals, including the integration of liberal arts education.

Paraprofessional LIS education and training

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.

Traditionally, while librarians have been taught to understand the relationship between the task at hand and the significance of library and information work to society in general, paraprofessionals have been taught to understand how the task fits into an individual library’s operation with emphasis on task performance rather than on the theory and other general education components that are characteristic of vocational education located at the degree level in a university setting — professional education has a conceptual focus while paraprofessional education has an operational focus (Weihs 1997: 44). The former type of education, because of its general nature and lifelong learning value, equips the professional to function in any LIS services context while the latter type, even though it affords the individual more practical and technical expertise, has a narrower focus on LIS processes and procedures prevalent at the time.

Both professionals and paraprofessionals are critical to LIS services, particularly in view of the “weakening of the traditional job boundaries” and the redefinition of their roles (Edmond, Hillier & Price 2007: 172) in the current knowledge society. While professional education continues to develop to accommodate the new role functions of librarians, paraprofessional education has largely continued to focus on pragmatic aspects of information management. As paraprofessionals are increasingly being utilized in significantly upgraded roles, including those of lower management (or even the management of solo libraries and records centres in schools, businesses and cultural organizations), their need for the skills that, at least partially, defined professional librarianship increases. In this context liberal arts education has a significant role to play in the education and training of LIS paraprofessionals.

Liberal arts in paraprofessional LIS education and training: South Africa

Currently in South Africa, paraprofessional LIS education and training is located in the university of technology and not in the traditional university where professional LIS education is provided. The university of technology focuses on “the applied value of knowledge and cultivation of job-related skills” while the traditional university emphasizes “high-level scientific research, within the spirit of ‘pursuing knowledge for its own sake’” (Imenda 2005: 1413). While initially up to six higher education institutions offered paraprofessional LIS education and training in South Africa, over the last ten to fifteen years many of these programs have been phased out as a result of both a national and an international trend of small academic departments in higher education being closed down mainly due to economic pressures. Today it is just the Durban University of Technology and the University of South Africa (a distance education university that offers both traditional university and university of technology programs) that offer paraprofessional LIS education (Raju 2005). The latter too recently announced its phasing out of the LIS paraprofessional program (LIS Schools [South Africa] Indaba [Meeting] 2006). This is indeed a pity, especially in the light of the current government’s transformation of education to redress injustices of the apartheid era. Part of the agenda of this transformation is the proliferation of public and community libraries (Ministry of Arts and Culture (South Africa) 2006) which would require the skills particularly of paraprofessional LIS personnel. As indicated earlier, paraprofessionals are increasingly being used to manage small libraries which include community libraries and branches of public library services.

A typical university of technology paraprofessional three-year LIS Diploma curriculum is presented in Appendix A. Apart from Human Studies, Literature Studies, Psychology in Organizations and the Languages, very little else is offered by way of liberal arts or general education (refer to Appendix A). The second author of this paper, as part of a wider study on LIS education and training in South Africa (Raju 2002), asked LIS academics if they thought it necessary for the university of technology (then referred to as a technikon, the South African equivalent of the polytechnic found in other parts of the world) LIS Diploma to incorporate liberal arts education. There were mixed reactions from the 52% (34) of LIS academics in South Africa (65) who participated in the study. Six (17.6%) of the 34 respondents did not respond to the question. Ten (29.4%) indicated

that it was not necessary with the main reason being that the focus in the LIS Diploma is on application and that this is a program designed for technicians and is meant to produce paraprofessional staff who would occupy support positions in LIS services. Eighteen (52.9%) of the 34 LIS academics surveyed, however, indicated that it is necessary for the LIS Diploma to incorporate liberal arts education and interestingly the following were some of their explanations for this response:

- Liberal arts education provides the basis of good service and enhances depth of service;
- Liberal arts education would open students' minds thus making diplomates more employable and better human resource material;
- It is necessary for equivalence of qualifications and articulation possibilities to allow for horizontal and vertical interchange between university of technology (then technikon) and traditional university LIS programs; and
- Some liberal arts education would be useful to provide some broad knowledge base for further education and training and for articulation to higher levels of the profession – extended liberal arts education is not necessary as the Diploma trains for paraprofessional positions.

