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Needed Competencies for Library and Information Faculty Members in Pakistan

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Abstract

The present qualitative study is aimed to explore the needed competencies of library and information educators in Pakistan during changing times. Data were collected by employing qualitative approach. In depth-interviews were conducted with17 faculty members to explore their perceptions about the knowledge areas and skills required to be competent enough for deliver quality education to future information breed. The findings put forward various competencies needed for library and information educators including (i) subject knowledge and skills, (ii) IT knowledge and skills, (iii) instructional skills, (iv) research skills and (v) managerial, leadership and social skills. The findings presented in the paper provide a unique insight to understand the needs of this workforce in the country. Though conducted in Pakistani perspective, the study findings may have implications for other countries with similar context. **Keywords:** LIS educators, information education, Pakistan, needed skills, library and information faculty, LIS academics.

Introduction

Library and information science (LIS) academic programs have been continuously evolving since 1887, shifting their focus form libraries to information. A number of factors are responsible for bringing this change in LIS landscape, out of which the information revolution is playing a catalytic role. With the introduction of new information sources and formats, dynamic delivery channels, sophisticated information technologies (IT), digitization etc. has led to the changing dimensions. These developments have continuously driven LIS educational institutions to frame survival strategies in order to prepare well-equipped graduates with the required competencies, through reorienting focus of academic programs, redesigning their curriculum, hiring relevant faculty and expanding the scope of teaching programs (Pettigrew, & Durrance, 200; Xue, Wu, Zhu & Chu, 2019). Contents and standards of curriculum, infrastructural facilities are no doubt important for imparting quality of LIS programs. But the faculty members are the key people, responsible for implementing the curriculum in true letter and spirit (Bakar, 2005). Succinctly, LIS academics play a vital role in imparting quality education and inculcating the required competencies to their graduates. While, there is abundant of literature identifying, discussing and debating the needed competencies of future information professionals, very little is known about the competencies of educators who are responsible for preparing the future breed (Partridge et al., 2011). Keeping this in view, the present qualitative study was design to investigate the competencies needed for LIS academics during changing times. The findings of the study provide valuable insights to develop and contribute to the workforce planning of LIS educators in Pakistan.

LIS Educators in Pakistan

The account of LIS academics in Pakistan is intertwined with the historical legacy of LIS education in the country, as University of the Punjab (PU) was the third one in the world and first ever in Asia to offer a formal seat of learning at university level in 1915. The first educator was Asa Don Dickinson who was an American librarian and a direct pupil of Melvil Dewey (Kaser, 1992). Dickinson was assigned to train working librarians of PU and its affiliated colleges. He delivered a series of lectures for a month on modern library methods, followed by practical training for three months to a class of thirty working librarians (extracts from the diary of Dickinson, as published in PLA journal, 1968). He also authored the 'Punjab Library Primer', which is considered a first ever textbook of library education (Anwar, 1990; Kaser, 1992; Lang, 1968). After Dickinson departure in 1916, the course remained suspended for two years perhaps due to non-availability of library educators but got revived in 1918 (Khurshid, 1992) with the efforts of Mukand Lal and Labhu Ram. They both contributed a lot in the continuity and expansion of this certificate program (Qarshi, 1992). After the partition of the subcontinent in 1947, this course again remained suspended for three years due to political turmoil and was revived in 1950 (Qarshi, 1992). Initially, the certificate courses of a varied duration (i.e. 3-6 months), with part time faculty usually, librarians were conducted from 1948 to 1965 by various universities and organizations. These certificate courses were gradually converted into one year diploma and later on in master's program. The names of the departments were changed to Library and Information Science (LIS) during the 1990s.

