



Full Length Research Article

AWARENESS AND USE OF INTERNET RESOURCES BY VISUALLY -IMPAIRED STUDENTS IN MAULANA AZAD LIBRARY AT ALIGARH MUSLIM UNIVERSITY, ALIGARH

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ABSTRACT

The aim of this study is to investigate the awareness and usage of internet resources among U.G., P.G. and Ph. D. Visually Impaired students in Maulana Azad Library, A.M.U., Aligarh. Study was carried out the survey methods and Questionnaire tool were used to collect data. Analyses revealed that majority of the U.G,P.G. and Ph.D. Students are Computer literatures and are aware of online resources. The mostly used assistive technology is screen reader. It is found the students are depending on internet resources mainly for their academic purpose. Responses show that lack of proper training creating a big barrier in using internet. The Result of the study would helpful in getting good idea of the student's awareness level of internet resources and assistive technologies. Mostly the Ph.D. Students are strongly agree with internet resources in the Maulana Azad Library. The outcome of the study help to maintain, to provide adequate services and training to visually impaired students to access information without any barriers as well as extended to all the facilities and all department of the university.

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INTRODUCTION

The Internet is a global network connecting millions of computers. More than 190 countries are linked into exchanges of data, news and opinions. The use of internet and resources are increasing worldwide day by day. Access to information is major problem for the disabled in India. The visually impaired in India till today depend on two primary sources for their information. One is Braille Books and the other is talking book service. But today ICT has helped to reduce the digital divide between sighted and the blind by providing information on their desktop. ICT and its tools are highly flexible and provide great scope for usage by persons with vision impairment. Information available to the seeing world is now available to the persons with vision impairment. It is very evident that those who are computer literate are able to gain education, and empowerment as compared non-literate in technology. Still with all these technologies the visually impaired has been facing problems in accessing Information and communication Technology (ICT) paved way for Visually impaired in new means of solution through software and equipments. New hopes are streaming with the help of assistive devices. It is an information-sharing model that is built on top of the Internet. Internet service is good facility provide for visually impaired peoples.

Libraries are also taking advantage of advances in ICTs to increase information access for the visually impaired. A broad range of ICTs otherwise called adaptive or assistive technologies are now available to provide access to information in electronic database and on the internet giving blind users equal opportunities' as the sighted.

Maulana Azad Library

The foundation of the Library was laid in 1877 at the time of establishment of the Mohammedan Anglo Oriental College by Lord Lytton, the then Viceroy of India and it was named after him as Lytton Library. The present grand seven-storied building was inaugurated by Late Jawaharlal Nehru, the first Prime Minister of independent India in 1960 and the Library was named as Maulana Azad Library, after a great scholar, educationist, statesman, freedom fighter and the first Education Minister of the independent India. Maulana Azad Library is the Central Library of the University with over 100 sister libraries (college/seminar library). Several systems providing search facility for library materials through OPAC and traditional catalogues are available in the Central Hall. The Library has been famous for the pin-drop silence observed by its readers. Maulana Azad Have Separate section. One of the special features of Maulana Azad Library is its service to the visually impaired students through Braille Section. Apart from the books in Braille script, a large number of documents and devices in electronic format are also available in this

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section which is provided to the students. Angel Pro, a mobile like apparatus along with memory chips of 32 GB for recording the classroom lectures and listening to the already recorded books are issued to all the students for the entire duration of the course. Many students have showed excellence and have qualified state and national have competitions after the new electronic resources and devices have been made available to them in the recent past. The Library provides a wide range of services to its users including retrieval of information, orientation, assistance in locating/searching of documents, advisory services, current awareness service (CAS), bibliographic service, bibliographic instructions, inter library loan, organization of exhibitions, press clipping, reprographic service, print facility etc.

Review of Literature

Review of related literature is very essential in a research topic because each research study has its own specific purpose. The purpose of research is to discover answer to questions through the application of scientific procedure. The main aim of research is to find out the truth which is hidden and which has not been discovered yet. Presents an overall review of studies conducted abroad as well as in India on the topic Awareness and use of Internet Resources by visually impaired students in Maulana Azad Library. The investigator reviewed only those studies which are similar to the present study.