Respondents who felt strongly that liberal arts education should be integrated into the LIS Diploma curriculum as “this is currently the main shortcoming” of the paraprofessional program, suggested that subjects such as History, Sociology, Science and Philosophy should be incorporated. Interviews with a selected sample of LIS managers and staff currently (2007-2008) being conducted by the second author in South Africa as part of a wider study looking into efficient and resourceful use of both professional and paraprofessional staff in LIS services, have also revealed the general sentiment that the lack of liberal arts content in the LIS Diploma curriculum is a major shortcoming affecting job functions allocated to LIS paraprofessionals, thus reiterating findings of the earlier study. While the literature and empirical evidence demonstrate the centrality of liberal arts education in the education and training of LIS professionals (refer to Raju 2004), there also seems to be a strong feeling that it also has a significant role to play in paraprofessional LIS education and training; not only in terms of enhancing the quality of LIS services (particularly in view of the recent more enhanced roles being played by LIS paraprofessionals with the advent of the ICT-driven knowledge society), but also in terms of providing the LIS paraprofessional with a more complete education that enhances possibilities for further education, especially into higher levels of the profession.

It is evident that the LIS Diploma curriculum in South Africa currently falls short of a stronger presence of liberal arts content. While subjects such as Human Studies, Literature Studies, Psychology in Organizations and the Languages go some way in addressing the issue of liberal arts education, the first two years, at least, of the three-year paraprofessional program should incorporate much more liberal arts content as evident in the case of the paraprofessional program in Québec, Canada.

Liberal arts in paraprofessional LIS education and training: Québec, Canada

The Québec system of post-secondary education

Within Canada the educational systems are organized and administered provincially; the approaches across the country differ considerably. Outside of Québec, publicly-funded primary and secondary education covers 12 years (excluding kindergarten). Students are then expected to leave school, and to go on to community/technical colleges, or to university at their own expense.

Québec has a population centered in two large cities and several smaller ones, primarily in the south of the province. The rest of the population is scattered in rural areas in the south, while the north is more sparsely populated. In the 1960s Québec changed its approach to post-secondary education quite radically. At that time there were seven years of primary school and four years of secondary school. Since the population is very dispersed, many people did not have the opportunity to study further unless they were able to move to a population center. Additionally, for many, post-secondary education was not a priority, and/or was unaffordable. There were negative implications for literacy, employment needs, intellectual needs, etc.

In response to this, the Ministry of Education (Ministère de l'Éducation) set up a system of publicly-funded colleges across the province, to give access to general and technical education to all residents following graduation from grade 11. Known as *Collèges d'enseignement général et professionnel* (Colleges of general and professional education) or *cegeps* (in English pronounced say'-zheps), they offer a variety of professional/technical three-year (six semester) programs, as well as two-year (four semester) pre-university programs in the Arts, Social Sciences and Sciences. *cegeps* are essentially free to all residents of Québec — students are responsible for a small registration fee (currently \$142/semester) and for their books. A unique aspect of the *cegep* system is that pre-university and professional-program students share a core of general education courses.

The standard path for residents of Québec to attend university in the province is to finish secondary school, attend two years of *cegep*, studying in their areas of interest, and then to apply to university for three to four years of study, depending on the degree. Students completing a professional college program may elect to continue to university as they will have all the necessary prerequisites for general admission through their general education courses.

Over the years the Ministry of Education has performed periodic assessments of the various components of college education. Each assessment has reaffirmed the importance of general education in paraprofessional/technical programs. The following excerpt from a 1992 report describes the Ministry position succinctly:

At a time when widespread attention is focusing on occupational skills and leading-edge technologies, demand for a basic general education, by employers and industry, is at an all-time high. More than ever, basic skills

and transferable knowledge, “culture” and personal attitudes have been pinpointed as those capacities that will ultimately make the difference in an individual’s personal and social life, and on the labour market. A good command of one’s own language, knowledge of other languages, ordered thinking, openness to history and cultural realities, creativity, independence, a sense of responsibility, the ability to work in a team, a critical mind, a conscience, etc. are all attributes that the business community and the education system stress. More than ever Québec’s colleges, and its education system as a whole, must be a locus of culture, basic knowledge, and diverse, broad education.