In 1992, Rehman (1992) presented an account of the key characteristics of LIS faculty members from six departments of that time and identified a number of issues related to LIS

academics such as shortage of faculty in all the departments, a very low proportion of PhD faculty and scarcity of research skills and productivity. He noted that a very few teachers were producing problem-oriented research publications based on surveys. Ameen (1992) also painted a gloomy picture regarding the academic and professional competencies of the faculty members and considered it as an area of serious concern. Majid (1992) also indicated the weak credentials of faculty in terms of educational background, experience and modern teaching techniques. Anwar (1992) also stressed that breed of LIS faculty members should be highly selected one with regard to intellectual attainments, personal abilities and professional contributions. He also identified that teaching, scholarship; statesmanship and service to the community were the major roles of LIS academics. Since then, a lot of changes have taken place in terms of social, technological and professional context. Moreover, the last decade has witnessed a growth in the number of departments and programs levels in Pakistan. Along with the growth of departments and programs number, LIS education in Pakistan is also undergoing a transitional phase trying to embrace the expanded intellectual jurisdictions of the discipline (Malik & Ameen, 2020 a, b, c). This is evident from the change in nomenclature of LIS departments, name of degree and curriculum contents as department at PU and University of Sargodha have changed their departments and degree name to 'Information Management' in 2014 and 2020 respectively (Warraich, Malik & Ameen, 2016). During such paradigm shift, this is direly needed to chalk out the competencies among LIS academics required to bring real change ensuring the survival of LIS academic programs.

Presently, 53 faculty members are available in nine LIS departments. These departments are well established and offer programs from BS to PhD level. A recent study by Malik and Ameen (in press) presented a detailed description of LIS academics in terms of budgeted positions for faculty members in different cadres, number of actual incumbents, gender wise distribution and academic qualification. The study also reported the issue of faulty shortage in terms of number and competencies. Moreover, a gap in literature was also noted particularly in Pakistani context where the researcher hardly found any study conducted on the needed skills of the faculty. So, this study is an attempt to identify the competencies which are considered essential among faculty members for imparting quality education to their graduates.

Research Design

The present study employed a qualitative approach to collect views, experiences and insights of library and information faculty regarding their needed competencies in changing times. Seventeen interviews were conducted from the faculty members of eight LIS departments. The interview technique was used as data collection tool due to its suitability for collecting indepth data. In order to pick 'information-rich cases' for the study, participants were selected using purposive sampling technique. After a careful consideration, faculty members from the pool of professors, associate professors and assistant professors were selected for the interviews. Considering the number strength of faculty members from the above mentioned pools, three respondents from the University of Peshawar, while five from the University of the Punjab were interviewed. At least two respondents were included from each three departments at University of Karachi, Baluchistan and Islamia University of Bahawalpur. However, one faculty member from each remaining three departments (Allama Iqbal Open, University, University of Sargodha, Sarhad University of Sciences and Information Technology) was contacted as they have only one post filled in the above-mentioned cadres. The researcher was unable to access the faculty members of one department as they never gave time in spite of various requests. Initially, faculty members were contacted through telephone to get their consent and to fix time for interview. On having acceptance and a fixed time, a formal letter explaining the purpose of the study and requesting participation was sent via e-mail to those who agreed to participate in the study. The participants were provided with a choice to speak in English or Urdu or bilingual (both English and Urdu) to avoid language barrier in getting their real insight. Interviews were recorded and transcribed carefully by listening audios again and again. As most of the participants talked bilingually, hence the researcher did not face any difficulty in English translation. Nevertheless, the process was carefully done. Data were analyzed using thematic analysis approach. After reading interview guide and each interview transcript several times a list of codes or code sheet was developed. The codes developed from interview guide and the first couple of interviews worked as base for the remaining interview transcripts. The additional codes which emerged inductively from the data were also added as needed.

Demographic profile of the interviewees revealed that four female and thirteen male faculty members participated in the study. Among them, two were professors, six associate professors while the remaining were assistant professors. A study by Malik (2019) reported that among available 53 faculty members, 39 (74%) are male while 14 (16%) are female educators. At the time of data collection in 2017, there were only three professors and 6 associate professors in all the nine LIS departments of the country. A major chunk of the LIS faculty members was assistant professors and lecturers (Malik & Ameen, 2020). A diversity and maturity with regards to participants' age and experience was also ensured as four faculty members fall in the age range of 30-40 while seven from 41-50 and six from 51 and above. With regard to experience, the faculty members have teaching experience within the range of three to 30 years.

Findings

Needed Competencies for Faculty

The interviewees were invited to provide their opinion on the needed competencies for faculty to survive in the future. They came up with a long list of skills which have been grouped into five broader categories shown in Figure 1.



