

Explore the Challenges that Visually Impaired Students Face when Accessing Education at College Level

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Abstract: *This study explores the challenges faced by visually impaired college students in Rawalpindi, aiming to draw attention from relevant authorities and the public. Utilizing a descriptive, qualitative approach grounded in Interpretivism, the research involved interviews with 20 visually impaired students from 24 colleges. The findings reveal significant barriers to accessing college education for these students. Recommendations include increased attention and action from government bodies, college administrations, and parents to address and resolve these issues.*

Keywords: Visually Impaired, Challenges, Inadequacy, Support, Resolution

Introduction

Supporting visually impaired college students is a commendable action, as they face unique challenges but can succeed with the right resources. Visual impairments vary widely, from low vision to total blindness. Legal blindness is defined federally and affects eligibility for services. Understanding each student's unique visual needs is crucial for accessibility (All about Vision. n.d.)

The transition to college involves significant adjustments for visually impaired students. Unlike K-12 education, college does not automatically provide an Individualized Education Plan (IEP). Instead, students work with vocational rehabilitation counselors or disability specialists to create personalized plans that address accommodations, assistive technologies, and future employment needs. (Best Colleges, 2023)

Visually impaired students face unique difficulties in college, such as adjusting to their environment, accessing materials, navigating their surroundings, obtaining resources, and participating in activities (Fraser Eye, 2022). Inclusive education is crucial for visually impaired students. It creates a sense of belonging, provides necessary accommodations, and fosters diversity (Best Colleges, 2023; Brydges, M., & Mkandawire, P. 2017; Fraser Eye, 2022)

Challenges in inclusive classrooms include lack of accessibility, inadequate learning resources, and difficulties participating in events. Many college campuses and classrooms lack essential amenities for visually impaired students, such as braille signage, tactile maps, and accessible technology. (Brydges, M., & Mkandawire, P. 2017) This can make it difficult for these students to navigate their physical surroundings and access crucial information. Helping this postsecondary demographic is commendable for it has a unique set of hurdles but they can flourish with the right tools. Difficulty in seeing can mean

anything from low vision to total blindness, and since the determination of legal blindness is a federal standard, it generally plays into whether your services are covered or not. Identifying each of your students' unique visual needs is crucial for accessibility.

It's all about going from high school to college, which is a huge transition for visually impaired students. In contrast to K-12 schooling, a college does not offer an Individualized Schooling Plan (IEP) for you. Rather than specific IEPs, students work jointly with vocational rehabilitation counselors or disability specialists to create individualized plans that address accommodations, assistive technologies, and future employment needs.

Visual impairment presents distinct experiences for college students including acclimation to their surroundings, earthling materials, wayfaring urban places and routes, getting supplies and engagement in assignments. Inclusive education for these students is important as it promotes belonging, accessibility, and diversity.

Accessibility issues, poor learning resources, and trouble engaging in events are just a few of the problems with inclusion classes. Outdoor maps, accessible technology, braille signs — the necessary amenities for visually impaired students are often scarce on many college campuses and in classrooms. That can get in the way of navigating physical environments and finding vital information. In addition to this, obtaining access to learning resources could threaten their academic journey and the success of their overall life.

The research sample examines the experience of college students who have visual impairment in inclusive classrooms. However, past studies show how they are faced with access and training challenges, as well as various deprivation in attain abilities. Such challenges, in turn, emphasize the necessity of targeted interventions and improvements³. An overview of existing academic approaches related to inclusive education for students with blindness or visual impairment, to determine where they are limited or ineffective is an important step towards targeted interventions.

The study will identify the gap in the body of knowledge and this provides information based on prevailing studies and academia. It seeks to address the problems of visually challenged students which in return would generate public awareness and suggest best practices in order to improve their educational performance.

Objective

The purpose of this study is to explore the unique situations that visually impaired students face in higher education in Pakistan. This involves exploring obstacles related to access, assistive technology resources, inclusive teaching practices, and college-level support networks.

Research Question

What barriers do visually impaired students face in accessing higher education in Pakistan and how does that impact their career experiences?

Research Significance

The study is significant not only to the national education system but also in terms of finding inclusive education for visually impaired university students of Pakistan. By identifying the barriers faced by these students, this research seeks to inform policy and practice in order to foster inclusivity and improve academic outcomes for them. Inclusive education is not just about a social right, but also an economic gain for people and society. As a result, exclusion of impaired students produces spiraling social and economic costs by inhibiting societal and economic empowerment (Zwane & Mallei, 2018).