(Québec 1993: 17)

The goal in providing these general education courses is thus to:

provide students with a common cultural core, to help them learn and develop generic skills, and to foster desirable attitudes. The desired outcomes are to educate students, to prepare them for their role as responsible members of society and to enable them to share in the common cultural heritage.

(Québec 1998: 1)

Refer to Appendix C for a listing of the Ministry of Education’s specific goals for general education.

Paraprofessional LIS education in Québec

Paraprofessional education in the LIS field is offered through a three-year program (refer to Appendix B for an exemplar) offered at six cegeps; the language of instruction is French in five of the cegeps and English in the remaining one. Program outcomes are specified at the Ministerial level, and although individual cegeps are given the freedom to implement requirements according to local needs, each program must provide a curriculum that focuses on these specified technical and general education outcomes. The program, known as *Techniques de la documentation* (the title used in English is Information and Library Technologies) has been in existence since 1970, and has undergone systematic Ministerial revisions over the years to ensure compatibility with technological change and workplace demands.

Prior to the last major revision, the Ministry of Education conducted a series of focus groups/workshops with working technicians, representatives of the various professional associations and representatives of the cegep programs. Concerning general education issues, the findings were that technicians must have a basic general knowledge that touches on all disciplines, an awareness of history that allows them to understand the evolution of the different fields of human endeavour, and an understanding of how to stay up to date in their general knowledge. The necessity for excellent communication and problem-solving skills was also highlighted. Among the attitudes and abilities that were considered important for effective job performance were: curiosity and a desire to learn, the ability to exercise judgment, the ability to analyze and synthesize, autonomy, the

ability to adapt to new situations, and respect for professional ethics (Québec 1995: 49-50,52)

The general education courses comprise just over a quarter of the diploma requirements (660 contact hours out of 2475 total contact hours). In the Anglophone college system this translates as:

- four courses in English composition and literature*
- two courses in French composition and literature*
- three courses in the Humanities, one of which focuses on ethics*
- two courses in a complementary field outside the Social Science domain (since LIS is classified as a Social Science discipline by the Ministry)
- three courses in Physical Education. The focus in these courses is the development of a healthy lifestyle in terms of nutrition and exercise, as well as on skill acquisition.

* Note that in the Francophone colleges, the proportion of English and French courses is reversed, and *Philosophie* is emphasized instead of the Humanities.

As indicated above, students from the various professional and pre-university programs take these courses in common, and thus are exposed to viewpoints outside their chosen disciplines, both among themselves and through instruction.

In addition to mandating the types of general education courses, since 1996 the Ministry requires that programs encourage the development of specified abilities. In the John Abbott College Information and Library Technologies (ILT) program, these have been defined as:

1. Problem-solving
2. Analysis & synthesis
3. Valuing (including professional and personal ethics)
4. Communication
5. Social interaction (including the ability to work in teams)
6. Professional behaviour

The first four of these are strongly linked to the goals of liberal arts education, as noted above. The last two are built on the preceding attitudes and abilities

Impact of the Québec general education model

Over the past fifty years, formal education for LIS paraprofessionals has become the norm in most settings in Canada. Although on-the-job training still exists, a college diploma is usually necessary for job mobility. In Québec it is generally acknowledged that the three-year professional programs have greatly enhanced the skill levels and flexibility of paraprofessional staff; most job postings for paraprofessionals require a college diploma in *Techniques de la documentation*.