Figure 1. Needed competencies for faculty

Subject Knowledge and Skills

This category was described as 'important' by all the interview respondents. They believed that faculty members should be competent enough in the core areas of the discipline. These areas included information acquisition, organization, storage, retrieval and user need analysis. Considering the nature of the discipline they put great emphasis on the grip and command of the subject matter in both theoretical and practical aspects.

"There is no other opinion that a LIS faculty member should be an expert of LIS core subjects" (R12). Another participant added the core subject area by stating, "Cataloging, classification, indexing, and abstracting, collection development and management, and information literacy are the traditional core courses" (R17). The following statement elaborates the importance of practical expertise as well, "A LIS educator should have command and grip over the theoretical and practical aspect of the subject" (R14).

The respondents also stressed on adopting new trends in these traditional areas especially those involved technological modalities and developments; particularly the application of ICTs in the information processing and storage. Simply put, a combination of knowledge and practical skills of traditional core areas with modern developments would be required for competent LIS educators. It is evident form the following statement, "We as faculty members should have competencies regarding traditional librarianship aspects such as cataloging, classification, collection management, reference service and modern concepts like metadata, taxonomy and managing online access" (R12). Another noted, "Our tool has shifted from manual to digital like EDDC, OPAC, MARC, and LIS core concepts have been evolving and expanding like Functional Requirements for Bibliographic Records (FRBR), resource description and access (RDA) and digital reference service services (DRS)" (R1). However, it was expressed that knowledge and skills merely in traditional subject areas were not sufficient for changing landscape of the profession. Information management systems, e- information processing, knowledge management, digital libraries and web programming were also considered as core areas and faculty members were thought to develop competencies in these areas as well.

"We should excel in traditional concepts and theories as well as in the areas of information management systems, computerization and digital libraries" (R16).

It is evident from the above mentioned views that knowledge and expertise only in traditional subjects were not considered enough for LIS educators in the changing times. The participants suggested that LIS educators should seek a blend of competencies in traditional and modern concepts for future.

IT Knowledge and Skills

The impact of information technologies on the profession is tremendously changing the academic contents of the programs. Now more focus is on the processing and managing information sources and services in digital format. This has implications on academics' learning

with IT knowledge and skills as well. IT skills were considered pertinent for teaching and delivering IT related course contents. They claimed that in case of IT related course contents; academics were mostly relying only on theory and were unable to impart the practical aspects. "They lacked their practical IT skills" (R3). During interviews, the respondents (n=5) admitted that they were less technological oriented and lacked skills while at the same time, considering IT knowledge and skills vital to be a good LIS educator.

Instructional Skills

'How to teach' were the much talked about skills after IT knowledge and competencies. Experiential learning in the "real world" by involving "hands on practice" was emphasized considering the practical nature of the profession. "An educator will be able to explain the contents in both academic and real world context" (R12). They talked about the effective side of teaching in terms of connecting, caring and knowing their students. "Engaging the students in the learning process is the art and we as LIS academics should master this" (R6). Creating an environment conducive for learning and sharing new ideas in the class was advocated. It was obvious from the discussion of the participants that mostly in LIS departments, typical, traditional chalk and talk teaching method was more prevalent and faculty members were less familiar or comfortable with electronic course delivery applications and resources. They were of the opinion that academics should use modern instructional skills by employing different styles and methods to engage students in the learning process. Some participants also shared their own personal teaching style, "I always organize and convey major points of a topic at a level appropriate to students" (R3).

"I usually solicit question, summarize main points to reinforce learning" (R12).

"I try to engage the students with task based activities and avoid domination" (R6).

The experience of using computer, internet and other technologies for preparing, teaching and delivering contents effectively was shared. "I use PPTs for delivering lecture and enhance its impact with effective audio-visual aids and handouts" (R2). Formal and informal evaluation methods were mentioned to make improvement in their course contents and teaching style.

"I usually ask students about their feedback regarding course contents and my teaching style in the last class of the semester. They never disappoint me. They always provide me valuable feedback and innovative ideas for contents and their delivery" (R8).

