



USAGE OF INTERNET RESOURCE BY VISUALLY IMPAIRED STUDENTS

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Abstract

visually impaired students engaged in higher studies were the same as those of other students. In this regard, it is imperative that universities or institutions develop the proper infrastructure to support these students in accessing the required information, by providing adaptive technology and information retrieval skills, so that they can access the required information easily. digital usage accessibility for visually impaired students. They opined that visually impaired students were very keen to take benefit from digital library services, but due to the unavailability of required devices and applications, they needed human support. Precisely, people with disabilities were generally considered a medium-risk population as they were more vulnerable in various ways. There is no significance difference between the usage of internet resource by visually impaired students in terms of Location in total.

Keywords: Internet Resource, Visually Impaired Students. Etc.

Introduction

The importance of technological penetration and dependence in relation to educational advancements cannot be denied (Aldahdouh, Nokelainen, & Korhonen, 2020; Nandez & Borrego, 2014), and it equally applies to both the typical community and the special community through social connections such as email, social media, and chatting (Ahmed & Naveed, 2020; Mason, 2020). The use of information and communication technologies (ICTs) has increased significantly among students at various levels of education (Doiron, 2011; Hitchcock & Stahl, 2003; Kumar & Sanaman, 2013).

Access of Internet Based Resources

During the last two decades, technology and the internet have been regarded as major sources of access to digital information resources, raising concerns about the internet's accessibility and availability to visually impaired students (Ekwelem, 2013). Hewett, Torgerson, and Douglas (2014) described how visually impaired students were well aware of the importance of internet usage in the contemporary age. Mikre (2011) revealed that the internet is acting as a catalyst for change for visually impaired students because ICT tools enable them to access required information efficiently. Haneefa and Syamili (2014) examined the use of the internet by visually impaired students at Calicut University and found that they were mostly computer literate and smartphone users. However, they were not well trained to utilise the internet to cater to their academic, research, and learning purposes. Pradhan and Samanta (2018) recommended that institutions increase their funding for facilitating SVI through assistive technologies as well as train the staff for proper implementation of the braille system and assistive technologies for SVI. Norah and Tony (2009) explained that the information needs of visually impaired students engaged in higher studies were the same as those of other students. In this regard, it is imperative that universities or institutions develop the proper infrastructure to support these students in accessing the required information, by providing adaptive technology and information retrieval skills, so that they can access the required information easily.

Role of Libraries Facilitating the Students with Vision Impairment

The importance of libraries in students' lives cannot be ignored, as they are both a source of information dissemination and a place of knowledge and information creation. This shows the library as a platform for the educational, cultural, and social establishment (Khasseh, Yamchi, Azimi, Ghazizadeh, & Alipour, 2020). Over the past decade, libraries have begun to evaluate their services to meet the needs of users with disabilities. Nevertheless, in the contemporary period, equal access to libraries is not available in many countries (Demirelli & Tuna, 2017). Liu, Bielefield, and McKay (2019) revealed that the majority of American websites have programming flaws, i.e. document language errors, missing alternative text, missing form labels, linked images with missing alternative text, HTML coding for websites, problems navigating the website, empty table headers, etc., which curtail the visually impaired students' access to these websites. Kwafoa (2019) explored library accessibility for the visually impaired students of Ghana and revealed that most of the library facilities were not user friendly. In another study, Osman and Kwafoa (2020) argued that information gathering and collection is not the challenge for Ghana's SVI. Instead, the real challenge is the use of that information through proper accessibility and equality. Khasseh et al. (2020) examined public services offered to disabled students in East Azerbaijan province in Iran and revealed that most of the libraries lacked budget and policies, information resources, and facilities to serve the physically challenged students. Overall, the findings indicate that libraries need to follow the web content accessibility guidelines (WCAG) developed by the W3C (World Wide Web Consortium). These guidelines make web content more accessible to people with vision impairment.