Soman and Sudhir (2015) carried out a Survey method and Questionnaire tools were used for data collection. This study include about 74respondents from high school and senior secondary school in various schools of thiruvanthapuram. Analyses revealed that 59.46% students are computer literates and are aware of on line resources. The mostly used assistive technology is screen reader. The findings of this study would be helpful in getting a fairly good idea of students awareness level of internet resources and assistive technologies. The out come some suggestion of the study to help the school authorities, Librarians and the government to provide adequate services and training to visually impaired students to access of information without any barriers. Another study was conducted by Eskay and Chima (2013) he was discussed in the study found that there is a need to meet the needs of persons with visually impaired through assistive technologies such as Screen reader, Braille translation software, Braille writing equipment, Closed -circuit television (CCTV), and Braille embosser and scanners. Challenges militating against service delivery for the visually impaired in Nigeria and workable strategies for improving library and information services to the visually impaired are suggested.

The researcher recommended that special education teachers and the university authorities should attempt to provide facilities and employee teachers with solid Braille literacy skills to teach the visually impaired learners. Another very interesting study was conducted by Tesendic and Krsticev (2015) describe a case study of developing a web services that will act as an intermediary between the audio library system for the visually impaired and the library management systems. The aim of this paper is to describe specification and architecture of that intermediary component and it gathers all libraries in a single access point. Findings of the study was

that The international federation of library of association (IFLA) and American library of association propose guidelines which should enable better inclusion of people disabilities into libraries. Various studies were carried out to find out that awareness about computer and related Technologies among visually challenged users were very low. But today with the advancement of technologies, ICT become a part of today life of visually –challenged people. Awareness and use of internet and multimedia resources are increasing among visually –challenged people. Literature should be encouraged in this area, which will help to give additional information about the needs of visually –challenged and how they can met.

Objectives

The Present study attempts to achieve the following objectives:

- To find out the availability of computer and internet service in the Maulana Azad Library.
- To know the degree of utilization of existing internet services.
- To Know the purpose of using Internet services.
- To know the frequency of visit to the Library.
- To find out the Awareness and use of Assistive Technologies in the Library.
- To find out the Mostly Common use of Information sources in the Library.
- To find out the satisfaction with internet service provides the Library.
- To collect the suggestions from the users for further development of internet services in the Library.

MATERIALS AND METHODS

The study is based on a questionnaire based survey visually challenged students in Maulana Azad Library at A.M.U., Aligarh. The study included in undergraduate, post graduate and PhD students are use Internet resources in Maulana Azad Library. A Questionnaire was designed for the purpose of data collection and distributed among the students. As the respondents are visually challenged students data required for the study was personally filled up through interacting with them. The Collected data was analyzed.

Analysis

Status of Respondents: In order to know that status of respondents, all the respondents have been classified in three categories as shown in Table-1.on the analysis, it is observed that 20(80%) out of 25U.G.Students gave response, followed by 22(88%)out of 25P.G.Students, 15(60%) Out of 25Ph.D.Students Respectively.

Table 1. Status of Respondents

S.No.	Status	Distributed	No. of Respondents	Percentage%
1	U.G.Students	25	20	80%
2	P.G.Students	25	22	88%
3	Phd.Students	25	15	60%
	Total	75	57	76%

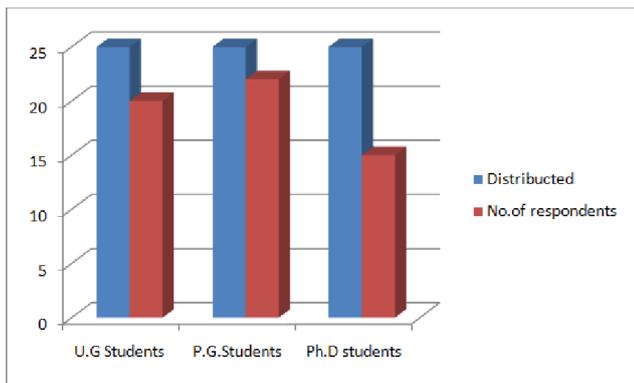


Fig. 1.