Almost all faculty members were well aware of the benefits of employing technological

devices and applications in preparing and delivering the curriculum contents. However, it is interesting only a few spoke about active learning and the integration of video conferencing, educational software, (such as MOOC, Blackboard) and social networking sites (Facebook) in teaching and delivering contents. This may indicate their own familiarity and knowledge level of information technologies.

Research Skills

Respondents shared that research expertise was needed for professional and personal growth of LIS faculty and to run research programs established in the departments as well. It was pertinent for LIS academics to have mastery on research skills to be able to publish quality research for their growth and visibility. They further explained that faculty was responsible for preparing the future professionals having research skills. If they themselves lack research skills how would they be able to supervise the students? "It (research skills) will enhance their analytical and critical skills and give them enough confidence and experience to supervise research students" (R9).

Generic Skills

Whilst talking about generic skills LIS faculty members stressed more on management, leadership, and communication skills (Figure 2). They spoke about these with more detail, considering that faculty should demonstrate a high level of generic skills to be a role model for students.

Communications skills: Almost all the respondents put great emphasis on communication and presentation skills. The art of communication involves listening, speaking, reading, writing and non-verbal communication. Academics were expected to be highly skilled in all these areas. An interviewee stated, "Communication skills are important for many professions but are crucial for academics" (R5).

A participant considered instruction as fifty percent based on 'knowledge' and fifty percent on 'communication skills'. Communication skills for academics were thus, regarded as important as their knowledge of the particular subject. Another respondent considered the academics' role as one of helping the students to learn at a deeper level, to understand new ideas and concepts so well that they can apply them in a work situation. He further added, "Academics will do a better job if they communicate well with their students" (R14).





Time and stress management: Many participants believed that academics should have management skills. Managing the classroom environment effectively was considered one of the most important jobs. Managerial skills were considered helpful in creating a successful, conducive learning environment with a positive impact on students to achieve learning requirements and goals. Furthermore, most of the interviewees were working in semester system which required much more time and stress management. Teaching assignments, publishing research and administrative responsibilities would add into the work. Hence, managerial skills were required to develop a balance in teaching, research and other activities.

Self-Learning and development: The majority of the interviewees thought that self-learning and self-development was more important for academics. Self-learning was considered crucial for personal and professional growth. "They [faculty] should ------ try to learn new things. Due to Internet, access to information is not an issue now. We can access, read and discuss online. Only stagnation is a dangerous thing" (R7). Another considered the learning as a lifelong process and commented, "We have to polish our skills. It is a lifelong learning process and should be continued. Gap in acquiring knowledge is deterioration. We should spend time, energy and money to excel" (R5). The faculty was expected to have broad exposure of general knowledge as well.

Leadership skills: Many interview participants believed that an academic should be a visionary leader. Leadership skills were regarded essential for building and boosting confidence among the students. They explained that the educator devised the future of a discipline. As a leader, they were supposed to encourage their students to think out of the box, to take risks and to explore new dimensions.

A few participants believed that social skills such as empathy, cooperation and caring behavior with the students and colleagues; commitment and honesty with the profession and selfconfidence were the much needed characteristics to be a good faculty member.

Discussion

The interview findings put forward various competencies needed for library and information educators including (i) subject knowledge and skills, (ii) IT knowledge and skills, (iii) teaching skills, (iv) research skills and (v) managerial, leadership and social skills. A review of IFLA guidelines (2012) and ALA standards (2008) for accreditation of master's programs in LIS also indicates the similar range of competencies for LIS educators. The findings of the present study indicate that LIS academics should be a potpourri of professional, technological as well as generic skills. The impact of information technology on society generally and on the profession particularly is obvious. The proliferated use of information communication technology within classroom learning and libraries has led to a demand in the associated skills among LIS academics. The importance of these skill set can be realized in developing and delivering all course contents of LIS programs. Many core subject knowledge and skills suggested by LIS academics of the present study are being driven by the e-information environment. Inclusion of technological modalities into traditional core courses as well as web programming, software development, application of information systems and development of customized information system is a testament of the ICTs' influence on LIS programs curriculum. Okello-Obura and Kigongo-Bukenya (2011) declared the modern technologies as life blood of LIS business and competitive edge in the job market and called for its fortified integration into curricula of the academic programs in Uganda. So, it is very pertinent for LIS educators to be capable of successfully adapting and implementing technological concepts and applications into curriculum contents and delivery.

