

Perceptions of Information Technology Innovation and It Training In University Libraries: A Study

Paper Submission:15/07/2021, Date of Acceptance: 25/07/2021, Date of Publication:26/07/2021

Technological change, in the form of the development of the Internet and electronic resources, is changing the practice of library work. The development of electronic resources has changed the volume, nature, and quality of the information sources available. The population of the study consisted of the library professionals of Panjab University Chandigarh. The data collection tools were a questionnaire and an interview method. Out of 40 questionnaires 30 (75%) were received and 30 (75%) were usable. A study population of 30 library professional staffs of Panjab University Chandigarh was surveyed by a questionnaire to establish in what ways library professionals were using IT, what were the level of IT knowledge and skills amongst the library professionals, and what their IT training needs were. Interpretation of the results revealed that all respondents either strongly agreed or agreed on the use of IT in university library. This study indicates the seventeen factors, which shows the perceptions concerning the use of information Technology (IT) by the respondents. All respondents either strongly agreed or strongly disagreed but some times they are either agreed or disagreed otherwise they are neutral

Keywords: Information Technology (IT), Professional Development, Information Technology Training and Perception Concerning IT Training.

Introduction

Technological change, in the form of the development of the Internet and electronic resources, is changing the practice of library work. The development of electronic resources has changed the volume, nature, and quality of the information sources available. Where librarians once relied solely on print resources, they can now answer the majority of questions accurately using only Web-based sources, knowledge and skills up-to-date. The information retrieved by a researcher from the Internet depends on the adequacy of the search engines and databases used, and on the user's skills in using those (Griffiths, 1999).

Libraries are adopting a competency approach to manage their human resources. Competencies are the knowledge, skills, and personal traits that enable the professional librarian to function effectively in the tasks considered essential in the profession. Identifying competencies emphasizes the requisite qualifications in terms of a combination of knowledge, skills, and experience for successful performance of the job rather than the means by which the qualifications were obtained.

Professional development activities can be characterized as formal or informal types of activities. Formal activities include courses and workshops offered in-house, by educational institutions, or by professional associations.

Informal activities include attending conferences, discussions with colleagues, participating in e-mail discussion lists, reading the professional literature, and pursuing self-directed projects. Formal professional development activities are organized, structured programs that explicitly aim to foster understanding, knowledge, and skills. Workshops offered by educational institutions are an example of formal activities. Informal activities also involve the pursuit of understanding, knowledge, and skills, but outside the curricula of educational or academic institutions and professional associations. Informal learning occurs opportunistically and without strict timetables. Conference attendance is considered an informal activity because of the myriad opportunities to network and interact socially and professionally with a wide range of peers and colleagues.

There is more than one means for university libraries to develop their professionals and achieve their missions and objectives. However, one extremely powerful means to successfully achieve the library mission and objectives is the training and development of staff. As long as the employee is learning applicable



Amar Nath
Librarian,
Dept. of Library Science,
Post Graduate Govt.
College,
Chandigarh,India

and directly usable skills on the job through training, and as long as he or she is permitted to use such new skills, investment in training must receive high consideration. Efforts to make the training successful must be made. In the case of Indian university libraries, training is considered to be one of the important issues in developing the knowledge and skills of library staff on using these technologies.

Background of the Problem

Now-a-days, all Western Libraries are computerized; journals and magazines are available only in digital media. Indian university libraries are now in a position to upgrade the infrastructure facilities to suit the Western pattern. In the process of evolution, the university libraries in India have thrown up various problems, which call for analysis, examination and solution. On the one hand, there is knowledge explosion and heavy inflow of information; on the other there is heavy demand for pin-pointed information without loss of time. Libraries are not operating in isolation now, but are becoming partner of various networks for mutual benefit. The status of the university libraries in India seems of being given priority by the bigwigs without any fore thought for harnessing the richness of the information world.

The success and failure of an organization depends upon three factors, viz., the processes being followed, human resources and the way latest technology is being used to achieve its goals. This function is centered on individual roles of the library staff, teams, inter-teams, technologies, infrastructure, organizational goals, processes and total organization of the library.

The technological impact on library and information centers is accentuating radical changes in library collection, techniques, services and products, etc. The use of better technology in accessing, retrieval and dissemination of information is today's demand. In the changing circumstances, it is necessary to have efficient and highly skilled professionals who are proficient in handling electronic equipment for proper dissemination of information. In order to cope up with the present day challenges of information influx, libraries have to re-examine the strength and weaknesses of their organization and re-design themselves according to their user's needs and expectations.

The results of this study could help library and information science professionals and country planners assess their current and previous goals regarding the implementation of information technologies in their libraries and the adoption of information technology training in order to execute their future planning. Therefore, this study is of sufficient importance to library professionals and to the field of library and information science in India.

