A comparison between needed competencies of academic librarians and LIS curricula in Pakistan

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Keywords

Pakistan, Librarians, Academic libraries, Professional qualifications, Competences

Abstract

Rapidly growing academic libraries are the major consumers of the product of seven LIS schools in Pakistan. The changing environment of academic life demands new competencies in academic librarians. This paper reviews the literature on the competencies needed for academic librarians in the Asia/Pacific region and discusses the changing environment of academic librarianship in Pakistan. It provides a list of competencies needed for entry-level academic librarians, first prepared on the basis of a literature review and, then, validated by 70 chief librarians of universities and postgraduate level colleges from the public and private sector. The validated list of competencies is compared with the curricula of LIS programs. The paper highlights the deficiencies in the curricula and their implementation and recommendations are given to improve the situation.

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The Electronic Library
Volume 21 · Number 2 · 2003 · pp. 99-109
 · ISSN 0264-0473
DOI 10.1108/02640470310462434

Introduction

With a growth of 100-200 percent during the last 20 years, there are currently 43 universities and about 1,600 general, professional and vocational colleges in Pakistan (Pakistan, Finance Division, 2000). A library with professionally qualified staff is a legal requirement to establish an educational institution. Therefore, each university or college, either in the public or in the private sector, does have a library with necessary facilities and at least one qualified librarian. A tertiary-level LIS education is a required professional qualification for the position of librarian throughout the country. Being more in number, academic libraries are major consumers of the product of LIS departments at seven universities that offer postgraduate level LIS education.

A total of seven universities, representing various provinces, are conducting master's degree programs (Allama Iqbal Open University has started its MLIS program through distance education in Spring 2001), and most of them call their first year program a postgraduate diploma/bachelor's degree in LIS. The estimated annual production of these LIS schools is 250 to 300 graduates.

Changing environment of academic libraries in Pakistan

For the last two decades, academic libraries of the world have been going through a great change. Pakistan is not an exception. The most revolutionary change libraries face is the speedily growing information and communication technology. In a country with a very low per capita income of $480, which is not even sufficient to survive, the use of information technology is increasing rapidly. The growth rate in the use of personal computers is 30 percent per year while the annual growth rate of the use of Internet in Pakistan is 60 percent (Memon, 2001). In Pakistan, Internet service providers (ISPs) started to provide Internet services in 1996 and now there are 122 ISPs in the country. By the year 2000, there were 250,000 Internet subscribers in Pakistan (Khan, 2001).

Although, according to a survey, educational and research institutions in Pakistan ranked last in using computers (Quraishi, 2000), now, the Government is taking special interest in this matter and has

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started to implement a new IT policy. The major points of this policy applicable to the academic institutions include:

- provision of free leased line Internet access to the public sector universities;
- establishment of a wide-band intranet, Pakistan Educational Intranet (PEI), consisting of all public and private educational institutions, for sharing teaching and research resources;
- establishment of IT labs at major public and private sector universities, colleges, government training institutes and schools; and
- inclusion of a compulsory course on IT in graduation programs of all subjects (Pakistan, Ministry of Science & Technology, 2000).

According to a survey, 26 percent of the university libraries in Pakistan were using technology in their housekeeping routines (Khalid, 1998). Another survey revealed that half of the university libraries of Pakistan were using the Internet (Saeed *et al.*, 2000). Although, the newer kinds of information technologies such as computers, multimedia and CD-ROMs are bringing unprecedented abilities to Pakistani libraries, these same technologies are also bringing greater responsibility to current library staff. The automation and networking of libraries demand a group of librarians to engage in the exploration of applied software and the installation and maintenance of automation systems and networks. Additionally, with an increasing number of information media, library staff must strive to remain competent navigators of each medium in order to assist library patrons. Finally, the complexity of information processing and storage systems increases with each new technology introduced and librarians are compelled to attempt to keep up with these changes.

Economic recession is another problem faced by academic libraries throughout the world. The federal and provincial governments are the major funders of tertiary education in Pakistan. Academic libraries have never been properly financed. Lack of staff, lack of updated reading material and lack of other facilities are the common problems among academic libraries. For having their share in the institution's meager budgets, libraries have to compete with other academic units. With decreasing budget, accountability is increasing and library managers have to justify their demands for funds.