Scope of the Research

The current research based on the challenges experience by visually impaired college students seeking

higher education in courses which include other disabled and nondisabled students in Pakistan. Its purpose is to collect specific data on the individual barriers faced by these students in relation to accessing learning materials, moving through their environment and contributing to classroom discussions. This study attempts to explore the extent of implementation for visually impaired students and gaps in response by educational institutions. This would help in filling the gaps on inclusive education literature and improve educational policies/practices to strengthen the Pakistani context (Zwane & Mallei, 2018).

Research Gap and Contribution

The current study addresses an important research gap by examining the challenges faced by visually impaired students in inclusive classrooms in Pakistan. Based on limited modern research in this field. The purpose of this article is to provide a comprehensive analysis of the specific barriers these students face, such as financial barriers. Public Stigma barriers to access Problems with acceptance from co-workers and learning difficulties Identifying these challenges This study attempts to propose practices that can increase coverage and ensure equal educational opportunities for students with visual impairments. These findings are intended to inform educators, policy maker and stakeholders about the steps needed to create a more supportive and accessible educational environment. In the end, this research aims to support broader efforts to promote inclusiveness and foster an academic environment where students with visual impairments can thrive and reach their full potential.

De-limitations of the Study

This study only discusses the problem of visually impaired concentration and challenges in inclusive classes at public institutions in Rawalpindi city. This glimpse into the experiences of some visually impaired college students is valuable, but as highlighted by the authors, these findings may not generalize across geographical locations and institutional types. Hence, the present study aims at only public sector schools students in Rawalpindi as it seems to be more relevant for the specific setting (Mutanga, 2017).

Literature Review

College students with visual impairment in Pakistan encounter numerous barriers that impact their educational achievement and quality of life. They often have access to resources like assistive devices and specialized learning materials. They are socially isolated and often have low self-esteem due to the public stigma regarding visual impairment as well as society's misconceptions about the condition which makes it difficult for them to fully engage within the academic community as well as socially. In addition to all of this, they face additional learning challenges due to accessibility issues such as insufficient resources and the lack of accessible materials for study purposes. Furthermore, many teachers are not adequately trained to work with students that have visual impairment, causing a lack of sufficient and adequate educational support. Also, issues related to accepting peers also have a lot of impact as these students have the tendency to have difficulty in forming relationships with their sighted peers that in most cases adversely affect their emotional and social development. Altogether, these challenges create a unique setting that has an adverse effect on academic performance and the overall wellness of college students with visual impairment in Pakistan.

The primary issue is the lack of trained teachers which has a negative effect on the education system. This shortage limits learning opportunities, has proportionate academic inequalities, restricts the research and innovative possibilities and student potential is wasted. The absence of trained teachers results into hindrances to learning, allocation of unsuitable learning conditions, congestion in lecture halls, emotional stresses and physical imbalances (Butler et al., 2017). Students with visual impairment do not attain personalization, there is no access to teaching aids and materials, there are obstacles in the application of technology, and there is an unreasonable load on support staff and resources as well as an uneven distribution of teachers in various regions. These factors in aggregate interfere with their

learning experience (Mutanga, 2017).

The scarcity of textbooks and other learning resources hampers the academic achievement to a great extent. The unavailability of adequate resources and additional textbook materials aggravates this situation making these students lag behind their colleagues. This problem is made worse by the lack of enough braille transcription services so that when such materials are available, they are typically in an unusable form for blind learners. Furthermore, students who do not have prompt access to instructional materials and seemingly important resources are left in an advantageous position. Barriers like these perpetuate inequality in learning opportunities and therefore visually impaired learners do not achieve their full academic potential in school (Zwane & Mallei, 2018).

The academic and social experiences of students with visual impairments are more complex than limited access to audio descriptions for visual media. This can make them feel isolated and cut off from friends. Adaptive technology challenges such as screen readers Image enlargement software and braille display Exacerbating these problems, inadequate institutional accountability and support services play a key role in these problems. This is because schools and universities often lack the resources or commitment to provide the necessary accommodations. This lack of support can lead to perceptions of neglect and marginalization among students with visual impairments. This affects their academic performance and overall well-being (Siddiqua et al., 2022).