Objectives of the Study

The purpose of this study is to investigate the perceptions of the professional staffs of university libraries toward information technology innovation and the training. More specific objectives of the study are as follows:

1. To identify the existing practices of the use of information technology in university libraries in India.
2. To identify the perceptions of library professionals in relation to information technology innovations in Indian university libraries.
3. To identify the perceptions of library professionals in relation to information technology training.
4. To identify what perceived attributes of information technology innovations in Indian university libraries have an effect on the diffusion of IT.

Research Methodology

The evolution, development and advances in IT have brought in a dramatic and an unprecedented revolution in library profession and practice. This study seeks to answer question pertaining to the reaction of library professionals' in Panjab University Library to these phenomenal and global changes in the practice of librarianship. The survey method was used to conduct this study. The population of the study consisted of the library professional staffs of Panjab University Chandigarh. The data collection tools were a questionnaire and an interview method. Out of 40 questionnaires 30 (75%) were received and 30 (75%) were usable. The researcher has personally contacted to each and every respondent so as to get clear picture of aforesaid objectives.

Sample	Total Sample	Sample Size	Percentage
Deputy Librarian	08	06	75 %
Assistant Librarian	18	15	
Library Assistant	14	09	
Total	40	30	

From the above mentioned library professionals population, 75% respondent was selected for detailed study.

Results and Discussion

In line with the intentions of the research the results are reported for the demographics of the population and each of the objectives of the study.

Table 1. Age of Respondents

Age of Respondents	Total	Percentage (%)
21-30	08	26.67 %
31-40	12	40 %
41-50	06	20 %
51-60	04	13.33 %
Total	30	100 %

Table 1 reflects the age grouping of the respondents who participated in this study. Table shows that majority of respondents, i.e. 40% belongs to age group of 31-40 years, followed by 26.67% respondents lie in the age group of 21-30 years, followed by 20% respondents belongs to age group of 41-50 years. Only 13.33% of the research scholars

are in the age group of 51-60 year. It is quite evident from the table that majority of professionals are young.

Table 2. Years of Experience by the Respondents

Years of Experience	Total	Percentage
1-5	03	10 %
6-10	05	16.67 %
11-15	08	26.67 %
16-20	04	13.33 %
21 or more	10	33.33 %
Total	30	100 %

In the above table, the study population has been divided into 5 groups viz., 1-5 year, 6-10 years, 11-15 years, 16-20 and more than 21 years. It is found that majority of respondents are doing their professional work more than 20 years (33.33%), followed by 11-15 years (26.67%), followed by 6-10 years (16.67%), followed by 16-20 years (13.33%). It is clear from the above table that only 3 respondents (10%) are having professional experience of 1-5

years.

Table 3. Respondent's Level of Education

Respondent's Level of Education	Total	Percentage
Bachelor degree in Library & Information Science	02	6.67 %
Masters in Library & Information Science	24	80%
Doctorate	04	13.33%
Total	30	100%

Table 3 presents the specialization of the respondents by their degree. Twenty-four (80%) of the respondents have their Master Degree in Library & Information Science followed by four (13.33%) have their Doctorate Degree in Library & information science. It is clear from the above table that only 2 respondents (6.67%) are having Bachelor degree in Library & information science with master degree in different stream.

