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Library Philosophy and Practice 2012

ISSN 1522-0222

LIS Curriculum Review Using Focus Group Interviews of Employers

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Introduction

The employers of library and information science graduates are many and varied in nature. Designing an LIS educational program for diversified needs and expectations of the employers is very difficult. Library schools are always expected to get input from the consumers of their product about their changing expectations and needed skill set of the graduates. IFLA guidelines (2000) and ALA standards (2008) for LIS educational programs also acknowledge the employers' right to know whether a given program is of good standing. They recommend the involvement of employers in planning and evaluation of program goals/objectives and curriculum. They also recommend their participation in governance of the programs.

Department of Library and Information Science at the University of the Punjab, Lahore is the oldest LIS education provider in Pakistan. It initiated a certificate program for librarians in 1915 in the British regime. After independence, this program was converted into a postgraduate diploma. A master program was started in 1974. Since then more than 1500 students got master degrees and are serving various types of libraries, information centers and library schools throughout the country. Lahore is the second largest city of Pakistan having an approximate population of 10 millions. A large number of LIS graduates are working in Lahore. The second largest cluster of the graduates of this department is Islamabad, the country's capital 288 kilometers away from Lahore. Other graduates are mainly working in university and college libraries in cities and towns of all sizes in the Punjab province. The remaining professionals serve some organizations in other provinces and even in abroad particularly the oil rich countries of Middle East.

The Higher Education Commission of Pakistan is responsible for revision and recommendation of a common curriculum. It has set up a National Curriculum Revision Committee for LIS consisting of representatives from all library schools and some working librarians. The last revision made by this committee was published in 2002. This committee is only a recommendatory body and it is up to the individual universities to implement the curriculum as such or further revise it. The Department of LIS at the University of the Punjab immediately implemented

the new curriculum. After some time, the senior professionals, particularly from large university and special libraries, started to insist for further revision and effective implementation of the LIS curriculum. Flaws in LIS education has been a common topic in professional gatherings and seminars. Practitioners were criticizing the quality of education by claiming that library schools were not keeping pace with the technological and environmental developments in libraries. They were feeling difficulties in finding manpower possessing required knowledge, skills and attitude. Even graduates with good grades were lacking in some basic skills. Keeping in view the situation this researcher conducted some surveys to assess educational needs of entry level and experienced manpower (e.g., Mahmood, 2003 and Mahmood & Khan, 2007). Meanwhile, this author got an opportunity to become head of the department. He decided to conduct a thorough review of the MLIS program and design and implement a new curriculum. The review and design process included seeking practitioners' feedback through an LIS listserv, a questionnaire survey of the alumni, a detailed literature search, a review of course contents of LIS schools all over the world available on the World Wide Web, and two focus group interviews of senior librarians considering them the potential employers of the department's graduates. This paper presents an account of the focus groups conducted for this purpose.

Focus Group as a Methodology for Curriculum Review

A cursory review of LIS literature revealed that various methods have been used for seeking employers' opinion regarding skills required of library manpower. These include content analyses of job advertisements (e.g., Younger, 2005), questionnaire surveys (e.g., Kim & Kusack, 2005), and interviews (e.g., Mammo, 2007). Some examples of the use of focus group interviews can also be found in LIS literature. Researchers not only described the use of focus group technique for their purpose but also gave arguments in the favor of this method. Most of the authors found it very effective in qualitative data collection.

Focus groups, developed in the 1940s by market researchers, are now increasingly used for a variety of purposes in many different fields such as sociology, psychology, media studies, education, and healthcare. In academia, this technique is used "when a program of some kind needs to be evaluated in order to help measure its success, strengths, and weaknesses, and also to help qualitatively explain the nature of what is and is not working. For example, new educational programs are frequently evaluated through focus group research in order to understand their benefits and aid in strengthening them. Focus groups are also useful in developing the content of new programs (Hesse-Biber & Leavy, 2006, p. 197)

Throughout its development, the focus group technique has been known variously as the "focused interview," the "group interview," the "group depth interview," the "focus group," and the "focus group interview." Since the 1980s, "focus group(s)," "focus group interview," and "focused group interview(ing)" have been the most frequently used terms found in the literature and for database searching (Walden, 2006)

According to Phillips and Stawarski (2008) focus groups are particularly helpful when qualitative information is needed about a program's success. It is an inexpensive and quick way to determine the strengths and weaknesses of a program. For example, focus groups can be used in the following situations:

- To evaluate reactions to specific exercises, cases, simulations, or other components of a program
- To assess the overall effectiveness of program application
- To assess the impact of a program in a post-program evaluation

According to Walden (2006) focus groups involve open, in-depth discussions with small groups of purposely selected individuals, led by a trained

moderator/facilitator, to explore a predefined topic of shared interest in a non-threatening, semi-structured setting. Such groups are said to be “focused” because the participants are similar in some way, and the goal of the encounter is to obtain data about a single topic or a limited range of topics. Focus groups are basically group interviews, the goals of which are to examine, in detail, people's perceptions about products, services, situations, political candidates, and so forth, in order to evaluate how their thoughts and beliefs shape overt behavior. Focus groups involve an entire group that answers questions together, rather than an interviewer who asks questions of a single individual.

Gorman and Clayton (2005) believed that focus group was the simplest method for qualitative data collection in information settings. They described the advantages of focus group as enjoyable and interesting experience, speed, transparency, interaction, flexibility, open-endedness, and ability to note non-verbal communication.

References to focus groups began appearing in the library literature in the mid-1980s and this technique has been gaining ground in this field at a slow pace. A scan of the LISA, Library Literature and LISTA databases (in April 2008) revealed that there were only 70, 85, and 75 references respectively to focus group. According to Glitz, Hamasu and Sandstrom (2001) US libraries of all types—public, academic and special—use the focus group technique for many purposes, such as evaluating library services, strategic planning, studying users' information-seeking behaviors, developing a mission statement, assessing collection strengths, understanding library staff attitudes, and determining continuing education needs for library staff.

Canning, Edwards and Meadows (1995) described the application of the focus group technique, by the staff of the J. Otto Lottes Health Sciences Library, Missouri University at Columbia, School of Medicine, to the evaluation of library services and the current library user training program. The focus groups were found to be a quick and cost effective method of obtaining relevant information about the value of current services and were also viewed as an easy way to help build and sustain public relations with the School of Medicine.

Oberg and Easton (1995) used focus groups in the evaluation of a program of school library education at the University of Alberta, Canada. They found that the focus group methodology was an effective way to increase the quantity and quality of information needed for program evaluation. “Although the focus group approach did not provide a clear direction for future program changes, it did affirm the current direction of the program and it did widen the scope of the inquiry into the program. It also appears to have an important benefit in terms of building awareness of the current school library education program within the professional community, especially for the many individuals who have limited contact with the university after completing their formal professional education.”

Goulding (1997) argued that focus groups have great potential as the principal data-gathering method for LIS researches. Glitz (1997) introduced the use of focus groups in library research, the skills needed to conduct groups, and their strengths and weaknesses. In his opinion, focus group research can help libraries to:

- identify needs for education and training among both users and staff,
- set financial or program priorities,
- clarify the library's goals and values,
- plan for new or enhanced services,
- identify the needs of particular user groups, and
- evaluate existing services. (p. 387)

Thapisa (1999) opined that an LIS curriculum should be sensitive to market forces, the needs of the employers and also the curriculum should be able to produce job-ready graduates. He quoted an e-mail of Professor Ann Irving of Thames Valley University Centre for Complementary Learning in which she advised that, “to find

out from employers, focus groups are a good and easy technique, and much better than a questionnaire alone,” because “people tend to recall better the kinds of things they want, and to talk more freely about the problems with new recruits to their staff. They also build good collaborative links between academic staff and the people to whom they will be sending educated graduates” (p. 94).

Verny and Van Fleet (2001) reported that the Kent State University School of Library and Information Science conducted three focus groups to identify the need for professional LIS education in the state of Ohio and the role of the program in delivering such education. The authors argued that using a focus group would be a more effective vehicle to investigate complex behaviors and to determine why people do or do not use a service.

Dickson (2004) used focus group in designing an information literacy and communication unit for College of Health students at the University of Notre Dame, Australia. He reported that using focus groups was a particularly effective method for identifying areas for improvement and strategies for meeting customers' needs. Spackman (2007) used focus groups to evaluate an information literacy program in the Harold B. Lee Library at Brigham Young University.

As part of a curriculum review process, four members of the College of Library and Information Science at the University of South Carolina (Curran, Bajjaly, Feehan & O'Neill, 1998) used focus groups to determine what constituent expectations were for new graduates of the program. The aim was to listen to clients – both students and employees – in order to sensibly adjust the program (weeding as well as seeding). The library science faculty in this case found focus groups to be “very useful,” and they intended to continue to use this technique in other situations. They argued for this methodology in the following way.