Good governance is also a problem of all public sector organizations including educational ones. Government institutions are victims of corruption and sluggishness. Keeping in view the poor performance, the government has started to privatize public sector organizations. Another alternative to achieve good governance is to decentralize the public institutions and to this end a number of large educational institutions have been given administrative autonomy. To overcome the problem of poor quality of education, the recent education policies have recommended private/industrial participation in the decision-making process of public sector educational institutions (Pakistan, Ministry of Education, 2000).

On the recommendation of the IMF and the World Bank, and to put the country's economy back on track, the Pakistan Government has started a massive downsizing in public sector organizations. Starting from financial institutions this policy is rapidly spreading over all ministries and departments. The Government has planned to get rid of an estimated 200,000 employees (Abbas, 1997). To cope with the financial pressure, the government compels educational institutions to become self-reliant. The Government has allowed public sector universities to raise their fees at the rate of 10 percent every year. Moreover, they are allowed to offer 10 percent admissions on a self-finance basis. This is also a step toward privatization of public sector institutions.

The growing education industry in the private sector is another issue librarianship is facing. In the 1990s, a large number of universities and colleges were opened in the private sector. Moreover, foreign universities have established campuses at various big cities throughout the country. Bearing in mind the growth rate of private sector educational institutions it can be presumed that during the next five years it will become the largest job market for LIS graduates. This changing scenario of academic librarianship in Pakistan obviously demands an LIS work force with new competencies.

Competency-based LIS education

The definition of a competency is controversial. In earlier times (a decade or so

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ago), competence was considered in terms of the personal characteristics one had; competence was judged on the basis of the quality of one's character, virtue, innate abilities, and underlying attributes. Today, however, competence is considered more in terms of skill-oriented behavior and observable actions measured against quantitative standards; one's competence is judged on the basis of whether or not learned mental and physical tasks can be performed. Current thinking of many is that competency can be taught, and competency can be measured. One current definition is that a competency is having the capacity, skills, and knowledge to function in a particular way; another is that a competency is what a person knows; while still another is that a competency is evidence that one can produce desirable outcomes (Corbin, 1993). The Council of Europe defined competency as "the set of knowledge and skills that enable an employee to orient easily in a working field and to solve problems that are linked with their professional role" (Webber, 1999).

The literature of LIS is full of studies on competencies needed for various types of librarians. A number of competency lists are available. However, this section introduces some readings on needed competencies of academic librarians and surveys conducted in recent years in the Asia/Pacific region.

The International Federation of Library Associations and Organizations' (2000) guidelines for professional library/information educational programs recommended that the core elements in an LIS curriculum should include:

- the information environment, information policy and ethics, the history of the field;
- information generation, communication and use;
- assessing information needs and designing responsive services;
- the information transfer process;
- organization, retrieval, preservation and conservation of information;
- research, analysis and interpretation of information;
- applications of information and communication technologies to library and information products and services;
- information resource management and knowledge management;
- management of information agencies;
- quantitative and qualitative evaluation of outcomes of information and library use.

The Association of College and Research Libraries recommended that library schools should train graduates in theory, principles, and history of librarianship; in-depth knowledge of the higher education environment; preparation for scholarly work; understanding technological issues; conducting information literacy programs; planning and management; assessing library effectiveness; knowledge of legal and policy issues; consideration of ethical issues; and understanding and appreciation of diversity (Reichel, 1999). Yale University Library (2000) has set core competencies for future job performance of its staff. The list covers five areas: resource, interpersonal skills, information, dystems, and technology.

Morgan (1996) grouped competencies that the future academic librarians should possess in addition to core library skills into four areas: credibility with academic staff; teaching and training; IT-related skills; and management skills. Buttlar and Du Mont (1996) asked 736 alumni of library schools what competencies were most valuable in their professional lives. The five competencies most highly rated by academic librarians in the sample were: knowledge of sources in all formats; conduct an appropriate reference interview; apply critical thinking to library problems; communicate effectively in writing; and utilize oral presentation skills to make presentation. In a focus group, 25 students, LIS faculty, and academic librarians determined the role of academic librarians as information professionals. They must: first, be good communicators, second, use good judgment to determine what kind of information and how much information each client needs, and third, either serve as or construct a "bridge" linking the information and the user (Rice-Livey and Racine, 1997).