After subject knowledge and skills, the importance of instructional skills is very much obvious. Engagement of students is one of the essential instructional skills. In order to maintain

interest in and mastery of a subject or concept, students need opportunities and environments that support reflection, practice, constructive feedback, and collaboration. Instead of employing mere lecture method, more vibrant and interactive methods were stressed while using electronic delivery applications and resources to produce environment conducive for learning. It is believed that the use of technology especially in our discipline carried educational and professional benefits both for the educators and the students.

As far as research competencies are concerned, prior literature, mostly about the LIS professionals (i.e. practitioners & academics) is reporting an upward trend in the research output which is being associated with the commencement of research programs in the country (Sheikh, Malik & Mahmood, 2020; Ameen & Warraich, 2014). Malik and Ameen (in press) reported that amongst available 53 faculty members, 33 (60%) had already earned a doctoral degree while nine out of remaining 20 were also pursuing it. Recent studies on the topic reported that LIS academics have been producing more research- almost double compared to the previous fifty eight years (Siddique, Rehman, Khan & Altaf, 2020). Despite this progress, research skills are still required ones. A future study can be conducted to explore this phenomenon in more detail while listing the areas related to research skill set.

Managerial and communication skills, and personal growth were the most mentioned ones and designated as "very much needed" skills for LIS academics. Focus on time and task management, leadership skills, and self-learning skills clearly makes sense as academics work with diverse groups including students, peers, colleagues and practitioners within and outside of their departments. The diversity of their work assignments (i.e. teaching, research, consultancy, administration) also denotes the need of these generic skills. The role does require extensive managerial and leadership skills. This indicates an increased tendency to consider LIS academics as integrated package of subject, instructional, managerial and interpersonal skills.

Conclusion

The study findings help to understand the nature of needed competencies for LIS academics in Pakistan. The competencies provided here are considered important not only for educators but also for the quality of LIS academic programs as well. Being educators, we should ensure that these competencies are part of our personalities as well as the curriculum content of the courses offered by LIS departments. LIS education in the country has been going through a transitional phase and the findings of the study provide a broader picture of the required skill set

among educators to set the future direction. LIS academics with such skill set can lead the transition to happen in true letter and spirit. Though conducted in Pakistani perspective, the study findings may have implications for other countries with similar context.

References

- Ameen, K. (1992). Education and training of university librarians in Pakistan. In S. Rehman, A.
 S. Chaudhry & A. H. Qarshi (Eds.), *Library education in Pakistan: Past, present and future* (pp. 61-66). Lahore: PULSAA
- Ameen, K., & Warraich, N. F. (2014). Trends in LIS Education and Research in Pakistan. In A.
 Koronios, Q. Zhu, & J. Du (Eds.). *Library and Information Science Research in Asia- Oceania: Theory and Practice: Theory and Practice* (pp.187-199). USA: IGI Global.
- American Library Association. (2015). Standards for Accreditation of Master's Programs in Library and Information Studies. Retrieved February 18, 2021, from http://www.ala.org/accreditedprograms/sites/ala.org.accreditedprograms/files/content/sta ndards/Standards_2015_adopted_02-02-15.pdf
- Anwar, M.A. (1990). Asa Don Dickinson: The founding father of modern librarianship in British India. *Punjab Library Primer*. Lahore: Asia Book Center.
- Anwar, M.A. (1992). State of the library profession in Pakistan: From celebration to reality In S.
 Rehman, A. S. Chaudhry & A. H. Qarshi (Eds.), *Library education in Pakistan: Past, present and future* (pp. 51-60). Lahore: PULSAA
- Ameen, K., & Warraich, N. F. (2014). Trends in LIS Education and Research in Pakistan. In A.
 Koronios, Q. Zhu, & J. Du (Eds.). *Library and Information Science Research in Asia- Oceania: Theory and Practice: Theory and Practice* (pp.187-199). USA: IGI Global.
- Bakar, A. B. A. (2005). IT competencies in academic libraries: the Malaysian experience. *Library Review*, *54*(4), 267-277.
- International Federation of Library Associations and Institutes (IFLA). (2012). *Guidelines for Professional Library/Information Educational Programs, 2012.* Retrieved 22 May, 2020 from https://www.ifla.org/files/assets/set/publications/guidelines/guidelines-forprofessional-library-information-educational-programs.pdf
- Kaser, D. (1992). Asa Don Dickinson: A librarian of his times. In S. Rehman, A. S. Chaudhry &A. H. Qarshi (Eds.), *Library education in Pakistan: Past, present and future* (pp. 3-10).Lahore: PULSAA