Focus group methodology is anchored in the premise that an organization can learn from its constituents when it listens to what constituents have to say. Focus groups provide a structured way for people who share similar interests to talk about them and for the organizations which sponsor the groups to review and consider the conversations.... Well-run focus groups can provide excellent intelligence for decision making. They supply a snapshot of current thinking.... In addition, focus groups enfranchise an LIS school's constituents. They enjoy the chance to meet and greet, to eat together, and to be heard. Many of them sincerely appreciate the opportunity to influence curricular decisions. Most of them have very useful opinions to offer. (p. 177)

Kigongo-Bukenya (2003) used focus group discussion to review curriculum strengths and weaknesses in some African LIS schools. “The researcher found the exercise very exhausting and lively, which kept the respondents alert and made them fully participate in the exercise. This gives credibility to the findings... The qualitative approach enabled the researcher to get in personal and close contact with the stakeholders... The close contact enabled the research to appreciate the feelings expressed in the answers and the fears expressed in gestures” (pp. 118-119).

Lutwama & Kigongo-Bukenya (2004) used focus group interviews to seek opinion of employers corresponding to the biggest institutions employing the graduates of the East African School of Library and Information Science in Uganda. The topic of discussion was appropriateness of the curriculum to the professional practice in LIS fields.

The review of literature shows that many researchers have successfully used focus group interview method for qualitative data collection in general and program review in particular.

Procedure of the Study

Keeping in view the market clusters of the graduates of the Department of Library and Information Science, University of the Punjab, it was decided that two focus group interviews of the employers will be conducted, one each at Lahore and Islamabad.

Choosing the Research Team

This author presented the idea of seeking employers' feedback through focus groups to the faculty and students of doctoral class. All appreciated the plan and were ready to cooperate. One Assistant Professor and four students were selected for assistance. Being the head of the department this author became the team leader and decided to play the role of facilitator/moderator. The other faculty member worked as assistant facilitator in both groups. The PhD students, who were also working librarians, helped in recording / note taking and arranging for logistics.

Determining the Population

Members of the research team nominated, discussed and finalized the list of participants. For the purpose of these discussions, the employers were defined as the LIS qualified and experienced persons who were heading the large academic, public and special libraries and information centers and had a profound influence in the LIS field. Most of the participants were graduates of the University of the Punjab. They had been involved in recruiting LIS graduates for their libraries or for other institutions by participating as subject expert in their selection committees. They also had a good knowledge of the teaching activities of the DLIS at University of the Punjab. Most of them were the members of the Board of Studies or had worked as external paper setters and examiners of the MLIS program. They also had been active participants of the alumni association of the department and other professional associations.

Deciding the Questions for Discussion

Based on the experience to run the MLIS program, previous informal discussions with alumni and practitioners, and review of literature the research team selected the following questions to ask the participants.

1. What competencies are required of LIS graduates in the changing LIS market in Pakistan?
2. What changes are required in the objectives of MLIS program?
3. What should be the entry requirements for MLIS program?
4. What should be the structure of the program and sequence of courses?
5. What changes are required in the course contents?
6. What should be the curriculum implementation strategies?
7. What physical facilities are needed to implement the curriculum?
8. What other measures do you suggest to improve the quality of education at DLIS?

Operating the Focus Groups

Existing course contents and reading lists were sent to the participants two weeks before the focus group meetings. A list of questions for discussion was also sent along with the invitation letter. The first focus group discussion was organized at the department which was attended by four chief librarians, two each from large university and public libraries of Lahore. For the second group interview the research team traveled to Islamabad. It was organized at the National Library of Pakistan. Eleven participants from national, university, college, special libraries and

a library school were present (Table 1). Tea and lunch were arranged for both the meetings. The meetings lasted for 90 and 120 minutes respectively.

Before inviting the participants to start discussion on the questions the moderator briefed the participants on the history, activities, achievements and future plans of the department and existing contents and curriculum implementation strategies of MLIS program.

Both focus group interviews were conducted in a free and open atmosphere to enable a detailed discussion of various aspects of the curriculum and its implementation strategy. Each respondent actively participated and contributed something on most of the issues. Although some of the participants were different with each other on a few issues but they agreed upon on most of the recommendations.