Frequency of Visit to the Library: To Know the frequency of visit to the library of visually impaired students, the frequency of visit has been classified into five categories as shown in Table-2. It is noted that 10(50%) out of 20 U.G. students visited library daily, followed by 7(35%) and 3(15%) U.G. Students visited the Library 2-3 times in a week and occasionally respectively.

Similarly, 9(40%) out of 22 P.G. Students visited Library daily, followed by 6(27%), 4(18%) and 3(13%) P.G. Students visited Library 2-3 times in a week, weekly, and occasionally respectively. Similarly, 8(53%) out of 15 P.G. Students visited Library daily, followed by 3(20%), 2(13%) and 2(13%) Ph.D. Students visited Library 2-3 times in a week, weekly, and occasionally respectively.

Awareness of Computer and Internet in the Library: In order to know the approach of awareness of computer and internet resources and others facility classified in two categories' as depicted in Table-3 use in the library. It is noted that 15(75%) out of 20 U.G. Students awareness of computer and Internet facility followed by 5(25%) others respectively. Similarly, 18(81%) out of 22 P.G. Students awareness of computer and internet facility followed by 4(18%) others respectively.

Similarly, 12(80%) out of 15 Ph.D. Students awareness of computer and internet facility followed by 3(20%) others respectively.

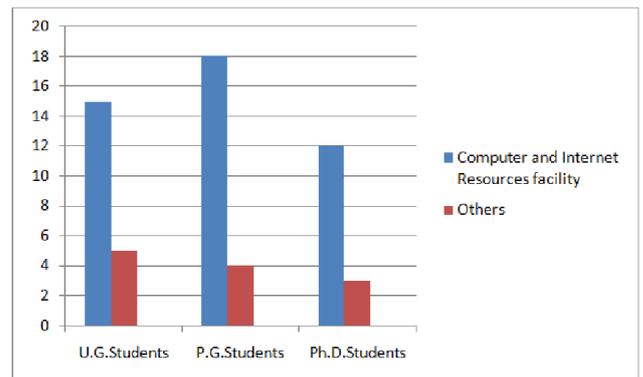


Fig. 3.

Use of WWW and Internet services in the Library: Table-4 Shows the use of internet services available in the library,

Table 2. Frequency of Visit to the Library

S.No	Frequency	No. of Respondents		
		U.G. Students	P.G. Students	Ph.D. Students
1.	Daily	10(50%)	9(40%)	8(53%)
2.	2-3 Time in a week	7(35%)	6(27%)	3(20%)
3.	Weekly	-	4(18%)	2(13%)
4.	Monthly	-	-	-
5.	occasionally	3(15%)	3(13%)	2(13%)

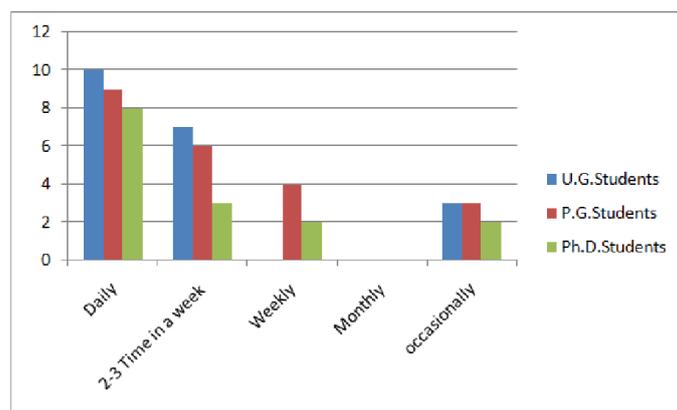


Fig. 2.