For some technical programs, there exists the possibility of 10-18 month programs that result in ‘attestations of collegial studies’ (AEC). An AEC has no general education component. During the last general evaluation of the *Techniques de la documentation*

program in 2000, there was discussion of the possibility of converting the ILT program to an AEC, so as to attract students interested in a shorter educational period. However, after consulting with employers, the following was concluded:

Une bonne culture générale et une formation complète par le biais d'un Diplôme d'étude collégiale (DEC) apparaissent nécessaire. Quelques personnes précisent le caractère insuffisant d'une attestation d'études collégiales.

(translation: Good general knowledge and a complete training through the acquisition of a college diploma (DEC) appear necessary. A number of people specified that an attestation of collegial studies is insufficient.)

(Collège Lionel-Groulx 2000: 37)

It further emphasized that students must 'learn to learn' and to be aware of the importance of continued learning (Collège Lionel-Groulx 2000: 37). The technologies and job descriptions change rapidly, so LIS technicians must be able to learn and adapt quickly in order to be successful in their professions.

In the 2002 evaluation of the ILT program at John Abbott College employers and fieldwork supervisors were asked about abilities most valued in the workplace. Near the top of the list were autonomy and adaptability. The responses from graduates who were surveyed about the utility of general education courses were positive. For example:

A library and information technician or specialist should have a "rounded" education, touching on as many fields as possible (arts, science, business, etc.), so the general education helps to develop this. Perfecting the language skills in English and French is very important.
-- Graduate

(John Abbott College 2003: 6)

In relation to general education, the report concluded that:

General education courses are considered essential to the program. The nature of information management requires that both professionals and paraprofessionals (technicians) have good general knowledge and good communication skills. For example, in order to classify library materials in either of the two major classification schemes [this refers to Library of Congress Classification and Dewey Decimal Classification, the two systems used most commonly in Canada], technicians must have at least a general understanding of the various disciplines of knowledge and how they are differentiated. They must also be able to use general knowledge frameworks to answer the many different types of questions posed by people seeking information.

(John Abbott College 2003: 5)

Discussion

While this paper has earlier outlined the general value of liberal arts education in the educational preparation of an individual, there are also very practical aspects to including a strong liberal arts component within a LIS program. Paraprofessionals must learn to use classification schemes and subject heading lists drawn from a variety of sources. Their abilities to handle the subject analysis, to understand classification schemes and to make judicious choices are greatly enhanced if technicians have some knowledge of disciplines outside library and information science. It is difficult for students to develop their analytical skills in these areas when they lack the knowledge that underpins the structures used in information organization. Similarly, abstracting, indexing and developing thesaural relationships are very challenging, since they require highly developed analytical reading skills and the abilities to frame conceptual knowledge. Even descriptive copy-cataloguing is easier (and more interesting) if one has an understanding of the material that enhances decision-making. Although it can be said that paraprofessionals focus on the practical/technical aspects of information management, the fact remains that almost all library functions require good general knowledge. Both in the classroom and on the job, the knowledge acquired through liberal arts education facilitates further knowledge and skill acquisition.

As important to LIS students as the content acquisition, are the abilities and attitudes that are fostered through the study of the liberal arts — the development of what Sullivan and Rosin refer to as ‘practical reason’ (2008: 45), the abilities to cope with change, to exercise judgment, to problem-solve effectively, to understand their activities within the wider contexts of the LIS profession and the communities served. These abilities and attitudes aid in the acquisition of skills and knowledge within the programs, and ensure that after paraprofessionals graduate, they will be able to adjust themselves to workplace demands, commit themselves effectively to life-long learning and conduct themselves in a professionally responsible manner. As the first author can attest, teaching to the development of abilities and attitudes is a challenge, but the reward is teaching students whose progression in their ability to learn and communicate over the three years is very noticeable.