Giesecke and McNeil (1999) provided a list of core competencies for university librarians. This list includes analytical skills/problem solving/decision making; communication skills; creativity/innovation; expertise and technical knowledge; flexibility/adaptability; interpersonal/group skills; leadership; organizational understanding and global thinking; ownership/accountability/ dependability; planning and organizational skills; resource management; and service attitude/user satisfaction. In a survey, Thomas (2000) determined computer skills required by academic librarians. Searching OPAC and searching Web interface databases

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were the most highly demanded skills of entry-level academic librarians.

In the Asia/Pacific region, we can also find some works on needed competencies. Rehman *et al.* (1997) interviewed 60 top and middle-level managers of academic libraries in Malaysia to validate a list of competencies (knowledge and skills) required by entry-level academic librarians. They divided the list into six operational areas: foundation, cataloging, circulation, information services, collection development, and serials. According to Rehman *et al.* (1998a), middle and top managers of the large libraries of Malaysia perceived that inadequacy of IT skills was the most deficient area in Malaysian librarians. Rehman *et al.* (1998b) carried out a survey to see if there were significant differences between competencies accepted at undergraduate and postgraduate levels. Senior library managers (50 total respondents; 41 working in academic libraries) in the Arabian Gulf region identified 48 higher level competencies (performance evaluation, policy development, designing databases, planning for automation) of a total of 70 – the remainder not being significantly different for either level, except for "acquiring materials" that was favored at the undergraduate level. The competencies were classified into six functional areas: management; information technology; resource development; information service; technical service; and general competencies.

Keeping in view the needs of the Asia/Pacific region, Moore *et al.* (1998) prepared a detailed curriculum for information education. They covered three elements (i.e. knowledge, skills and tools) for creation, collection, communication and consolidation of information. A recent survey of library graduates in Australia, conducted by Middleton (2001), identified 189 skills grouped into nine categories: collection building and management; communication; facilities and equipment; information organization; information services; information systems; management; marketing; and research. Findings show that seven of the top ten ranked skills were in the information service category.

In Pakistan, no-one has ever tried to study the required competencies of librarians. Nothing is available on this topic. However, an analysis of recent job advertisements of academic librarians, particularly in the private sector, shows that the competencies mostly needed are: managing automation of libraries; using electronic databases; having knowledge about library software packages; using Internet; and having good interpersonal skills.

Methodology of the study

Rehman *et al.* (1997, p. 384) emphasized the need for a study on required competencies in these words:

> Competence identification and validation processes provide an objective framework for the design of education and training programmes. They also provide guidelines for determining appropriate educational and training levels for intake and graduation. Education and training programmes can be evaluated against validated sets of competences. In this context, competences provide a sound base for manpower planning in a given field.

Naylor (2000) mentioned eight advantages of developing and improving core competencies in libraries:

(1) Better human resource planning.
(2) More effective training programs.
(3) A list of critical technological capabilities.
(4) An opportunity for a strength-weakness analysis.
(5) Help with outsourcing options.
(6) Guidance for development or change.
(7) Vision of the whole organization.
(8) Innovation is required for survival.

According to Ceppos (1995), failure to consider market demand was one of the reasons of many library school closures in North America.

Based on the above literature survey and the value of having core competencies in Pakistan, this study is an attempt to:

- prepare a list of competencies needed by entry-level academic librarians;
- validate the list of competencies based on the perceptions of senior academic librarians of Pakistan;
- assess the coverage of validated competencies in the curricula of professional LIS education programs.

To achieve the objectives of this study, it was decided to conduct a postal survey of senior academic librarians. For this purpose a list of universities and postgraduate-level colleges/institutes was prepared using the latest available directories (i.e. Imran, 1999; Pakistan, University Grants Commission, 1998, 1999). A list of 75 competencies was prepared based on the literature review.