Table 1. Focus group participant demographics

	Lahore	Islamabad
Type		
Employer	4	11
University Librarian	2	4
College Librarian		1
Public Librarian	2	
National Librarian		1
Special Librarian		4
Library School Head		1
Moderator & Faculty	4	2
PhD Student	2	2
Gender		
Male	7	12
Female	3	3
Number of Participants	10	15

Analysis of Responses

Needed Competencies of LIS Graduates in the Changing LIS Market in Pakistan

The participants were of the view that due to very rapid changes in the library technology there was a gap between the library practice and the contents of LIS curricula in the country. Information and communication technology has witnessed a revolutionary change in previous years while LIS schools could not respond to it very quickly. The modern technological developments changed everything in a library. One can see new software, hardware, content, services, and even user attitude in libraries. The new versions of operating systems have made unusable the two to three year old hardware and software. In this new environment, librarians are expected to be more active to fulfill the needs of their clients.

The respondents affirmed that the graduates of the University of the Punjab, though better in all LIS schools in Pakistan, lacked many required skills. Various professional positions were vacant due to unavailability of skilled staff. Competencies required of an LIS graduate can be divided into three categories: LIS core, management and ICTs. All three areas should be given a balanced importance in the curriculum. In addition to the deficient ICT skills the graduates terribly lacked oral and written communication skills. Sometimes, the graduates were not able to introduce themselves in English during interview. Similarly, they could not write a simple letter in English. Although this is due to the deterioration in the general education system in the country but an LIS professional, living in a global village of knowledge, cannot deliver services without a good English proficiency.

Objectives of MLIS Program

The participants gave guidelines to set objectives of a revised MLIS program. Their suggestions are as follows:

- MLIS program should prepare students as proactive leaders instead of traditional librarians
- LIS graduates should have good ICT and management skills.
- LIS graduates should also be good in general knowledge. They should have general reading habits. They should be aware of the social, economic, political and technological changes which take place around them.
- LIS program should be a blend of theory and practice. Both should be given equal importance.
- Research skills should also be given importance.
- Different specializations should be offered for different organizations.

Entry Requirements

The employers were of the view that the intake of LIS program was poor. LIS subject is not the first choice of the candidates. The students with good merit always go to medical, engineering and business studies. Usually students from lower middle class and mostly with rural background get admission in LIS programs. Similarly science students do not join library schools. The students of LIS do not have an aptitude to become an effective library professional. The participants recommended that there should be admission test and interview to check the aptitude of the candidates towards librarianship. There should be fixed quota for students with science background.

Program Structure/Course Sequence

The senior professionals recommended the following:

- Increase credit hours of the MLIS program.
- It should be a full time four-semester program.

There is a need to set new priorities for core and elective courses.

- Indexing and abstracting, digital libraries and information literacy/ user education should be introduced as core subjects.
- First semester should be devoted to personality development, communication skills, introductory ICTs and other LIS fundamental courses.
- During first semester, orientation tours to major libraries of the city should be arranged.
- Course on research methodology should also be in first semester to train students write assignments, projects, etc.
- Third semester should carry specialization courses.
- Courses for independent study should be offered.
- The final semester should be fully allocated to practicum.
- Writing research thesis should be made compulsory for each student, if possible to manage.

Course Contents

The groups named many components to be included in the courses:

- EndNote software
- Winisis/Genisis software
- Bibliographical control
- E-subscription & licensing issues
- Critical thinking
- Marketing and public relations
- Commercial and open source library software packages
- Global trends in library services
- Project planning
- Written and oral communication skills
- Library software application development (project)
- Digital librarianship
- Knowledge management
- Electronic collection development
- Strategic planning and situation analysis
- Performance evaluation (HRM)
- Media librarianship
- Annotated bibliographies
- Digitization
- Database management
- Information literacy programs
- Bibliometrics / Webometrics
- Content analysis
- Dublin core
- Digital archiving
- Thesaurus building
- Library stock taking / stock revision
- Use of different style manuals

Some were of the view that new courses be designed keeping in view the local needs and information resources.