Table 3. Awareness of Computer and Internet in the Library

S.No	Sources	No. of Respondents		
		U.G. Students	P.G. Students	Ph.D. Students
1.	Computer and Internet Resources facility	15(75%)	18(81%)	12(80%)
2.	Others	5(25%)	4(18%)	3(20%)

It is noted that 18(90%) out of 20U.G.Students and followed others services 2(10%)provided in the library respectively.

- Similarly 17(77%) out of 22P.G.Students and followed other services 5(22%) provide in the library respectively.
- Similarly 12(80%) out of15 PhD Students and followed other services 3(20%) provide in the library respectively.

Purpose of using Internet in the Library: Table-5 depicted that 10(50%)out of 20U.G.Students used the Internet services to Academic Purpose, followed by 2(10%), 2(10%), 5(25), and 1(5%) U.G. Students for, Check mail, Check online Magazines/News Papers, journals, Check Social networking sites and others purpose respectively.

Similarly, 12(54%) out of 22P.G.Students used the internet services to Academic Purpose, followed by 3(13%), 3(13%), 2(40.9 %), and 2(40.9) P.G. Students for, Check mail, Check online Magazines/News Papers, journals, Check Social networking sites and others purpose respectively.

Similarly, 8(53%) out of 15Ph.D Students used internet services to Academic Purpose, followed by 3(20%), 2(13%), 1(6.66%), and1(6.66%) Ph.D. Students for ,Check mail, Check online Magazines/News Papers, journals, Check Social networking sites and others purpose respectively.

Frequency of using Internet: To know the frequency of using internet in the library for visually impaired students, the

Table 4. Use of WWW and Internet services in the Library

S.No	Sources	No.of Respondents		
		U.G.Students	P.G.Students	Ph.D.Students
1.	Internet service	18(90%)	17(77%)	12(80%)
2.	Others	2(10%)	5(22%)	3(20%)

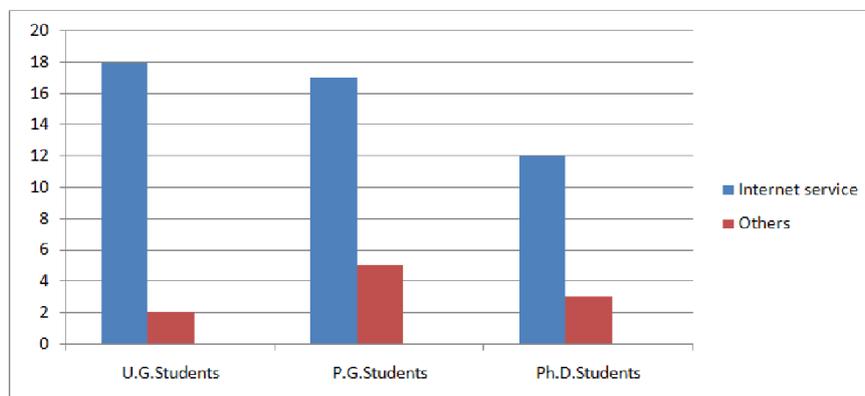


Fig. 4.

Table 5. Purpose of using Internet in the Library

S.No	Frequency	No.of Respondents		
		U.G.Students	P.G.Students	Ph.D.Students
1.	Academic Purpose	10(50%)	12(54%)	8(53%)
2.	Check e-Mail	2(10%)	3(13.6%)	3(20%)
3.	Check online Magazines /News Papers, Journals	2(10%)	3(13.6%)	2(13%)
4.	E-Books	-	-	-
5.	Check Social Networking Sites	5(25%)	2(40.09%)	1(6.66%)
6.	Others	1(5%)	2(40.09%)	1(6.66%)