It is evident then that the incorporation of a strong liberal arts component in the paraprofessional LIS curriculum, as in the case of Québec, has clear benefits for classroom engagement, for students’ personal development and for the LIS work environment. Unfortunately, as in the South African case, most paraprofessional programs throughout the world do not include a significant proportion of liberal arts education and could do well to draw from this case of best practice in Québec, Canada. This comparison also has other lessons for South Africa. In view of the enhanced roles of paraprofessionals brought about by a ‘downshifting’ in the LIS work hierarchy as a result of the rapidly changing information environment, it is indeed a pity that the number of LIS paraprofessional programs have dwindled so dramatically in South Africa over the last ten to fifteen years; yet Canada enjoys a proliferation of such programs with the LIS work environment responding to the existence of these qualifications. The educational transformation currently taking place in South Africa requires more public

and community libraries as indicated by the Ministry of Arts and Culture and, in terms of discussions above, LIS paraprofessionals are well placed to run such LIS services. The closure of LIS paraprofessional programs is clearly an issue that needs to be re-visited by the South African LIS fraternity.

A further lesson lies with the issue of articulation into university programs. The lack of significant general education in the South African paraprofessional program stifles possibilities for articulation into university programs for further education either in LIS or other disciplines. The Québec case of the inclusion of general education courses at the college level allows for easy articulation into university programs with the liberal arts prerequisites for general admission being fulfilled at the college level. Here too lies a lesson for South Africa and other jurisdictions in terms of the benefits of incorporating general education into paraprofessional programs.

For Québec, the comparison undertaken in this paper highlights the richness and depth given to their LIS paraprofessional program by the incorporation of a strong liberal arts component that enhances personal and professional development. Curriculum planners should continue to develop these aspects in response to local needs as well as to the changing needs of a continually-evolving information environment.

There might be concerns (as intimated in the empirical findings in the Raju (2002) study) that the addition, or increase, of liberal arts in a paraprofessional curriculum might create library technicians with the same training as professionals and hence threaten librarians. Professional education, as outlined above, is moving into different realms in response to the changing information environment and it is time for paraprofessional education to follow suit. Indeed, the reality is that the LIS professional/paraprofessional divide in the current knowledge society falls along different lines than it did twenty years ago, and it is appropriate and relevant that paraprofessional education too should make its own paradigm shift in response to this reality.

Conclusion and recommendations

In a context of a redefinition of the roles of LIS professionals and paraprofessionals, catalyzed by the emerging knowledge society, the inclusion of a strong liberal arts component undoubtedly enriches the paraprofessional LIS curriculum and provides it with depth which ultimately benefits the individual taking the program, the individual's future employers and society in general. The core lesson from the comparison undertaken in this paper is for paraprofessional curriculum designers, both in South Africa and in other parts of the world, to draw from this best practice and enrich their own programs for the benefit of their students, the LIS work place and society in general by looking at ways of integrating a strong liberal arts component into their paraprofessional curricula. Hence this comparison in paraprofessional LIS education and training between Québec, Canada and South Africa has served the useful purpose of (to repeat Brewer's (2003: 33) words on the value of comparative methodology) identifying "variations" that can "contribute useful knowledge to the betterment of society".

APPENDIX A

NATIONAL DIPLOMA: LIBRARY AND INFORMATION STUDIES

(a three-year diploma located in a university of technology in South Africa)

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 language (Communication theory; correspondence; oral communication; intercultural communication.)

Afrikaans (local language spoken in many parts of South Africa) (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 Organizations (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; techniques and tools in bibliographic control.)

Library and Information Technology III (The digital library: evolution; strategic planning; funding and costs; collection and preservation; retrieval.)

Experiential Learning/Work Integrated Learning (Fieldwork in a recognized library or information service; distributed over the three years as individual academic programs require.)

APPENDIX B

COURSE REQUIREMENTS FOR THE INFORMATION AND LIBRARY TECHNOLOGIES PROGRAM, JOHN ABBOTT COLLEGE, QUEBEC

Semester 1

Profession of Documentation Technician (Introductory course)

Reference Work (Basic reference service; print resources)

Automation and Documentation I (Word; e-mail; Windows; basic internet)

English 1 (Composition; intro to literature – choice of classes/topics)

French 1 (Oral and written, level depending upon placement)

Physical Education 1 (Lifestyle, responsibilities for health and wellness – choice of classes/topics)