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Special attention was given to those competencies that were already validated in Asian countries (i.e. Malaysia and Arabian Gulf region). This list was divided into six categories: management competencies; resource development competencies; technical service competencies; reference and information services competencies; information technology competencies; general competencies. The chief librarians of the selected institutions were asked to show their perception about the competencies an MLIS degree holder should possess, keeping in mind the needs of academic libraries in Pakistan during the next five years. Perceptions of the respondents were identified using a scale of 1-9, where 1 was for "not needed" and 9 for "most needed." The validated competencies were then compared with the latest course outlines of seven LIS schools. The analysis of the curricula for each competency statement was carried out using a three-point scale showing "proper coverage," "improper coverage" and "no coverage."

Needed competencies of academic librarians

In total 70 librarians responded to the survey. Out of the respondents, 41 (59 percent) represented public sector organizations while 29 (41 percent) were from private sector institutions. Another indicator shows that 25 (36 percent) belonged to universities and the other 45 (64 percent) were heading the libraries of colleges/institutes. It was also noted that 31 (44 percent) of them were from general institutions while the other 39 (56 percent) were working in professional universities and colleges. Although the respondents showed a varied perception about each competency statement, they validated all statements presented before them. The smallest mean score a statement had is 5.84.

Ten competencies got a mean score of eight or more (Table I). Seven out of the ten most essential competencies validated for academic librarians belonged to the information technology category. This trend of validation data shows that all managers anticipate the use of information technology in the academic libraries in the near future. With a mean score of 8.53, using relevant developments in information technology like e-mail, Internet, intranet, multi-media, imaging, interconnectivity, full-text databases, in-house CD-ROM publishing, etc. was rated number one in the list of 75 competencies. The second most essential competency was converting the functions of cataloging, circulation, acquisition, serials from manual to an automated mode with a mean score of 8.40. Three competencies of other categories that were successful in taking their place in the list of the top ten were leadership skill (management), demonstrating good interpersonal skills and effective verbal and writing communication skills (general) and developing a sound knowledge of ready reference sources (reference and information services) with scores of 8.09, 8.06 and 8.03 respectively. The mean scores of statements belonging to the various categories are presented in Tables II-VII.

Coverage of validated competencies in LIS curricula

The literature of LIS in Pakistan does not show an encouraging view of LIS curricula in the country. Curriculum development has not been taken seriously in library schools. Practitioners have always criticized library schools in Pakistan for not producing manpower of quality. Out-dated and irrelevant curriculum is one of the charges they leveled. Haider (1998) said, "the criticism has always been that the intellectual content of the courses has not kept pace with the demands of the profession." He also summarized the weaknesses of the curricula followed by the country's library schools. Absence of proper feedback from the profession is one of them. Khan (1994, pp. 135-6), a prominent library educator, admitted that, "our Departments of Library and Information Science produce only 'librarians' unsuited to the position which they fill, hoping that they will get rounded in use." Rehman (2000, p. 151) stated:

> There has been no substantial revision in the curricula of the Pakistani library education programs during the last 25 years except some minor adjustments they had to make as they were swinging back and forth in adhering to new academic structures and examination procedures . . . The curriculum is more or less a combination of odds and ends, an unsystematic replica of what might have been the state of the art around the late 1960s or early 1970s in the developed nations. It has little to offer in terms of IT applications.

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Table I Top ten competencies

Rank	Category	Competency	Mean
1	**Info Tech**	Using relevant developments in information technology like e-mail, Internet, intranet, multi-media, imaging, interconnectivity, full-text databases, in-house CD-ROM publishing, etc.	8.53
2	**Info Tech**	Converting the functions of cataloging, circulation, acquisition, serials from manual to an automated mode	8.40
3	**Info Tech**	Planning for library automation: assessing needs, system specification and procurement of resources, etc.	8.30
4	**Info Tech**	Training staff and users in using automated systems	8.29
5	**Management**	Leadership skill	8.09
6	**Info Tech**	Comprehending the impact of information technology on libraries	8.07
7-8	**Info Tech**	Managing automated systems (input, file maintenance, back-up, security, etc.)	8.06
7-8	**General**	Demonstrating good interpersonal skills and effective verbal and writing communication skills	8.06
9	**Ref and Info Serv**	Developing a sound knowledge of ready reference sources	8.03
10	**Info Tech**	Designing and developing Web-based materials and documents for online use	8.00