Curriculum Implementation Strategies

The participants opined that the existing curriculum was not much defective but the real problem lied in the implementation. They gave many suggestions in this area:

- Try to develop reading habits in the students. Reading of original texts and reference material should be promoted. Mere reading of notes prepared by

- teachers or students should be discouraged.
- Power Point and verbal class presentations should be encouraged.
 - Teaching should be divided into three parts: 40% class lectures, 40% practical, and 20% assignments/presentations.
 - Quizzes should also be a part of student evaluation.
 - Arrange guest lectures and call the professional librarians from all type of libraries.
 - Involve the students in research activities and publish the output as collaborative effort.
 - Faculty should be of high quality. Do not rely only on teachers with library science qualification. Appoint the ICT and management / administration experts for teaching courses relevant to them. Arrangements should also be made for training faculty in preparing new course contents.
 - Medium of class instruction and examination at the master's level should be English.
 - Give the students case studies of different library management problems (as a term paper or assignment) and ask to present the findings of the study in class. Also call the relevant library professional on the day of presentation. This effort will be fruitful for libraries as well. Also give assignments on users' information needs assessment.
 - Give incentives / scholarships to good students.
 - Practicum is a week area of the program. Its duration be enhanced, covering all professional areas – one month at each desk. Each area of activity should hold separate marks. Well reputed organizations should be selected for this purpose. Students' aptitude should also be considered in library selection. Teachers should visit the libraries during practicum. Both internal and external examiners should jointly evaluate the students.
 - Summer camps can also be arranged for general nature skills like personality development and communication.

Physical Facilities

The groups also suggested equipments and other physical facilities for effective implementation of revised curriculum:

- Departmental library should be a model library for LIS students. It should have latest readings related to courses and reference material. Print and online LIS journals should be available in the library. Help of the department's alumni abroad can be sought for the provision of latest reading material.
- Upgrade the departmental computer lab with latest computers and Internet facility.
- Arrangements for videoconference should be made in the department.
- The department can plan joint ventures with other organizations for the provision of resources to LIS students as well as working professionals. Students should be encouraged to use reference materials and computer labs of large public libraries. Pakistan Library Association's Computer Laboratory at Lahore can also be used for this purpose.
- The grant programs of the Higher Education Commission (HEC) can be explored for the provision of necessary equipment.

Other Suggestions to Improve the Quality of Education

The focus groups recommended some other measures to improve the quality of education at the DLIS and make the image of the department better.

- The MLIS program and other programs of the department should be marketed at a large scale. Seminars and conferences can be arranged for this purpose. Also introduce the profession and its activities to the public

through media.

- Arrange the career counseling workshops for new graduates.
- The HEC should be asked to design the job qualification tests for candidates (as in India, clearance of the University Grants Commission's test gives incentives to the employees).
- Increase the interaction between faculty and professional librarians for mutual understanding.
- Give the feedback of such meetings to the students.
- There should be teachers' evaluation through multiple methods, e.g., by students, peers, alumni, etc.
- Web OPAC of the departmental library be launched.
- MLIS curriculum needs to be revised after every two to three years.
- Curriculum Revision Committee (CRC) of the HEC should be activated to make a uniform curriculum throughout the country.
- The Pakistan Library Association should be asked to set standards for LIS education in the country. The association can also start accreditation practice like ALA.
- The alumni association should be activated to promote the educational programs of the department.

Conclusion

The findings regarding needed competencies correspond to those of a previous survey of academic librarians of Pakistan (Mahmood, 2003) in which ICT, leadership and communication skills were at top of the list. In the light of the findings of these focus group interviews and some other measures a completely new curriculum was designed which was successfully passed through a long journey for its approval (Departmental faculty – Board of Studies in LIS – Board of Faculty of Economics & Management Sciences – Academic Council) and now has been implemented. On the request of the department the Higher Education Commission has also provided some amount to purchase ICT equipment and reference tools.

The author and his research team found the focus group interviews very successful in seeking employers' perceptions and suggestions on the MLIS curriculum. The additional benefits of this activity include the learning of the faculty members and doctoral students on one hand and the marketing of the department's programs on the other. All the research team made arrangements very enthusiastically. The senior employers told that this kind of activity conducted by a library school was the first in Pakistan. All of the participants appreciated and enjoyed this activity. By finding opportunity to contribute for the betterment of LIS educational program they felt very happy. They also rendered their future cooperation for the programs of the department. As a result of this activity they also promised to contribute research papers for the department's research journal. The co-host of the Islamabad meeting, a representative of the National Library of Pakistan, expressed his views that it was a matter of pride for the National Library that it hosted such activity for the improvement of the quality of education in Pakistan. All of the focus group participants found this activity as a very effective method of sharing objections and opinions on a particular topic in an organized way and a short span of time. They recommended that similar focus groups should also be conducted by other library schools. The same methodology can also be used to resolve other issue for promotion and betterment of the LIS profession in Pakistan.