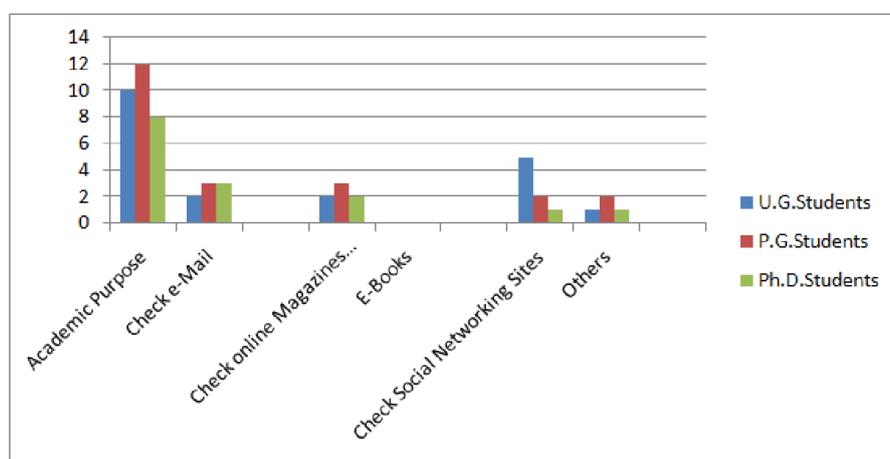


Fig. 5.

frequency of using internet has been classified in four categories as shown in Table-5 It is noted that 8(40%)out of 20 U.G Students using internet Daily ,followed by 4(20%),5(25%),and3(15%) U.G. Students using internet in the library Weekly, Monthly, and rarely respectively.

Similarly, 10(45%)out of 22P.G.Students using internet Daily, followed by 7(31.8%), 3(13.6%), and 2(9.09%) P.G. Students using internet in the library Weekly, Monthly, and Rarely respectively.

Similariy, 7(46.6%) out of 15 Ph.D.Students using internet Daily, followed by 3(20%), 3(20%), and 2(13.3%) Ph.D. Students using internet in the library Weekly, Monthly, and Rarely respectively.

Use of Assistive Technologies: Table-8 denoted that only 14(70%) out of 20U.G.Students used assistive technologies available in the library followed by4(20%) and 2(10%)U.G. Students used Screen Magnifiers and others respectively.

Similarly16 (72.2%)out of 22P.G.Students used assistive technologies available in the library followed by 4(18.1%) and 3(13.6%) P.G. Students used Screen Magnifiers and others respectively.

Similarly 8(53.3%)out of 15Ph.D.Students used assistive technologies available in the library followed by 5(33%)and 2(13.3%) Ph.D. Students used Screen Magnifiers and others respectively.

Mostly Common used Information Sources in the Library: Table-9 shows that Most common used information sources available in the library for visually impaired students. It is noted that 1(5%)out of 20 U.G. Students use Braille followed by 3(15%), 4(20%), 2(10%), 8(40.5%) and 2(10%)0 U.G. Students used Both Braille & Audio Books, Braille Audio& Daisy Books, Electronic Text, Internet and others respectively.

Similarly, 1(4.5%)out P.G. Students use Braille followed by 1(4.5%), 4(18.1%), 3(13.6%), 10(45%) and 3(13.6%) P.G.

Table 6. Frequency of using Internet

S.No	Frequency	No. of Respondents		
		U.G.Students	P.G.Students	Ph.D.Students
1.	Daily	8(40%)	10(45%)	7(46.6%)
2.	Weekly	4(20%)	7(31.8%)	3(20%)
3.	Monthly	5(25%)	3(13.6%)	3(20%)
4.	Rarely	3(15%)	2(9.09%)	2(13.3%)

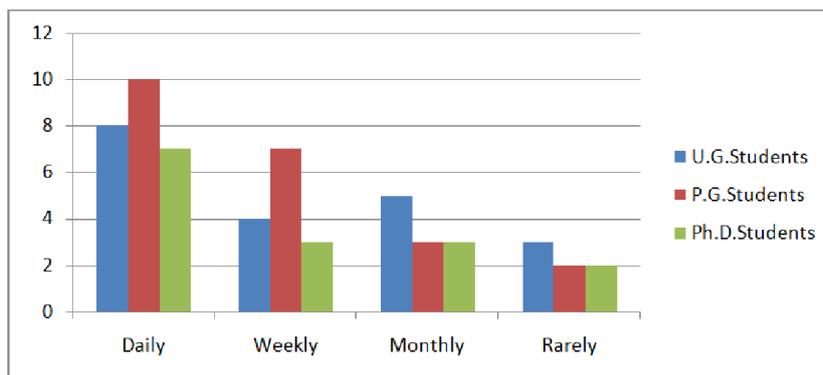


Fig. 6.