Table II Coverage of management competencies

Rank	Competency	Mean	S1	S2	S3	S4	S5	S6	S7
1	**Leadership skill**	8.09	NC	IC	IC	IC	NC	NC	NC
2	**Defining mission, role and objectives of an academic library**	7.79	NC	IC	IC	PC	PC	NC	IC
3	**Public relationing to ensure community support (library friends, fund raising, rapport development with faculty and administrators)**	7.77	NC	NC	NC	IC	NC	NC	NC
4-5	**Preparing library budgets and their fiscal management**	7.71	IC	IC	IC	IC	IC	IC	IC
4-5	**Supervising subordinate staff**	7.71	PC	PC	PC	PC	IC	PC	PC
6	**Working in teams**	7.60	NC	PC	PC	NC	NC	NC	NC
7	**Marketing and promotion of library services and products**	7.47	NC	PC	PC	PC	NC	NC	NC
8	**Collecting library use and performance data, conducting statistical analysis, and applying it in planning and decision making**	7.43	PC	PC	PC	PC	PC	PC	PC
9	**Evaluating library performance qualitatively and quantitatively**	7.40	NC	PC	PC	IC	IC	IC	IC
10	**Managing libraries by developing appropriate organizational structure, communication patterns, and human resource development**	7.34	PC	PC	PC	PC	IC	PC	IC
11	**Strategic planning (developing long-range plans and translating them into medium range and operational plans)**	7.24	NC	IC	IC	NC	NC	NC	NC
12	**Organizing extension activities for academic community like displays, talks, seminars, etc.**	7.20	NC	NC	NC	NC	NC	NC	NC
13	**Time management**	7.19	NC	NC	NC	NC	NC	NC	NC
14	**Comprehending the role of knowledge management in libraries**	7.06	NC	NC	NC	NC	NC	NC	NC
15	**Change management by integrating library resources and services with environmental changes**	7.00	NC	NC	NC	NC	NC	NC	NC

Notes: S1, S2, . . . = School number; NC = No coverage; IC = Improper coverage; PC = Proper coverage

The last effort in this regard was carried out in 1995 when a committee of library educators appointed by the University Grants Commission (UGC) prepared a revised curriculum for MLIS (Pakistan, University Grants Commission, 1995). During a period of six years from its approval, only three library schools have adopted it with further modifications.

The course outlines of seven LIS schools were analyzed for the purpose of this study. The category-wise results are presented in Tables II-VII. As Table II indicates, eight out of 15 competencies in the management category are not properly covered in the syllabus of even a single school. Staff management and doing library research are the two skills that are covered mostly. Similarly, marketing and performance evaluation skills were covered by some of the schools. The concepts of time management, knowledge management, change

Table III Coverage of resource development competencies

Rank	Competency	Mean	S1	S2	S3	S4	S5	S6	S7
1	Collection development according to academic or research programs of the parent organization	7.71	IC	PC	PC	IC	PC	IC	PC
2	Using bibliographic systems (OCLC, etc.) and other online tools for acquisition	7.54	NC	IC	IC	NC	NC	NC	NC
3	Developing policies and managing activities for preservation and conservation of library materials	7.51	PC	PC	PC	PC	PC	IC	IC
4-5	Managing the functions of weeding, storage, and gifts and exchange	7.50	NC	PC	PC	NC	NC	NC	PC
4-5	Acquiring materials (ordering, receiving, claiming, invoice processing, etc.)	7.50	PC	PC	PC	IC	PC	IC	PC
6	Developing policies for collection development	7.43	IC	PC	PC	IC	IC	IC	IC
7	Reviewing documents (information sources) and user requests for selection decisions	7.13	IC	IC	IC	NC	IC	IC	IC
8	Developing policies for government documents related to collection development, organization of materials and specialized services	6.81	PC	PC	PC	PC	NC	NC	NC
9	Understanding the processes of printing, publishing and book distribution	5.99	IC	IC	IC	NC	NC	IC	NC
10	Assessing the capabilities of booksellers and distributors	5.90	IC	IC	IC	NC	NC	IC	NC
11	Understanding the international, national and discipline-oriented publishing industry	5.84	IC	IC	IC	NC	NC	IC	NC

Notes: S1, S2, . . . = School number; NC = No coverage; IC = Improper coverage; PC = Proper coverage

