USE OF INFORMATION COMMUNICATION TECHNOLOGY BY VISUALLY IMPAIRED STUDENTS AT SAVITRIBAI PHULE PUNE UNIVERSITY

Priyanka Malve* **Dr. Vivek Sathe****

*** Librarian**
Sanghvi Keshri College of Arts and Commerce,
Chinchwad, Pune, Maharashtra, India.

**** Librarian**
Chetna Senior College of Arts,
Aurangabad, Maharashtra, India.

QR Code

Abstract: - *Information and communication technology plays a vital role in bringing out changes in our society. ICT provide an auditory and visual teaching approach. This helps in read aloud anything that is written on the board or presented on handouts, PowerPoint slides, or any other visual aids, and also create text-based descriptions of materials that are primarily visual or graphical in nature. This study investigates the use of information & Communication Technology by the visually impaired students of SPP University. The main objective is to find out software used by visually impaired Students. For collecting the required data for this study survey method has been used. In this study 51(100%) students takes for sample. The study found that majority of students are computer literate. Students takes help of teachers and friends for ICT. Various software is in foreign language. The foreign accent of screen reading programs is a challenge for the students. It is found that majority of the students need advanced training of ICT to empower to them. This study provides useful information about the use of information and communication technology by visually impaired students at SPP University.*

Keywords: Information Communication Technology, Visually Impaired.

Introduction:

Information and communication technology plays a decisive role in bringing out changes in education system. As technology becomes more sophisticated and more affordable, the range of devices that are provided also increases our life style, our business, our educational system, and our political and out social value. In this age of information and communication technology the role of university libraries has changed radically undeveloped countries.

Information and communication technologies (ICT) are the most influencing factors of Today's information society. The term of ICT is used to

express the hardware and software Usability for information transportation and conduction communications linked by a vast array of technological protocols. It also covers internet service provision, information technology Equipment and services, media and broadcasting, library and documentation centers, network Based information services and other related communication activities (Anie and Achugbue, 2009). The main function of ICT is availability of right information to the user at the Right time for appeasing his thrust of knowledge. ICTs have brought dramatic change the Traditional ways of library profession and practice, both challenging and full of opportunity at Same time.(Qutab, Bhatti, & Ullah, 2014).

Need of the Study:

It was observed that a greater number of Visually Impaired Students taking admission for higher education in different universities because of development of facility available for them. The students are scattered through the institutions. Hence the need was felt for an ICT for the visually handicapped person. Need is realized to start research to improve educational status of visually impaired students and to improve the ICT knowledge of visually impaired students.

Statement of the Problem:

In Advanced Technology Blind Students Learning Centre teach majorly JAWS screen reader software so their visually impaired students are not aware from Advanced Technology and other Screen reader software. Screen reader is very important for the visually impaired without screen reader software they can't work. Visually impaired students can use mobile phones with screen readers but they not aware that facility so that they face so much problem and they want to get effective training of ICT for improve their ICT knowledge.

Objectives of the Study-

The main objective of the study is to investigate the use of information communication technology by visually impaired students of Savitribai Phule Pune University.

1. To know their confidence/ability of doing ICT tasks.
2. To find out software used by visually impaired students.
3. To identify the problems encountered by visually impaired students while using ICT tools at Advanced Learning for Blind Students' Centers.
4. To give suggestions for improving use of the ICT tools.

Research Methods:

Survey method has been used for collecting the required data for this study. One of the most commonly used data gathering in survey is the questionnaire. A systematic questionnaire was prepared for collecting data, in that total 21 questions were included. Total 51 Respondents are taken into consideration to collect the data.

Data Collection:

The main Purpose of this study is to Investigate the of ICT by Visually Impaired Students in Savitribai Phule Pune University. A Questionnaire Technique used for data collection. The total of 51 Questionnaire distribute to students and Total Questionnaire filling up from the students of SPPU.

Significance of the Study:

"Using information communication technology involves more than overcoming environmental barriers, which represent identity and a strategy of distinction". (Ravneberg 2009). Using technology people express their personal and social characteristics, and through their use of technology people make assumptions about each other's Identify and belonging (Hocking 2000). Thus, the adopting or rejection of information communication technology is best understood in the light of its impact on identity (Wielandt et al 2006).