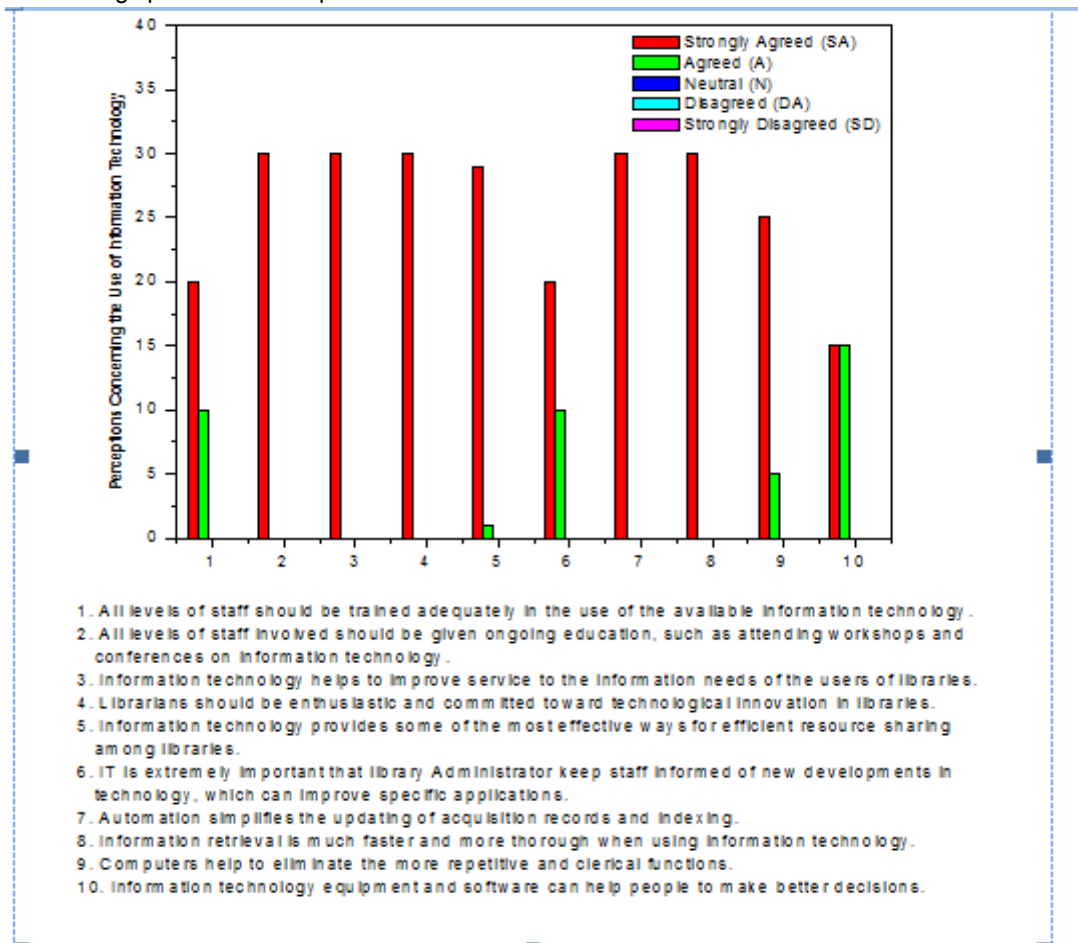


Figure 1. Perceptions Concerning the Use of Information Technology (IT)

Figure 1 shows the perceptions concerning the use of information Technology (IT). Respondents were asked to indicate the importance and application of IT in university libraries and then, views were

collected from respondents. According to Figure 1, all respondents either strongly agreed or agreed on the use of IT in university library.

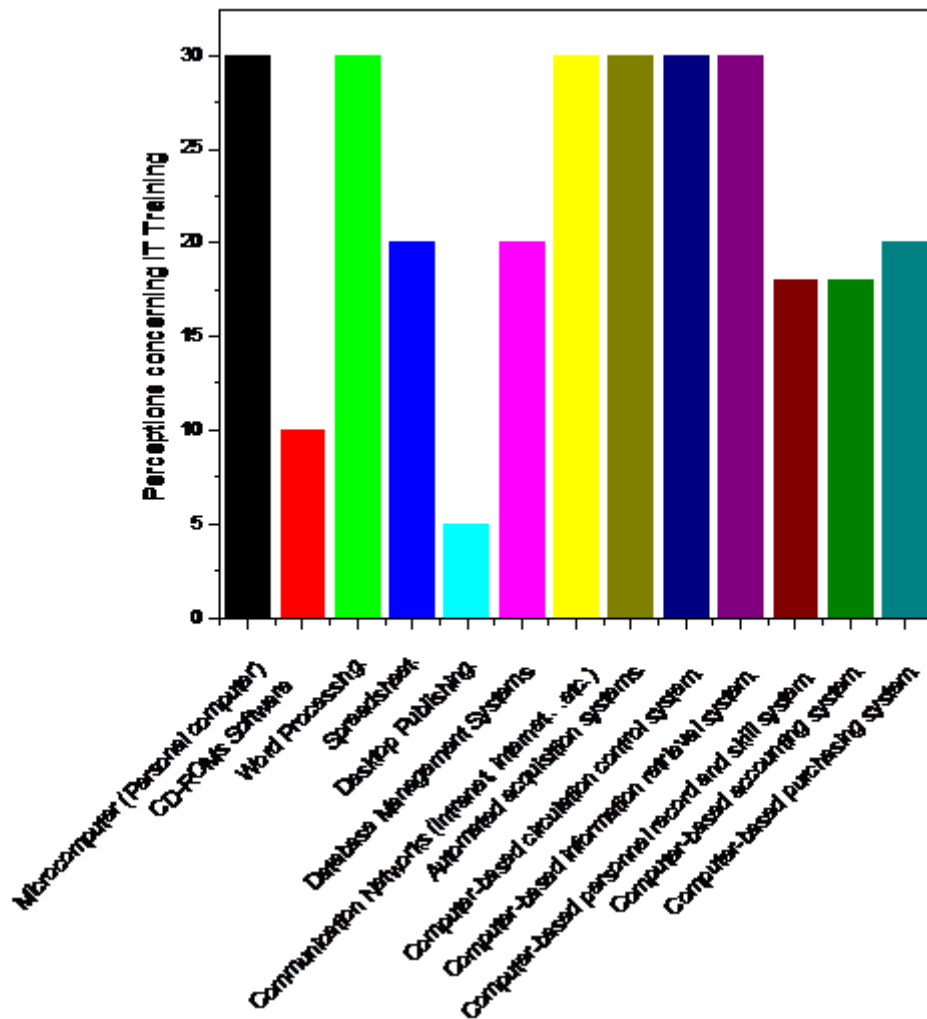


Figure 2. Perception Concerning IT Training

Figure 2 reveals the perception concerning IT training by the respondents. Figure indicates that all the respondents are agreed that microcomputer, word-processing, communication networks, automated acquisition system, computer based circulation control system, and computer based information retrieval system should be included in the IT training, followed by the 66.66% of the respondents are agreed that spreadsheet, database management