Table 7. Awareness of Assistive Technologies

S.No	Awareness	No. of Respondents		
		U.G.Students	P.G.Students	Ph.D.Students
1.	Awareness of assistive technologies	16(80%)	18(81%)	13(86.6%)
2.	Not Awareness of Technologies	4(20%)	4(18.1%)	2(13.3%)

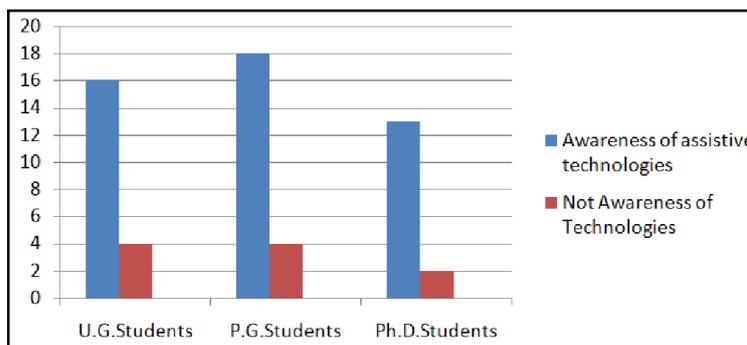


Fig. 7.

Students used Both Braille & Audio Books, Braille Audio& Daisy Books, Electronic Text, Internet and others respectively.

Similarly,1(6.6%)out of Ph.D. Students use Braille followed by 1(6.6%), 1(6.6%), 3(20%), 8(53%) and 1(6.6%) Ph.D. Students used Both Braille & Audio Books, Braille Audio& Daisy Books, Electronic Text, Internet and others respectively.

Similarly, 6(40%)out of 15 Ph. D .Students are strongly satisfied with internet resources followed by 4(26%), 2(13%) and 3(20%)U.G. Students Agree, Disagree, and Strongly Disagree with internet resources provided by the library respectively. This study sought to examine Awareness and use of Internet Resources by visually impaired students in

Table 8. Use of Assistive Technologies

S.No	Frequency	No.of Respondents		
		U.G.Students	P.G.Students	Ph.D.Students
1.	Screen Reader	14(70%)	16(72.2%)	8(53.3%)
2.	Screen Magnifier	4(20%)	4(18.1%)	5(33%)
3.	Others	2(10%)	3(13.6%)	2(13.3%)

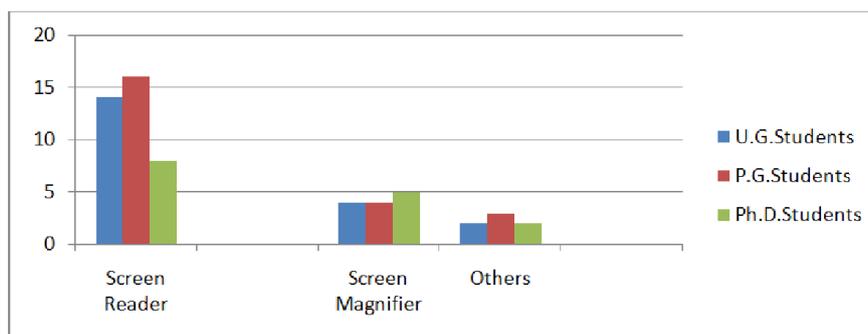


Fig. 8.