Table IV Coverage of technical services competencies

Rank	Competency	Mean	S1	S2	S3	S4	S5	S6	S7
1	Managing serials (acquisition, subscription, union lists, services, preservation, etc.)	7.80	IC	PC	PC	PC	NC	NC	PC
2	Conceptualizing philosophic foundations for retrieval, classification, indexing and cataloging	7.74	PC	PC	PC	PC	PC	PC	PC
3	Developing mastery over information analysis and cataloging systems, rules, and tools (codes, schemes, thesauri, etc.)	7.66	PC	PC	PC	PC	PC	PC	PC
4	Cataloging resources available through Internet	7.46	NC	NC	NC	NC	NC	NC	NC
5	Analyzing content of documents to determine class numbers and subject terms	7.34	PC	PC	PC	PC	PC	PC	PC
6	Original cataloging of materials	7.17	PC	PC	PC	PC	PC	PC	PC
7	Cataloging government documents, organizing collection, and providing services	6.97	PC	PC	PC	PC	NC	NC	NC
8	Cataloging of non-print and specialized materials (like serials, AV, electronic media, maps, manuscripts, etc.)	6.90	PC	PC	PC	PC	PC	PC	PC
9	Developing authority files for cataloging	6.71	PC	PC	PC	PC	PC	PC	PC
10	Cataloging archives, managing archival collection and providing services	6.44	PC	PC	PC	PC	NC	NC	NC
11	Copy cataloging (by using bibliographic utilities like OCLC, Bibliofile, etc.)	6.36	NC	IC	IC	NC	IC	NC	NC

Notes: S1, S2, . . . = School number; NC = No coverage; IC = Improper coverage; PC = Proper coverage

management, extension services, and public relationing are not covered at all. Table III shows that resource development skills were also not properly covered by most of the schools.

All library schools are strong in teaching technical service competencies. Various aspects of classification and cataloging are properly covered (Table IV). Cataloging of Internet resources is not covered at all. Copy cataloging also has weak coverage.

Table V shows that most of the reference and information competencies have weak coverage in the curricula. However, the

Table V Coverage of reference and information services competencies

Rank	Competency	Mean	S1	S2	S3	S4	S5	S6	S7
1	Developing a sound knowledge of ready reference sources	8.03	PC	PC	PC	PC	PC	PC	PC
2	Developing literature searching systems and services (manual and electronic in online or CD-ROM media)	7.99	NC	IC	IC	IC	IC	IC	IC
3	Acquiring mastery on computerized searching for conducting search interview, formulating search strategy, using search tools, conducting and evaluating searches	7.93	NC	PC	PC	PC	NC	NC	NC
4	Assessing information needs and interests of users	7.90	IC	IC	IC	IC	IC	IC	IC
5	Understanding the primary concepts and terminology in the areas of specialization of a special academic library	7.77	PC	PC	PC	PC	NC	PC	PC
6	Helping users in searching catalog and other bibliographic sources/ utilities	7.71	NC	IC	IC	IC	IC	NC	IC
7	Developing policies for reference and information services	7.63	IC	IC	IC	IC	IC	IC	IC
8	Developing specialized information services like SDI, vertical file, content page, clippings, bulletin boards, referral, etc.	7.56	IC	IC	IC	IC	NC	IC	IC
9	Developing policies for resource sharing and cooperation with other libraries (using documents delivery services)	7.44	IC	PC	PC	PC	PC	IC	PC
10	Preparing plans for effective space utilization and furnishing	7.43	IC	IC	IC	IC	PC	IC	IC
11	Developing circulation and collection management policies and managing operations	7.40	IC	IC	IC	IC	PC	IC	IC
12	Developing user education literature and products (brochures, handbooks, pathfinders, videos, slide-tape show, etc.)	7.30	NC	IC	IC	IC	IC	NC	NC
13	Indexing and abstracting	7.13	PC	PC	PC	PC	IC	PC	IC
14	Designing and conducting user education programs	7.01	NC	IC	IC	IC	PC	NC	IC
15	Managing conducive conditions for in-house use (temperature, lighting, seating, etc.)	6.86	IC	IC	IC	IC	PC	IC	IC
16	Information manipulation and repackaging	6.77	NC	NC	NC	NC	NC	NC	NC
17	Providing library services to distance learners	5.94	NC	NC	NC	NC	NC	NC	NC