Humanities 1 (World views – choice of classes/topics)

Complementary 1 (From outside the domain of social sciences: eg. Science, Fine arts, Languages)

Semester 2

Communication & Teamwork (General skills applied to library and records management settings)

Automation and Documentation II (Advanced Word; Excel)

Special Reference Sources (Electronic resources; specialized reference services)

English 2 (Literary genres – choice of classes/topics)

French 2 (Oral and written, level depending upon placement)

Physical Education 2 (Activity and skill development – choice of classes/topics)

Humanities 2 (Knowledge; knowledge transmission, ways of knowing – choice of classes/topics)

Complementary 2 (From outside the domain of social sciences: eg. Science, Fine arts, Languages)

Semester 3

Physical Processing and Preservation (basics for both library and archival settings; emergency preparedness)

Cataloguing I (Descriptive cataloging; print, electronic resources; film; continuing resources)

Principles of Classification (General principles; introductions to Dewey Decimal and Library of Congress Classifications; specialized classification schemes)

Introduction to Records Management & Archives (General principles; application of retention schemes)

Public Relations (Library outreach and public relations)

English 3 (Literary themes – choice of classes/topics)

Physical Education 3 (Active living – choice of classes/topics)

Semester 4

Cataloguing II (Main entries and added entries; cataloguing of recorded music, maps)

Circulation (Manual and automated systems)

Dewey Decimal Classification

Indexing: Subject Headings (Library of Congress Subject Headings; Sears Subject Headings; Canadian Subject Headings; Les vedettes-matières de Laval)

Records Management (creation of retention schemes & classification schemes; electronic and print documents; automated systems)

English 4 (Discourse analysis focused on effective and ethical communication through the study of literature and culture – choice of classes/topics)

Humanities 3 (Ethics - choice of classes/topics)

Semester 5

Information Retrieval I (Searching techniques; specialized databases)

Acquisitions (Print and non-print resources; serials control)

Documents and their Producers (Canadian publishing industry; international publishing; government documents)

Indexing & Abstracting (Abstracting; thesaurus development; periodical, database, book and website indexing)

Archives (Organization and retrieval of archival documents; rules for archival description)

Computerization & Documentation (Integrated library systems; library databases)

Document Formatting (Desktop layout and html coding)

Library of Congress Classification

Semester 6

Information Retrieval II (Advanced retrieval)

Working Environment I (Fieldwork placement in an archives or records management situation – 105 hours)

Working Environment II (Fieldwork placement in a library – 105 hours)

The Document Centre (Special libraries; library management)

Collection Development

APPENDIX C

THE GOALS OF GENERAL EDUCATION IN QUEBEC

The Common Cultural Core

Transmission of the common cultural core is aimed at allowing students to develop or acquire the following:

- mastery of the language of instruction as a tool for communication and reflection, and mastery of the basic rules of rational thought, discourse and argumentation;
- the ability to communicate in other languages; primarily French or English;
- openness to the world and to cultural diversity;
- appreciation of the riches of their cultural heritage through familiarization with the accomplishments of human civilization;
- the ability to situate themselves with respect to the major schools of thought;
- the ability to think critically, independently and reflectively;
- personal and social ethics;
- mastery of knowledge relevant to the development of physical and intellectual well-being;
- awareness of the need to develop habits conducive to good health.

Generic skills

General education allows students to acquire and develop the following generic skills:

- conceptualization, analysis and synthesis;
- coherent reasoning;
- critical judgment;
- articulate expression;
- the ability to apply what they have learned in analyzing situations;
- the ability to apply what they have learned in determining appropriate action;
- mastery of work methods;
- the ability to reflect on what they have learned.

Desireable Attitudes

Cultural literacy and generic skills help students acquire and develop the following attitudes:

- autonomy;
- a critical sense;
- awareness of their responsibilities toward themselves and others;
- openmindedness;
- creativity;
- openness to the world.

Source: Québec. Ministère de l'Éducation. Enseignement supérieur. 1998. *General education*. Québec: le Ministère. p.1-2.

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