system and computer based purchasing system should be included, followed by 56.66% are agreed that computer based personal record and skill system and computer based accounting system should be included, followed by 33.33% of the respondents are agreed in CD-ROMs software training, followed by only 16.66% of the respondents are agreed for desktop publishing training.

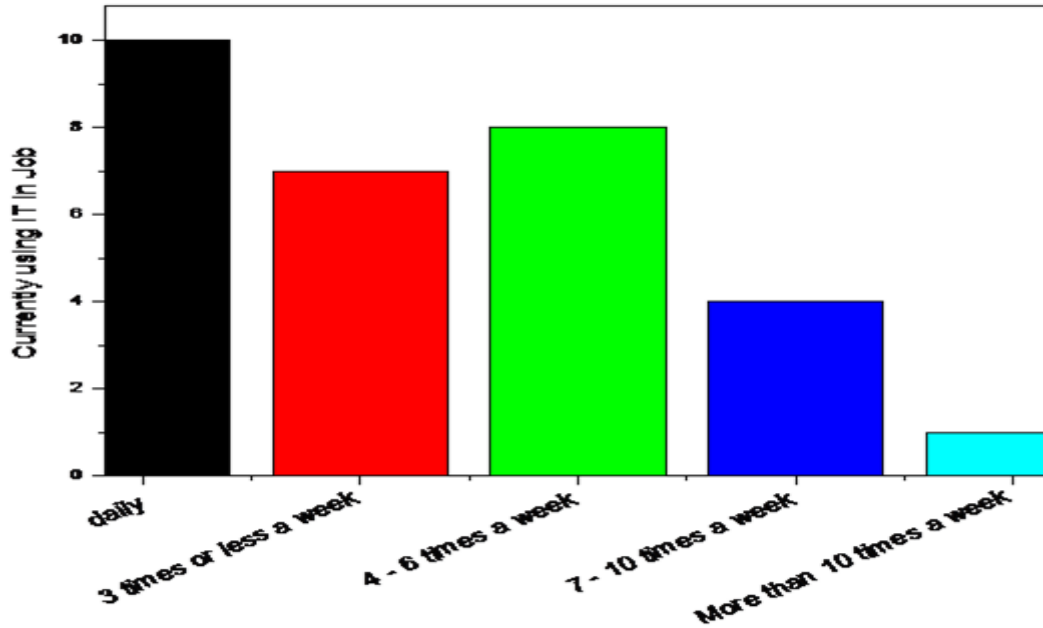


Figure 3. Using IT in Currently Job

Figure 3 indicates that one-third of the respondents are using IT daily in their job. Five respondents are using IT more than seven times or more than that in a week while remaining fifteen

respondents like to use IT only 6-3 times or less in a week. These observations reveal that fifty percent respondents are not frequently using the IT in job.