Table 9. Mostly Common used Information Sources in the Library

S.No	Frequency	No.of Respondents		
		U.G.Students	P.G.Students	Ph.D.Students
1.	Braille	1(5%)	1(4.5%)	1(6.6%)
2.	Both Braille&Audio Books Cassettes	3(15%)	1(4.5%)	1(6.6%)
3.	Braille Audio &Daisy Books	4(20%)	4(18.1%)	1(6.6%)
4.	Electronic Text	2(10%)	3(13.6%)	3(20%)
5.	Internet	8(40%)	10(45%)	8(53.3%)
6.	others	2(10%)	3(13.6%)	1(6.6%)

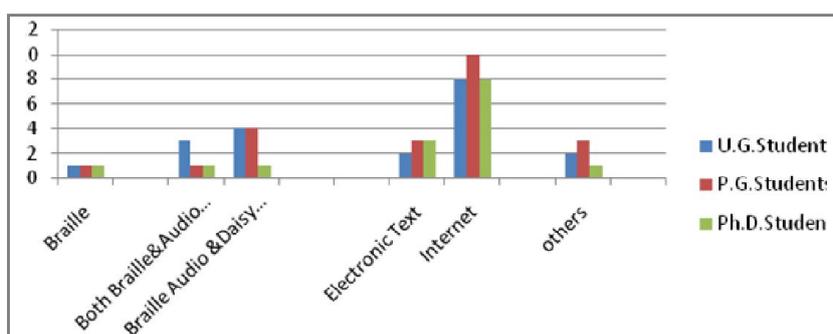


Fig. 9.

Satisfaction with Internet Resources in the Library: Table-10 indicate satisfaction with the internet resources in the library. It is observed that 5(25%) out of20 U.G. Students are strongly satisfied with internet resources followed by 10(50%), 3(15%), and 2(10%)U.G.

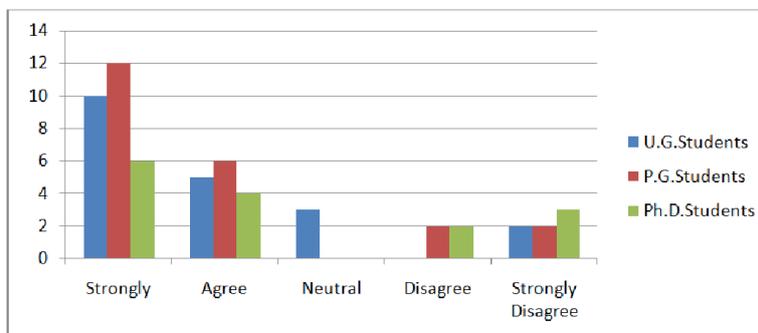
Students Agree, Neutral and Strongly Disagree with internet resources provided by the library.

Similarly, 4(18%)out of 22P.G. Students are strongly satisfied with internet resources followed by 6(27%), 8(36%), 2(9%) and 2(9%)P.G. Students Agree, Neutral, Disagree, and Strongly Disagree with internet resources provided by the library respectively.

Maulana Azad Library, A.M.U., Aligarh by taking samples from visually impaired students library studying in U.G.,P.G., and Ph. D .Degree courses to get an overview of awareness and usage of internet resources of Maulana Azad library. Most of the objectives are met within the results. Awareness and usage of Internet Resources is likely differing among U.G.,P.G. and Ph.D. Degree courses visually impaired students of Mulana Azad Library .However, the library and Internet Resources has primary responsibility to reach a minimum level of requirement so to be capable of handling the complex information needs and demands.

Table 10. Satisfaction with Internet Resources in the Library

S.No	Frequency	No.of Respondents		
		U.G.Students	P.G.Students	Ph.D.Students
1.	Strongly	5(25%)	4(18%)	6(40%)
2.	Agree	10(50%)	6(27%)	4(26%)
3.	Neutral	3(15%)	8(36%)	-
4.	Disagree	-	2(9%)	2(13%)
5.	Strongly Disagree	2(10%)	2(9%)	3(20%)