- Khurshid, A. (1992). Library education in Pakistan: concerns, issues and practices In S. Rehman,A. S. Chaudhry & A. H. Qarshi (Eds.), *Library education in Pakistan: Past, present and future* (pp. 11-30). Lahore: PULSAA
- Lang, R. P. (1968). Asa Don Dickinson. Journal of Pakistan Library Association, 2(2), 73-76.
- Malik, A., & Ameen, K. (in press). *Appraising the current status, issues and challenges of library and information faculty members in the universities of Pakistan.*
- Malik, A., & Ameen, K. (2020a). Quality Assurance and LIS Programs in Pakistan: Practices and Prospects. *portal: Libraries and the Academy*, 20(2), 237-254.
- Malik, A., & Ameen, K. (2020b). The employment landscape and LIS education in Pakistan: challenges and prospects. *Global Knowledge, Memory and Communication*. DOI 10.1108/GKMC-11-2019-0146
- Malik, A., and Ameen, K. (2020c). Attracting Prospective Students to Master's Program: A
 Dilemma for Library and Information Science Education. Library Philosophy and
 Parctice. (E-Journal). Retrieved November 12, 2019, from
 https://digitalcommons.unl.edu/libphilprac/4245
- Majid, S. (1992). Preparation of science and technology librarians in library schools of Pakistan.
 In S. Rehman, A. S. Chaudhry & A. H. Qarshi (Eds.), *Library education in Pakistan: Past, present and future* (pp. 107-114). Lahore: PULSAA
- Okello-Obura, C., & Kigongo-Bukenya, I. M. N. (2011). Library and Information Science Education and Training in Uganda: Trends, Challenges, and the Way Forward. *Education Research International*, 2011.doi: 10.1155/2011/705372.
- Partridge, H., Hanisch, J., Hughes, H., Henninger, M., Carroll, M., Combes, B., et al. (2011). *Re-conceptualizing and re-positioning Australian library and information science education for the 21st century*. Sydney, NSW: Australian Learning and Teaching Council.
- Pettigrew, K.E. & Durrance, J.C. (2001). KALIPER: Introduction and Overview of Results. Journal of Education for Library and Information Science, 42 (3), 170-180
- Qarshi, A. H. (1992). Development of curriculum at the University of the Punjab: Dickinson's contributions and afterwards. In Sajjad ur Rehman, Abdus Sattar Chaudhry & Afzal Haq Qarshi (Eds.), *Library education in Pakistan: Past, present and future* (pp. 77-94). Lahore: PULSAA.

- Rehman, S.(1992). Library and Information Science faculty in universities of Pakistan: An appraisal. In S. Rehman, A. S. Chaudhry & A. H. Qarshi (Eds.), *Library education in Pakistan: Past, present and future* (129-149). Lahore: PULSAA
- Sheikh, A., Malik, A., & Mahmood, K. (2020). Research practices of LIS professionals in Pakistan: A study of attitudes, involvement and competencies. *Journal of Information Science*, 0165551520972033.
- Siddique, N., Rehman, S. U., Khan, M. A., & Altaf, A. research in Pakistan: A bibliometric analysis, 1957–2018. *Information Science*, *1*, 14.
- Warriach, F. N., Malik, A., & Ameen, K.I (2016). In search of new horizons: Agenda of LIS departments in Pakistan. In *M. Seadle, C. M. Chu, U. Stockel, & B. Crumpton, (Eds.), Educating the Profession: 40 years of the IFLA section on education and training* (420-432). Germany: De Gruytger.
- Xue, C., Wu, X., Zhu, L., & Chu, H. (2019). Challenges in LIS education in China and the United States. *Journal of Education for Library and Information Science*, 60(1), 35-61.