Challenges for Students with Vision Impairment

There were a lot of challenges in accessing and using digital information resources through the internet, especially in the context of the provision of assistive technologies to visually impaired students. The major challenges include unfamiliar and untrained teachers towards the use of assistive technologies (Abner & Lahm, 2002; Kapperman, Sticken, & Heinze, 2002), and a lack of knowledge confidence in using assistive technologies (Zhou et al., 2012). The SVI was facing a lot of structural and behavioural issues, like non-provision of tactile warning systems, unavailability of lifts, and improper behaviour of teachers and staff members. The SVI do not have access to their required devices, tools, and applications. They were facing accessibility issues due to the non-availability of materials in needed formats (Fatima, Bashir, Malik, & Safder, 2014; Omede, 2015). Despite the fact that much research has been dedicated to investigating SVI information seeking and information needs (Awais & Ameen, 2015). However, researchers have paid little attention to the exploration of access and use among SVI, particularly in the local context. there were only a few studies that addressed this topic. Awais and Ameen (2015) revealed that visually impaired students in Lahore mainly relied on their family members and teachers. In addition, neither the school nor the college libraries facilitate physically challenged students in accessing information. The students were unable to access the internet availability due to untrained staff and/or lack of readable material formats. Zia and Fatima (2011) identified digital usage accessibility for visually impaired students. They opined that visually impaired students were very keen to take benefit from digital library services, but due to the unavailability of required devices and applications, they needed human support. Precisely, people with disabilities were generally considered a medium-risk population as they were more vulnerable in various ways.

OBJECTIVES OF THE STUDIES

1. To find out the level of usage of internet resource by visually impaired students.
2. To find out the level of usage of internet resource by visually impaired students in terms of gender.
3. To find out the level of usage of internet resource by visually impaired students in terms of Location.

HYPOTHESIS OF THE STUDY

1. There is no significance difference between the usage of internet resource by visually impaired students.
2. There is no significance difference between the usage of internet resource by visually impaired students in terms of gender.
3. There is no significance difference between the usage of internet resource by visually impaired students in terms of Location.

RESEARCH METHODOLOGY

The present study is conducted on one sample for the visually impaired users of the library. The questionnaires were distributed through simple random sampling in May 2022 via Google docs. The

questionnaires were distributed to users with a visually impaired Library. The data collected through Google docs questionnaires were organized and tabulated by using SPSS statistical method and percentages.

ANALYSIS OF DATA

NULL HYPOTHESIS 1

There is no significance difference between the usage of internet resource by visually impaired students in terms of gender.

TABLE 1

DIFFERENCE BETWEEN THE USAGE OF INTERNET RESOURCE BY VISUALLY IMPAIRED STUDENTS IN TERMS OF GENDER

Dimensions of Internet Resource	Girls (N=25)		Boys (N=275)		Calculated 't' Value	Remarks
	Mean	S.D	Mean	S.D		
Social Media	17.52	1.610	17.52	1.913	0.011	NS
Mail	18.44	3.216	19.37	2.565	1.699	NS
Browsing	24.16	2.230	24.39	2.841	0.487	NS
Total	137.36	12.127	137.15	12.143	0.082	NS

(At 5% level of significance the table value of 't' is 1.96)

It is clear from the above table.1 that There is no significance difference between the usage of internet resource by visually impaired students in terms of gender in total.

NULL HYPOTHESIS 2

There is no significance difference between the usage of internet resource by visually impaired students in terms of Location

TABLE 2

DIFFERENCE BETWEEN THE USAGE OF INTERNET RESOURCE BY VISUALLY IMPAIRED STUDENTS IN TERMS OF LOCATION

Dimensions of Internet Resource	Urban (N=165)		Rural (N=135)		Calculated 't' Value	Remarks
	Mean	S.D	Mean	S.D		
Social Media	17.54	1.799	17.50	1.996	0.163	NS
Mail	18.98	2.534	19.67	2.707	2.283	S
Browsing	24.18	2.850	24.61	2.713	1.315	NS
Total	135.76	11.626	138.89	12.530	2.237	S

(At 5% level of significance the table value of 't' is 1.96)

It is clear from the above table.2 There is no significance difference between the usage of internet resource by visually impaired students in terms of Location in total.

Results and Findings

It is clear from the above table.1 that There is no significance difference between the usage of internet resource by visually impaired students in terms of gender in total.

It is clear from the above table.2 There is no significance difference between the usage of internet resource by visually impaired students in terms of Location in total.

Conclusion

The aims of the study were to investigate the digital information needs of students with vision impairment, obstacles to reaching their needs, and the role of libraries to support and align their services accordingly. The findings revealed that the majority of SVI were using Wi-Fi and the internet on a daily basis, and some of them acclaimed 4–5 hours daily, mainly with their cell phones and laptops, to access and use the internet and digital information resources. The major purposes of using these resources include professional and academic work, entertainment, research and learning, and reading habits, respectively.

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