**Fig. 10.**

- Most of the respondents are P.G students are depicted in table-1.
- Most of the U.G Students and P.G. Students visit the library daily ,while most of the P.G. Students visit the library 2-3 time in a week as shown in table-2.
- Most of the U.G. Students ,P.G. Students and Ph.D. Students Awareness of computer and internet in the library as shown in Table-3.
- Table-4 Shows that the majority of the U.G,P.G .and Ph.D. Students are used Internet services in the library.
- Majority of the U.G.,P.G. and Ph.D. Students are using internet for Academic purpose in the Library as shown in Table-5
- Most of the U.G. P.G. and Ph.D. Students are using frequency internet Daily in the library as shown Table-6
- Majourity of the U.G., P.G. and Ph.D .students are awareness assistive technologies than not awareness of technologies in the library.
- Most of the U.G.,P.G. and Ph.D. students use of assistive technologies in the library
- Majourity of the Students are used Most common Information sources available in the library as mentioned in table-9.
- Most of the Students are used Internet Information sources in the library.
- Mostly the Ph.D. Students rate as strongly agree and mostly the P.G. Students rate as neutral, while U.G. Students rate as agree with the Internet Resources provided by the library.

Suggestions

- To give proper computer, software and tools available in the mobile phone to access internet training should be given to visually impaired students, which reduces the barriers in accessing information.
- The Library staff should take initiative in providing awareness about assistive technologies and to develop confidence in using them.

- Internet facility should improved by adding more number of computers.
- Before providing the internet resources ,it is essential to maintained all the library facilities. Library building also plays an important role in extending efficient services.
- Students should be given motivation by conducting awareness programmer in using internet and electronic resources which help to increase their confidence level in using these resources.
- In order to remove the ignorance, the library must come forward to understand the actual needs and exact area of internet of visually impaired students.
- The study can be extended to all the faculties and all the department of the university.

Conclusion

Internet Resources provide equal status of sighted and no sighted students. Among the respondents, a good number of students are aware of assistive technologies and internet resources, even through many of them are not using them. the mostly used assistive technology is screen reader. Even through most of the benefit of ICT, due to unavailability of resources the result of the study would be helpful in getting a good suggestion of the students awareness level of internet resources and assistive technologies.

Today, various types of assistive devices are available to help the visually impaired to use mobile phones, but number of students who participated in the study is aware of mobile technologies. In Maulana Azad Library Provide each student have Angel Pro, a mobile like apparatus along with memory chips of 32 GB for recording the classroom lectures and listening to the already recorded books are issued to all the students for the entire duration of the course. Many students have showed excellence result in education. It is revealed that number of students was confident enough about their ability in using internet resources and assistive technologies.

REFERENCES

- Babalola, Yemisi, T. 2011. Library and information services to the visually impaired-the role of academic libraries. *canadian social science*.vol.7no.1., p140-147.
- Brazier, H. 2007. The role and activities of IFLA Library for the blind section. *Library Trends*, 55(4), 864-878.Retrieved Nov. 5'2014, from: http://muse.jnu.edu/journals/Library-trends/vol.55.4_brazicr02.html.
- Eskay, M. and Chima, J.N 2013. Library and information service delivery for the blind and the physically challenged in University of Nigeria Nsukka Library. *European Academic Research*, 1(5), 625-630.
- Lucky, A. T. and Acheba, N. E. E. 2013. Information service delivery to the visually impaired: a case study to hope for blind foundation wusasa, zaria (Nigeria). *Research Journal of Information Technology*.5(1):p18-23.
- Pufflen, C. V. ICT-related skills and needs of blind and visually impaired people. *SIGACCESS Newsletter*, 2009, p44-48.
- Singh,K.P. and Moirangthem, Easter. Are Indian libraries VIP-friendly?
- Soman,V. S. Midhula and Sudhier, K. G. Pillai. Awareness and use of internet Resources by visually-Impaired students in Kerala: case study of Thiruvananthapuram District. *DESIDOC Journal of Library and Information Technology*. March2015, Vol.35, No.2, p100-105.
- Tesendic, Danijela and Krsticev, Danijela Boberic. Web Service for connecting visually impaired People with Libraries. *ASLIB journal of Information Management*, 2014.vol.67 Issue:2, p230-243.