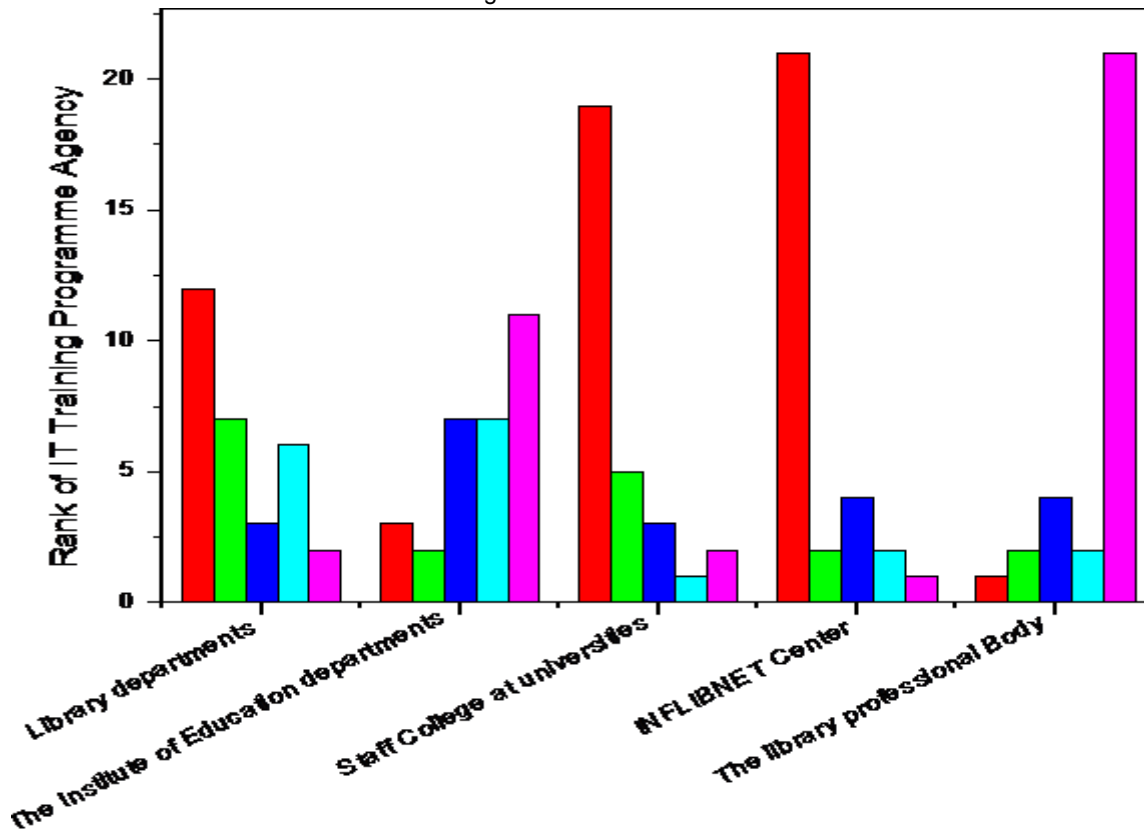


Figure 4. Rank of IT Training Program Agency

Figure 4 respondents were asked to rank the five training agencies that provide IT training according to their priority. Figure indicates that the majority of respondents, i.e., 66.66% give their first rank to INFLIBNET Center and the Library professional body for IT training, followed by 60% of

the respondents give second rank to staff college at universities, followed by 46.66% respondents give their third rank to library departments, followed 43.33% respondents give their fourth rank to the institute of education department.

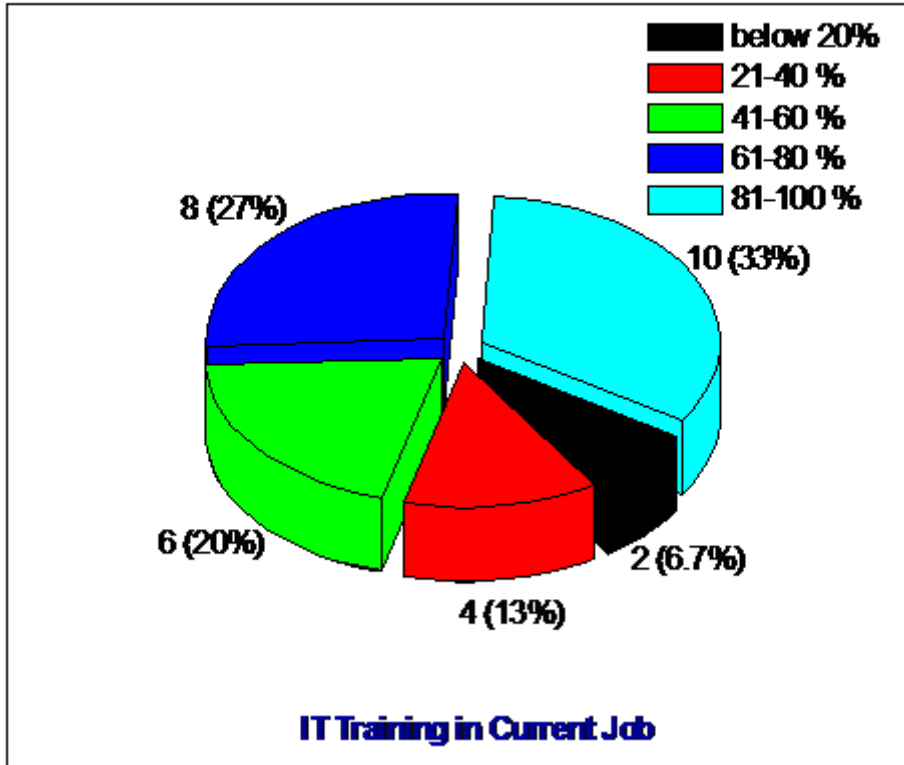


Figure 5. IT Training in Current Job

Figure 5 reveals that majority 10(33%) of the respondents believe that they have received enough IT training in their current job, followed by 8(27%),

followed by 6(20%), followed by 4(13%) and only 2(6.7%) of the respondents are not confident enough to IT training in their current job.