Notes: S1, S2, . . . = School number; NC = No coverage; IC = Improper coverage; PC = Proper coverage

Table VI Coverage of information technology competencies

Rank	Competency	Mean	S1	S2	S3	S4	S5	S6	S7
1	Using relevant developments in information technology like e-mail, Internet, intranet, multi-media, imaging, interconnectivity, full-text databases, in-house CD-ROM publishing, etc.	8.53	IC	PC	PC	PC	IC	NC	NC
2	Converting the functions of cataloging, circulation, acquisition, serials from manual to an automated mode	8.40	IC	PC	PC	PC	IC	NC	PC
3	Planning for library automation: assessing needs, system specification and procurement of resources, etc.	8.30	IC	PC	PC	PC	IC	NC	PC
4	Training staff and users in using automated systems	8.29	NC	IC	IC	IC	NC	NC	NC
5	Comprehending the impact of information technology on libraries	8.07	PC	PC	PC	PC	IC	PC	PC
6	Managing automated systems (input, file maintenance, back-up, security, etc.)	8.06	NC	PC	PC	PC	IC	NC	NC
7	Designing and developing Web-based materials and documents for online use	8.00	NC	NC	NC	NC	NC	NC	NC
8	Evaluating the performance of the existing automated systems	7.94	NC	PC	PC	PC	IC	NC	IC
9	Designing and participating in larger information systems and networks (LAN and WAN)	7.77	IC	PC	PC	PC	IC	NC	NC
10	Designing and maintenance of in-house databases	7.73	IC	PC	PC	PC	NC	NC	NC
11	Using word-processing, graphics, spreadsheets and similar software packages for office management	7.70	IC	IC	IC	PC	NC	NC	IC
12	Utilizing digitization technology to create documents for online use	7.66	NC	NC	NC	NC	NC	NC	NC

Notes: S1, S2, . . . = School number; NC = No coverage; IC = Improper coverage; PC = Proper coverage

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Table VII Coverage of general competencies

Rank	Competency	Mean	S1	S2	S3	S4	S5	S6	S7
1	**Demonstrating good interpersonal skills and effective verbal and writing communication skills**	8.06	IC	PC	PC	PC	NC	NC	NC
2	**Demonstrating a knowledge and commitment to the ethics and values of the profession**	7.73	NC	IC	IC	IC	IC	IC	NC
3	**Having practical experience of working in an academic library**	7.59	NC	NC	PC	NC	NC	NC	NC
4	**Participating in professional activities outside the library**	7.53	IC	IC	IC	IC	IC	IC	IC
5	**Understanding information theory and dynamics related to information generation, organization and delivery; structure and formats of information in various types of materials and media**	7.06	IC	PC	PC	PC	IC	PC	NC
6	**Comprehending library and information legislation (national and international)**	6.93	PC	NC	NC	NC	NC	IC	NC
7	**Editing library publications**	6.64	NC	NC	NC	NC	NC	NC	NC
8	**Understanding historical background of library and information services in the world**	6.37	PC	PC	IC	PC	PC	PC	PC
9	**Developing desk-top publishing capability**	6.21	NC	NC	NC	NC	NC	NC	NC

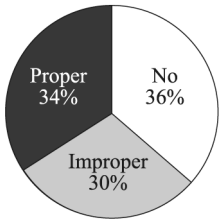
Notes: S1, S2, . . . = School number; NC = No coverage; IC = Improper coverage; PC = Proper coverage

concepts of ready reference sources, knowledge of the area of specialization, resource sharing, and indexing and abstracting are covered properly. Information manipulation and repackaging and providing services to distance learners have no place at all. Table VI indicates that some schools have a proper coverage of most of the information technology competencies while others have poor coverage. Adoption of the UGC recommendations by some schools has guided the direction of curricula towards computerization. Designing Web-based material and utilizing digitization technology are not covered at all.

Table VII shows that most of the general competencies are poorly covered in the curricula. Editing library publications and desk-top publishing capability are not covered at all. Only one school offers internship/ practicum to its students to get practical experience in a real library/information environment.