References

American Library Association (ALA). (2008). *Standards for accreditation of master's programs in library & information studies*. Retrieved May 16, 2008 from, http://www.ala.org/ala/accreditation/accredstandards/standards_2008.pdf

Canning, C. S., Edwards, A. J., & Meadows, S. E. (1995). Using focus groups to evaluate library services in a problem-based learning curriculum. *Medical Reference Services Quarterly*, 14 (3), 75-81.

Curran, C., Bajjaly, S., Feehan, P., & O'Neill, A. L. (1998). Using focus groups to gather information for LIS curriculum review. *Journal of Education for Library and Information Science*, 39 (3), 175-82.

Dickson, V. (2004). Collaboration plus! The development of an information literacy and communication program. *Australian Library Journal*, 53 (2), 153-160.

Glitz, B. (1997). The focus group technique in library research: An introduction. *Bulletin of the Medical Library Association*, 85 (4), 385-390.

Glitz, B., Hamasu, C., & Sandstrom, H. (2001). The focus group: A tool for programme planning, assessment and decision-making-an American view. *Health Information and Libraries Journal*, 18 (1), 30-37.

Gorman, G. E., & Clayton, P. (2005). *Qualitative research for the information professional: A practical handbook*. London: Facet.

Goulding, A. (1997). Joking, being aggressive and shutting people up: The use of focus groups in LIS research. *Education for Information*, 15 (4), 331-342.

Hesse-Biber, S. N., & Leavy, P. (2006). *The practice of qualitative research*. Thousand Oaks: Sage.

International Federation of Library Associations and Institutions (IFLA). (2000). *Guidelines for professional library/information educational programs*. Retrieved May 16, 2008 from, <http://www.ifla.org/VII/s23/bulletin/guidelines.htm>

Kigongo-Bukenya, I. M. N. (2003). Towards a viable curriculum: A comparative study of curricula at the East African School of Library and Information Science and the departments of Library and Information Studies of the Universities of Wales, Botswana, and Capetown. *Education for Information*, 21 (2/3), 113-148.

Kim, H. J., & Kusack, J. M. (2005). Distance education and the new MLS: The employer's perspective. *Journal of Education for Library and Information Science*, 46, 36-52.

Lutwama, E., & Kigongo-Bukenya, I. M. N. (2004). A tracer study of the East African School of Library and Information Science graduates 1995-1999 working in Uganda. *South African Journal of Libraries and Information Science*, 70 (2), 99-109.

Mahmood, K. (2003). A comparison between needed competencies of academic librarians and LIS curricula in Pakistan. *The Electronic Library*, 21 (2), 99-109.

Mahmood, K., & Khan, M. A. (2007). ICT training for LIS professionals in Pakistan: A needs assessment. *Program: Electronic Library and Information Systems*, 41 (4), 418-427.

Mammo, W. (2007). Demise, renaissance or existence of LIS education in Ethiopia: Curriculum, employers' expectations and professionals' dreams. *International Information and Library Review*, 39 (2), 145-157.

Oberg, D., & Easton, E. (1995). Focus group interviews: A tool for program evaluation in school library education. *Education for Information*, 13 (2), 117-129.

Phillips, P. P., & Stawarski, C. A. (2008). *Data collection: Planning for and collecting all types of data*. San Francisco: Pfeiffer.

Spackman, E. (2006). Utilizing focus groups to evaluate an information literacy program in a general biology course. *Science and Technology Libraries*, 27 (3), 3-

28.

Thapisa, A. (1999). Developing lasting competencies for a twenty-first century information economy workforce in Africa. *Library Management*, 20 (2), 90-99.

Verny, R., & Van Fleet, C. J. (2001). Conducting focus groups. In D. P. Wallace & C. Van Fleet (Eds.), *Library evaluation: A casebook and can-do guide* (pp. 41-51). Englewood, CO: Libraries Unlimited.

Walden, G. R. (2006). Focus group interviewing in the library literature: A selective annotated bibliography 1996-2005. *Reference Services Review*, 34 (2), 222-241.

Younger, P. (2005). An analysis of skills and qualities required by LIS employers 2004-2005. *Library & Information Research*, 29 (92), 32-51.

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