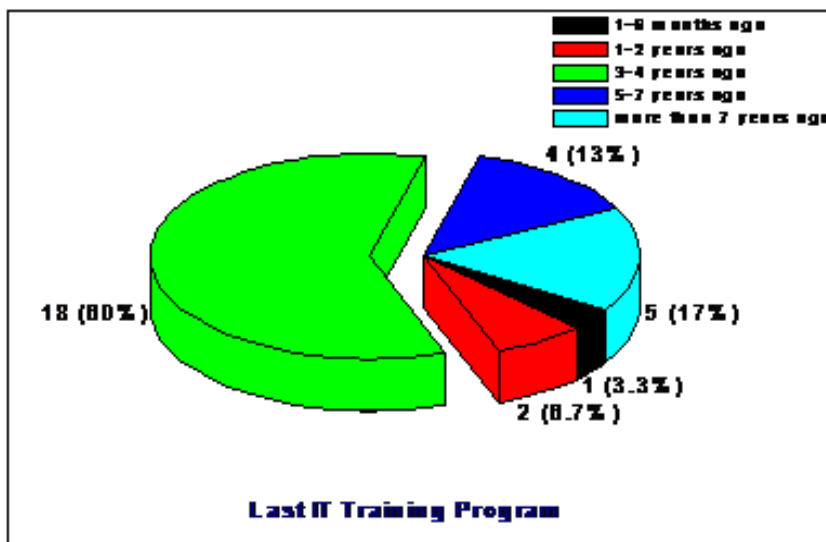


Figure 6. Last IT Training Program

According to Figure 6, 18 (60%) of the respondents indicated that the last attended IT

training was from 3-4 years ago, followed by 5(17%) from more than 7 years ago, followed by 4(13%) from

5-7 years ago, followed by 2(6.7%) from 1-2 years

ago and only 1(3.3%) from less than one year ago.

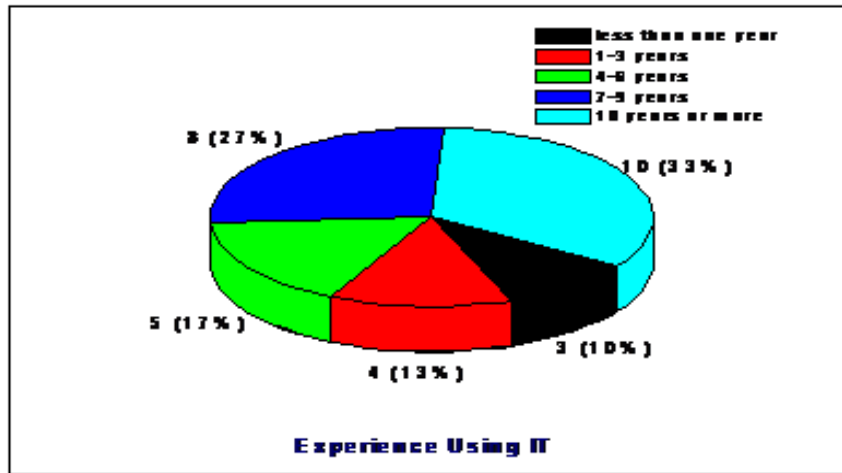


Figure 7. Experience Using IT

Figure 7 reveals the experience of using the IT by the respondents. Figure indicates that majority of the respondents, i.e., 33% (10) are using IT applications since ten or more years, followed by 27%

(8) using IT from 7-9 years, followed by 17% (5) using IT from last 4 –6 years, followed by 13% (4) using IT from last 1-3 years and 10% (3) are using IT less than one year