Figure 1 indicates the total coverage of all validated competencies in the curricula of all LIS schools in Pakistan. Only 34 percent of the competency statements have proper coverage while 30 percent have improper coverage. The other 36 percent of statements are not mentioned in the curricula. These data clearly show how much LIS curricula in Pakistan are ineffective to meet demands of the job market.

Figure 1 Coverage of validated competencies in LIS curricula



Implementation of LIS curricula in Pakistan

The previous section compares the needed skills with the curriculum documents followed by the LIS schools. The question is "are the contents documented in the curricula implemented in true sense?" The contents, although weak in nature, can give good results if they are implemented in letter and spirit. This section tries to throw light on the actual status in this respect.

The success of any teaching program depends on the quality of the faculty. According to Rehman (1994), "The profile of Pakistani library science faculty presents a dismal picture in terms of their academic and professional credentials, research and publication record, and service credentials." There is a scarcity of teachers possessing research degrees. Out of 44 faculty members, only six hold PhD degrees (Pakistan, University Grants Commission, 1998). Because of non-availability of qualified

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persons, all positions of professors and associate professors at four schools have been lying vacant for years. The faculty is not sufficient to provide adequate coverage of the many specialist subjects in the master's curriculum. A number of optional subjects, mentioned in the curriculum document, are not offered to the students due to the shortage of competent faculty and other resources. There is no arrangement for teacher training.

Physical facilities are also an essential part of a successful training program. In the order of priorities, the library schools do not receive much attention by the university authorities. Because of the limited book budget, it is not possible for the library schools to acquire well-rounded collections on LIS. The library schools do not subscribe to current journals. The students and teachers of the library schools, except one school, lack access to the essential reference sources like *Library and Information Science Abstracts* and *Library Literature*.

Owing to the lack of resources and initiative on the part of educators, modern teaching methods are not adopted in Pakistani library schools. Haider (1998), a senior library educator, painted the gloomy picture of some of the library schools. According to him, the traditional lecture method is the most common form of teaching in our universities. Teachers spend hours standing in front of the class discussing different reference sources without having a practical use of them. The courses on management are taught without making use of case study method. The cataloging of special material is taught without using the actual material; the course on "Comparative classification" is taught without having necessary classification schedules. The courses on "Bibliography" are taught without sources like *CBI, BNB, Book Review Digest, Ulrich*, etc. Even the old editions of these bibliographies are not available to the students. The same situation is found in the courses on "Library automation." Students are just theoretically introduced to the basics of computing without any sort of demonstration, and no hands-on experience. Only one library school has, in the true sense, the facility of a computer lab and a part-time teacher qualified in computer science. The other schools only have two to four computers each, which are not used for instruction purposes.

Recommendations

In order to improve the situation regarding LIS education in Pakistan, the following points should be taken into account immediately:

- An extensive study of changes that are taking place in LIS profession in developed and developing countries.
- A comprehensive study of competencies needed in various types of libraries in Pakistan (even for various job positions in a library).
- A complete revision of LIS curricula in the light of competency study.
- An increase in the number of hours of education if needed to prepare a librarian with more skills.
- Proper arrangements for teacher training.
- A system of accreditation at national level to observe quality and standards.
- Proper provision of physical facilities, i.e. a computer lab with variety of modern technology; a sufficient book budget; subscription of at least ten to 15 journals including *Library Literature* and *Library and Information Science Abstracts*; multi-media lab with necessary equipment; technical processing lab with latest tools; etc.
- Institution of modern teaching and learning methods instead of the traditional lecture and textbook technique.
- Institution of compulsory internship/ practicum in various types of libraries.

Conclusion

The study outlined above has exposed a deplorable picture of the state of LIS education in Pakistan. The course contents that are being taught in our library schools have badly failed to produce librarians who are really required by our libraries. The rapidly changing environment of academic libraries needs attention of the authorities that manage LIS education in the country. Information technology competencies demanded by most of the institutions require a particular emphasis. If LIS schools cannot prepare themselves to cope with the change, their product will be useless in the market. As a result, the graduates of any other discipline will take over the job market of librarians. This situation cannot continue like this and a number of recommendations have been made in an attempt to improve the situation for Pakistan.

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