The lack of accessibility training for college staff and faculty contributes significantly to the lack of inclusive teaching methods. This makes students with disabilities feel excluded and unsupported. This training gap means educators are often ill-equipped to effectively address diverse learning needs. This leads to an inclusive educational environment. Additionally, the lack of funding for accessibility services creates additional financial barriers. This makes it difficult for institutions to provide necessary resources and support. These economic barriers can severely impact the educational outcomes of students with disabilities from the loss of scare and the cycle is created (Butler et al. 2017). Visually impaired students in Pakistan face multiple barriers to accessing inclusive educational resources. This is a major obstacle to their academic success. The main challenges include limited availability of optimized resources. Limited access to assistive technology and relying heavily on others for help. According to Siddiqua and colleagues (2022), a lack of comprehensive access to resources negatively impacts academic performance.

To alleviate these problems Educational institutions should focus on developing inclusive curricula that include accessible media such as large print braille and audio formats. In addition, investing in assistive technology such as screen readers and touch-based assistance can greatly improve access to resources. Visually impaired students in Pakistan face many barriers that significantly impact their academic and social experiences. These challenges include financial barriers; Public Stigma barriers to access and issues related to peer acceptance. All of which affects their learning and social interactions (Siddiqua et al., 2022). The shortage of qualified teachers further exacerbates these problems. As a result, the quality of education has decreased. Limited learning opportunities and academic inequality (Butler et al., 2017). In addition, there is a lack of adequate educational resources such as textbooks and accessible learning materials. They are also a greater barrier to academic progress than inadequate assistive technologies such as screen readers and braille displays (Zwane & Mallei, 2018).

Communication barriers and limited access to assistive technology prevent students with visual impairments from interacting with their peers. Participating in group discussions and participation in extracurricular activities. This often results in feelings of alienation and dissatisfaction. This is because they are unable to integrate into the social structure of college community (Mutanga, 2017). Additionally, mobility challenges such as difficulty navigating campus and accessing educational facilities As a result, their independence and autonomy are reduced. The presence of social stigma and discrimination increases feelings of social isolation without support from friends and teachers. It is difficult for them to succeed, in academics and society (Siddiqua et al., 2022).

Bullying and harassment significantly worsen the challenges faced by students with visual impairments. It has serious negative effects on mental health and overall well-being. These hostile behaviors result in increased feelings of stress, anxiety, and worthlessness. This makes it more difficult for these students to succeed. Academic Settings and Social Interactions to effectively deal with these various challenges. This limits personal and growth opportunities. Separate them from their friends and reduce the opportunity to develop necessary life skills. It is important for educational institutions and society to work together to create an inclusive and supportive environment. It has implemented a comprehensive anti-bullying policy, improving accessibility to extracurricular activities, and ensuring reliable transportation options. By fostering a culture of acceptance and support, we can help visually impaired college students in Pakistan achieve their full potential and lead fulfilling lives (Butler et al., 2017; Mutanga, 2017; Zwane & Mallei, 2018).

Methodology

This study used both descriptive and qualitative methods. Interpretive and inductive research philosophies were used to achieve the objectives of the study.

Population

The study collected data from a large number of students at 24 colleges, including both men's and women's institutions. To ensure that there is a comprehensive understanding of the challenges that students with visual impairments face in different educational environments. It provides a diverse and representative sample. The total sample size consisted of 144 participants, which resulted in a robust statistical analysis and meaningful insights into the experiences and needs of visually impaired students in Pakistan. This comprehensive approach enhances the reliability and generalizability of the study results. This facilitates a more nuanced understanding of barriers and facilitators of inclusive education in the region.

Sample Size

Twenty visually impaired students from 24 selected colleges were sampled using random sampling technique. This was to ensure that the sample was comprehensive and representative of the entire visually impaired student population in the area. This study includes both male and female institutions. Its purpose is to capture the diverse experiences and challenges faced by these students. The detailed and robust analysis provides valuable insights into the educational needs and barriers of visually impaired students in Pakistan. This method increases the reliability and generalizability of the findings. This results in a more complete understanding of inclusive education in the country.

Research Instrument

Interviews were used as the primary research tool. The data collection process involves several steps to ensure the data is comprehensive and accurate. Informed consent was obtained from participants to ensure they understood the purpose and rights of the study. Data were collected through interviews with visually impaired students in a relaxed environment to encourage open expression. Direct vision and comprehensive classroom observations with questionnaires were distributed to collect quantitative data on student experiences. Focusing on the availability of assistive devices and support from teachers and peers throughout the process. Ethical considerations including privacy, confidentiality and anonymity prioritized.