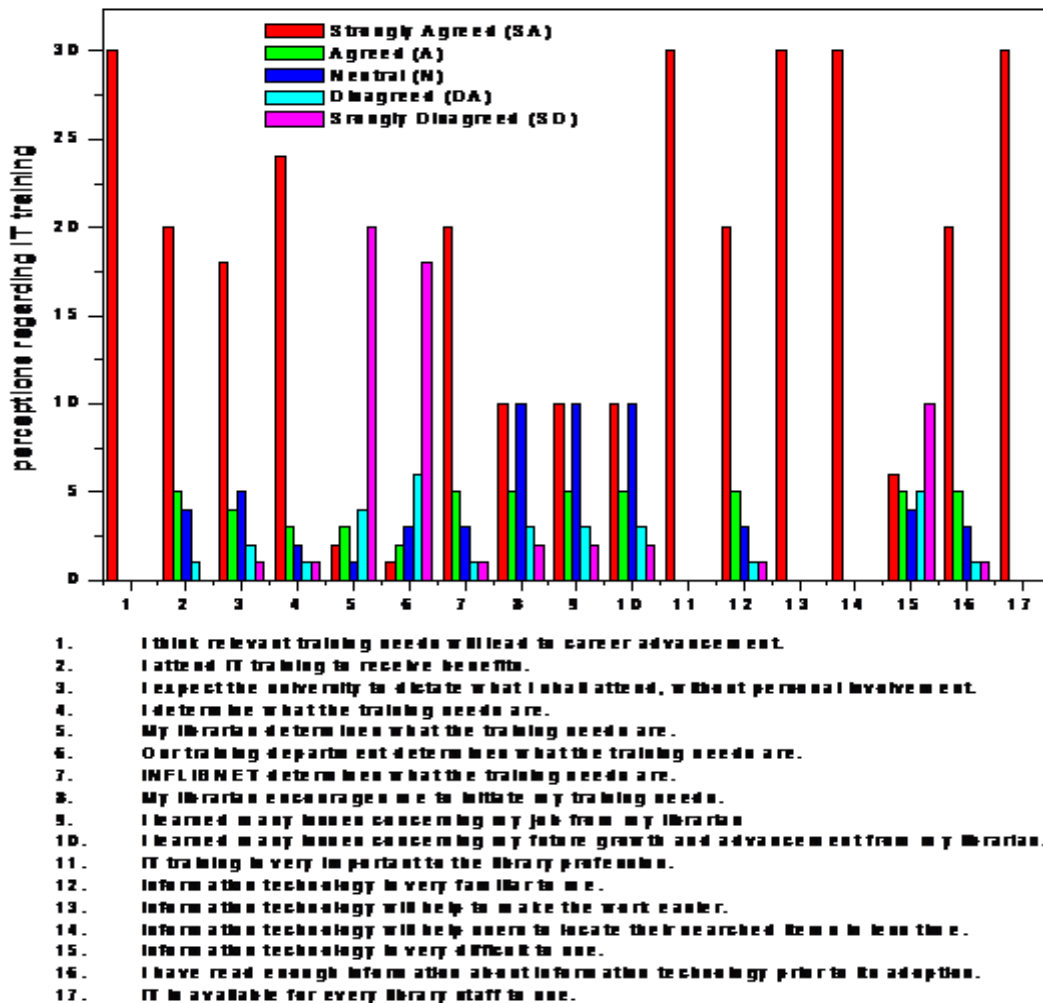


Figure 8. Perceptions Regarding IT Training

Figure 8 indicates the seventeen factors, which shows the perceptions concerning the use of information Technology (IT) by the respondents. According to Figure all respondents either strongly agreed or strongly disagreed but some times they are either agreed or disagreed otherwise they are neutral.

Findings

The following findings have been drawn from the study:

1. The perceptions concerning the use of IT respondents were asked to indicate the importance and application of IT in university libraries and then, views were collected from respondents. All respondents either strongly agreed or agreed on the use of IT in university library.
2. Among the respondents one-third are using IT daily in their job. Five respondents are using IT more than seven times or more than that in a week while remaining fifteen respondents like to use IT only 6-3 times or less in a week. These observations reveal that fifty percent respondents are not frequently using the IT in job.
3. Respondents were asked to rank the five training agencies that provide IT training according to their priority. The majority of respondents, i.e., 66.66% give their first rank to INFLIBNET Center and the Library professional body for IT training, followed by 60% of the respondents give second rank to staff college at universities, followed by 46.66% respondents give their third rank to library departments, followed 43.33% respondents give their fourth rank to the institute of education department.
4. Among the respondents 10(33%) believe that they have received enough IT training in their current job, followed by 8(27%), followed by 6(20%), followed by 4(13%) and only 2(6.7%) of the respondents are not confident enough to IT training in their current job.
5. This study found that 18 (60%) of the respondents indicated that the last attended IT training was from 3-4 years ago, followed by 5(17%) from more than 7 years ago, followed by 4(13%) from 5-7 years ago, followed by 2(6.7%) from 1-2 years ago and only 1(3.3%) from less than one year ago.
6. This study shows the experience of using the IT by the respondents. Majority of the respondents, i.e., 33% (10) are using IT applications since ten or more years, followed by 27% (8) using IT from 7-9 years, followed by 17% (5) using IT from last 4 –6 years, followed by 13% (4) using IT from last 1-3 years and 10% (3) are using IT less than one year.
7. This study indicates the seventeen factors, which shows the perceptions concerning the use of information Technology (IT) by the respondents. All respondents either strongly agreed or strongly disagreed but some times they are either agreed or disagreed otherwise they are neutral.

Conclusions

The purpose of this study was to investigate the perceptions of university libraries' professional about information technology innovation and the training. In order to reach the study findings, six research questions were asked. These questions were:

1. What is the perception of library Professionals about information technology innovation in libraries?
2. What is the perception of library Professionals about training in the Indian university libraries in terms of the following:
 - a. Who determines training needs?
 - b. What is the role of the Librarian in the employee learning process?
 - c. Who decides what training program is appropriate for the employee?
3. What are the relationships of selected demographic variables, such as the level of education and years of experience, to the perceptions of library staff in regard to information technology training?
4. What are the perceived attributes of information technology innovations in university libraries?
5. Which agencies should be responsible for providing information technology training opportunities for library staff employed in university libraries?

The Librarian at Indian university libraries identified the decision stage, they were asked to indicate which decision was used for each of the following:

1. Bringing or adopting information technology to the university library.
2. Establishing training needs.

It was found that collaborative decision-making is practice at university for adopting information technology to the library. Optional decision-making is practiced at Panjab University Library when establishing training needs.