Results & Discussion:

Table No -1: Table showing Sources of Information:

Serial No.	Answer	Response	Percentage (%)
1	Library	24	47%
2	Internet	39	77%
3	Group Discussion	14	28%
4	Other	0	0%

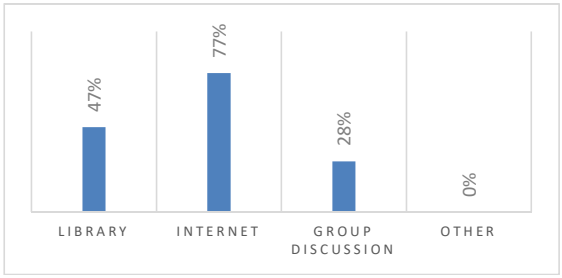

Figure No.1: Figure showing source of information

The Information Communication Technology is very important to visually impaired Students to empower to their life. They can easily learn with the help of internet or multimedia educational portals. To find out preference of resources get most information the question generally from which resources do you get the most of information, was asked and the responses are summarized in the table.7.1. It is found that the Visually Impaired Student get most information from all resources i.e. 77%. Students use Internet for getting more information, 47% students use Library for Information. And only 28% students use Group Discussion formula for getting information. At present the number of Internet using respondents are more than library or G.D. The usage of the library and G.D is still less as compared to Internet because users comfortable with Internet and they find it difficult to read print book and lack of time in G.D. Users have knowledge about the use of internet.

Table No -2: Table showing Access or Use of Computers:

S. No.	Answer	Response	Percentage
1	Home	39	77%
2	Department	9	18%
3	Hostel	3	06%
4	Computer Lab	49	96%

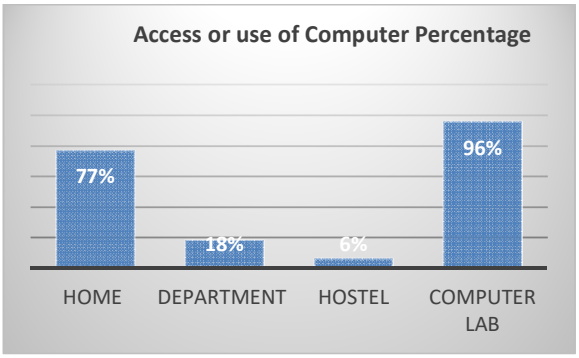

Figure No. 2: Figure showing access or use of computers.

The majority of respondent are using computer at Computer Lab. All 51 respondent gave response for this question. (96%) Visually Impaired students use computer Lab. 76.50(77%) Visually Impaired students use computer at home because they have personal laptop. 17.60(18%) students use computer at their Departmental Lab because they have not personal laptop / computer so they use their departmental lab. And 6% students use computer at hostel because they live in hostel. It means ATBSLC are provide sufficient resources to students.

Table No - 3: Table showing From whom respondent take help

Serial No	Answer	Response	Percentage
1	Friends	46	90.20%
2	Parent	13	25.50%
3	Teachers	47	92.20%
4	Self	27	52.90%
5	Other	0	0%

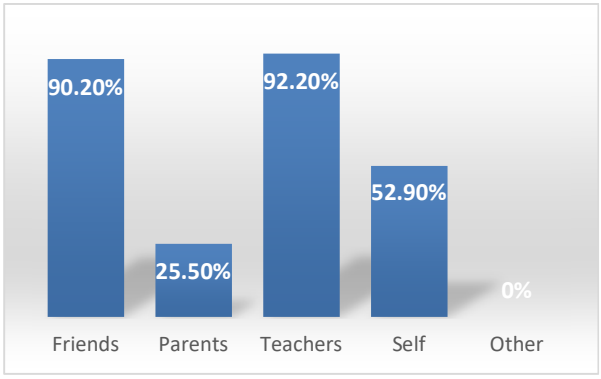

Figure No.3 Response

In response to this question 47 respondents i.e. 92% who take help of their teacher. Because when they get problem or query in using computer then teacher helps very well. 90% of respondents take help of friends in using ICT. 53% respondents take help of self. Means they do work by self. And 26% respondents take help from their parents. Almost students take help of teacher or friends because teacher can solve their problem and teach very well and friends also.

Table No -4: Table showing Training on Basic Computer Application

Serial No.	Answer	Response	Percentage
1	Yes	51	100%
2	Not	0	0%

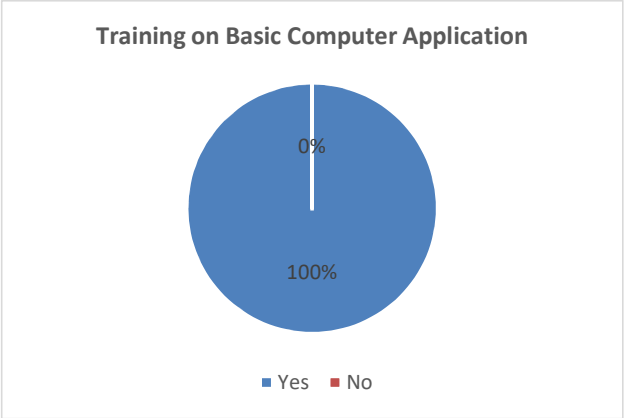

Figure No. 4 Training on Basic Computer Application

A good number of respondents i.e. 100% are getting Training on Basic Computer Application. It is compulsory to new comer's students so 100% student get this Training.

Table No -5: Table showing Using Technology Facility

Serial No.	Technology Facility	Response	Percentage
1	Screen Reader	50	98
2	Magnifier	21	41.2
3	Braille Printers	2	3.9
4	Scanners	35	68.6
5	Other	3	5.9

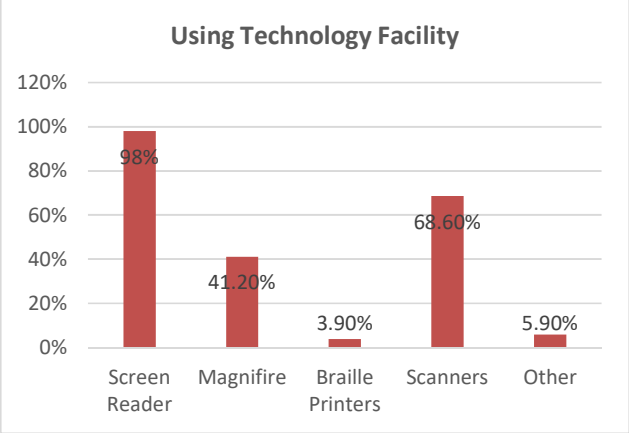

Figure 5 Using Technology Facility

This question was asked to find out which technology facility used by respondent. For the Visually Impaired students have various types of technology facility. But which facility they used. The respondents were able to choose multiple option so accumulation is more. The detailed information about this question is shown in table no.5

It is observed that majority of respondent i.e. 98% are using screen reader software. Advanced Technology Blind Learning Centre have this facility. In this department student use this facility. 69% respondent using scanner facility and this facility also have in this center.

Screen reader software is a most important and popular software to Visually Impaired students. It is very useful to Visually Impaired Students so their first choice is Screen reader. And Advanced Technology Blind Learning Centre have this facility.

Table No -6: Table showing Format using advanced Technology Blind Students Learning Centre Material

Serial No.	Answer	Response	Percentage
1	Braille	0	0%
2	Large Print	0	0%
3	Electronic	42	82%
4	Audio Format	36	71%

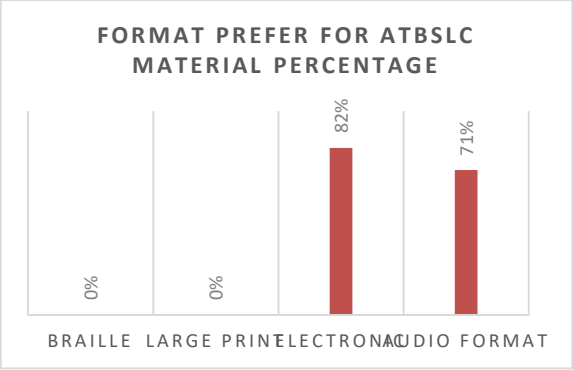

Figure No. 6 Format using advanced Technology Blind Students Learning Centre Material