In regard to the communication channels, the training agencies, specialized journals, newspapers, and other colleagues are mentioned as the type of media that provide enough information about the offered IT training programs.

The last question in this study asked respondents to identify which agencies they felt should be responsible for providing information technology training opportunities for library professionals in Indian university libraries.

Figure 4 respondents were asked to rank the five training agencies that provide IT training according to their priority. Figure shows the participants' responses regarding the responsible IT training agency for library professionals in Indian university libraries. When the library professionals were asked to rank, according to their own priorities, the five training agencies that provide information technology (IT) training. Figure indicates that the majority of respondents, i.e., 66.66% give their first

rank to INFLIBNET Center and the Library professional body for IT training, followed by 60% of the respondents give second rank to staff college at universities, followed by 46.66% respondents give their third rank to library departments, followed 43.33% respondents give their fourth rank to the institute of education department.

References

1. Anderson, B., and Huang, S. T., 1993. *Impact of new library technology on training paraprofessional staff. The Reference Librarian*, 39, pp. 21-29.
2. Baruchson-Arbib, Shifra, 2002. *A view to the future of the library and information science profession: A delphi study. Journal of the American Society for Information Science and Technology*, 53(5), 2002, pp.397-408.
3. Boyce, J. I., 1990. *Continuing education for paraprofessionals. ILA Bulletin*, 52 (Spring), pp.179-184.
4. Busha, C. H., 1980. *Research methods in librarianship: techniques and interpretation*. New York: Academic Press.
5. Chaterjee, Amitabha, 2002. *LIS education in India: trends and challenges. Papers presented at National Seminar of Information Management in e- libraries (IMEL) held at Central library Indian Institute of technology Kharagpur from 26-27 February 2002. New Delhi: Allied Publishers*, pp.623-627.
6. Chicago: ALA.
7. Cochrane, P. A., 1992. *Information technology in libraries and Ranganathan's five laws of library silence, LIBRI*, 42 (3), pp. 235-241.
8. Das, Anup Kumar and Das, Bidyarthi, 2002. *Training and development programmes for library and information professionals. University News*, 40(1), 7-13 January, 2002, p. 11.
9. Devi, Thiyam Sayabai and Murhy, T.A. V., 2006. *LIS profession : A search for identity. IASLIC BULLETIN*, 51(2), pp. 2006, pp.26-30.
10. Garg, Vinod Kumar and Bansal, Jivash, 2007. *Automation of Indian Languages through Gist: A Study Of Panjab University Library. In: Paper presented at 5th International CLIBER-2007 held at Panjab University, Chandigarh, 08-10 February, 2007. Ahmedabad: INFLIBNET Centre, 2007, pp.486-490.*
11. Griffiths, J.-M., 1999. *Why the Web is not a library. FID Review*, 1(1), 1999, pp.13-20.
12. Kannappanaver, B.U. and Kumbargoudar, 2005. *Effectiveness and usefulness of training programmes for library professional in India: survey of the library professionals working in agricultural science university-libraries. ILA Bulletin*, 41(4), 2005, pp.18-22.
13. Koovakkal, Dineshan and Jalaja, V., 2003. *Re-engineering human resources in libraries for handling electronic information. In: Paper presented at the 48th ILA conference for Electronic Information Environment and Library Services: A Contemporary Paradigm. Bangalore, 22-25 January, 2003. Delhi: ILA*, pp.779-84.
14. Kumaresan, S.C., 2002. *Quality training for library and information professionals. UNIVERSITY NEWS*, 40(23), 10-16 June, 2002, pp.1-4.
15. Nettlefold, B. A., 1989. *Para-professionalism in Librarianship. International Library Review*, 21, pp. 519-531.
16. Prakash, A. Jaya and Charya, V. Krishnama, 2006. *Role of LIS professionals in the e-information literacy in digital era. Papers presented at 4th International Convention CALIBER-2006, Gulbarga, 2-4 February, 2006. Ahmedabad : INFLIBNET*, pp.434-440.
17. Rajashekharan, K., 1991. *The impact of information technologies in increasing information access in developing countries. In: Papers presented at the 37th All India Library Conference for National Information Policies and Programmes, IIT, Madras, December 4-7, 1991. Delhi: ILA*, pp. 420-425.
18. Ramana, P Venkata, 2006. *The changing role of librarian in a challenging dynamic web environment. Papers presented at 4th International Convention CALIBER-2006, Gulbarga, 2-4 February, 2006. Ahmedabad : INFLIBNET*, pp.170-179.
19. Sharma, S.K. and Singh, Shankar, 2003. *Need for a training policy for power sector librarians in India. In: Papers presented at the 48th All India Library Conference for Electronic Information Environment and Library Services: A Contemporary Paradigm held at NIMHANS, Bangalore, 22-25 January, 2003. Delhi: ILA*, pp. 813-819.