Table No -7: Table showing Respondent Require Training for effective use of Information Communication Technology –

Serial No.	Answer	Response	Percentage
1	Yes	50	98%
2	No	1	2%

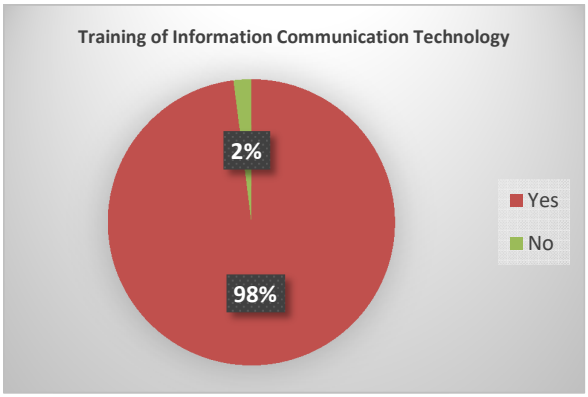

Figure No. 7 Respondent *Require* Training for effective use of Information Communication Technology

This question was asked to find out the respondent require training for effective use of information communication technology. The detailed information about this question is shown in figure.

It is observed from this question that 98% respondent want training of information communication technology. On the other hand 2% respondent don't want this training they are satisfied with Basic training. 98% respondent also satisfied with basic training but they want advanced training also for improving the ICT knowledge.

Conclusion:

It is revealed that a majority of the visually impaired students are computer literates. ICT can effectively use for imparting knowledge on visually impaired students. The support of friends & teacher is very helpful for the students to acquire the skill of ICT. It is found that a majority of the students use desktop & laptop frequently & a frequently use screen reader software. However, the foreign accent of screen reading programs is a challenge for the students. Rapid development in hand-held devices especially in mobile phones provides tremendous opportunities for visually-impaired students. The students face difficulties in the use of various software and using computer. Internet use is generally not so common among the students. It is found that the students are potential enough to use ICT. They lack confidence in high level ICT task and often refuse to it. The use of ICT depends on the environment within which it is to be used, including the constraints, barriers and the attitudes of the users. The students can use ICT independently if the designs provide enough degree of modification to assist the visually impaired. The students should give sufficient training to empower them with ICT.

Reference:

1. Haneefa K., M., & C., S. (2014). Use of Information and Communication Technology by Visually-impaired Students: A Study in University of Calicut, Kerala. DESIDOC Journal of Library & Information Technology,

2. Seena, S. T., & KG Pillai, S. (2014). A study of ICT skills among library professionals in the Kerala University Library System. Annals of Library and Information Studies (ALIS), 61(2), 132-141.

3. Kleynhans, S.A., Fourie,I. (2014). Ensuring accessibility of electronic information resources for visually impaired people. Emerald Group Publishing Limited, 32(2) 368-379.

4. Ekwelem, V. O. (2013). Library services to disabled Students in the digital era: challenges for outcome Assessment.

5. Eskay, Michael. & Chima, J. N., (2013). Library and Information Service Delivery for the Blind and Physically Challenged in University of Nigeria Nsukka Library.European Academic Research, 1,

6. Anie, S.O., & Achugbue, E.I. (2009).Library Information and Communication Technology in Nigerian Universities. Library Hi Tech News, 26(7), 8-10.

7. Saowapakpongchai, K., & Prougestaporn, P. (2012, May). Web Accessibility Model for Visuallyimpaired Students on ELearning in Higher Education. In Proceeded on The 2nd International Congress on Interdisciplinary Research and Development.

8. Şimşek, Ö., Altun, E., & Ateş, A. (2010). Developing ICT skills of visually impaired learners. Procedia-Social and Behavioral Sciences, 2(2), 4655-4661.

9. Grönlund, Å., Lim, N., & Larsson, H. (2010). Effective use of assistive technologies for inclusive education in developing countries: Issues and challenges from two case studies. International Journal of Education and Development using ICT, 6(4), 5-26.

10. Ani, O. E., Esin, J. E., & Edem, N. (2005). Adoption of information and communication technology (ICT) in academic libraries: A strategy for library networking in Nigeria. The Electronic Library, 23(6), 701-708.