Data Analysis

This study used thematic analysis to reveal patterns and themes within the data collected. Pilot testing was conducted to ensure the effectiveness of the research tools and procedures. It identifies and resolves potential data collection issues. Standardization of the research instrument was used to maintain reliability along with checking inter-rater reliability and compliance with ethical standards to guarantee

accuracy. The whole population sampling technique was used, with data collected from 24 colleges across the Rawalpindi region. Ethical considerations included obtaining informed consent, ensuring confidentiality and anonymity, and maintaining a respectful and non-judgmental approach throughout the research process.

Thematic analysis is based on following themes:

1. Shortage of Trained Teachers and Supportive Staff
2. Inadequate Educational Resources
3. Social Barriers
4. Mobility Challenges
5. Lack of Support
6. Bullying and Harassment

Each theme further consists of different descriptive statements used in the questionnaire of the Interview to get in-depth data from the visually impaired students regarding each theme.

Table 1

Shortage of Trained Teachers and Supportive Staff

Description Codes	f
Shortage of Teachers	13
Shortage of Supportive Staff	11
Inadequate Training for Teachers	5
Non-adoption of up-to-date teaching methodology due to lack of training	3
Lack of Adequate Learning Material	17

Results

Table 1 highlights several challenges faced by visually impaired college students. The majority of respondents identified a shortage of teachers (n=13) and supportive staff (n=11) as major issues. Additionally, inadequate training of teachers to educate impaired students (n=5) was noted, leading to the adoption of outdated teaching methodologies, which hinder students' comprehension of learning material (n=3). One respondent emphasized the uneven distribution of teachers across colleges, suggesting that the government should ensure the provision of trained teachers specialized in teaching impaired students and offer specialized training to existing teachers.

Table 2

Inadequate Educational Resources

Description Codes	f
Inadequate Braille Transcription Services	3
Audio Descriptions for Visual Media Are Inadequate	2
Lack of Individualized Instruction	10

Lack of Academic Scholarships	6
Access to Adaptive Technology is Limited	2
Neglected from Social Part	2
Barriers in engaging in extracurricular activities	5

Results

Table 2 reveals that respondents agree on several educational challenges faced by visually impaired students in Pakistani colleges. The most significant issue is the lack of adequate learning material (n=17). Additionally, there is a shortage of Braille transcription services (n=3) and audio description devices for visual media (n=2). Other challenges include the lack of individualized instruction (n=10), insufficient academic scholarships (n=6), and limited access to adaptive technology (n=2). One respondent highlighted that impaired students lag behind their peers due to inadequate learning materials and lack of proper technological assistance in colleges.

Table 3

Social Barriers

Description Codes	f
Neglected from Social Part	2
Barriers in engaging in extracurricular activities	2
Barriers in joining Social events	5
Difficulty in Building Relationship with Peers	3
Obstacles in Communication	2

Results

Table 3 indicates that social isolation and other social barriers are significant challenges for visually impaired students in educational institutions. Some respondents feel neglected in social interactions (n=5). Additionally, there are barriers to participating in co-curricular activities (n=2), social events (n=3), and group activities (n=5). Communication obstacles (n=2) and difficulties in participating in organizational activities (n=2) were also noted. One participant expressed feeling like an outsider and highlighted the lack of equal opportunities to engage in co-curricular activities.

Table 4

Mobility Challenges

Description Codes	f
Obstacle in Taking Part in Group Activities	5
Difficulty participating in organizational activities	2
Difficulty in moving in campus	4
Difficulty in getting access to academic resources	7
Difficulty in approaching out-campus activities	1
Difficulty in traveling to reach educational institutions	13

Results

Table 4 indicates that mobility and transport issues significantly challenge visually impaired college students. Respondents highlighted that these students struggle to navigate campuses due to the lack of human support and transportation facilities (n=4). they also face difficulties accessing academic resources (n=7) and participating in off-campus activities (n=1). the most significant challenge is reaching educational institutions and securing facilitated travel (n=13). Additionally, the absence of audio devices in colleges exacerbates these difficulties (n=2). One respondent emphasized the need for facilitated transportation and government support to alleviate these challenges.

Table 5

Lack of Support

Description Codes	f
Lack of audio devices installed in colleges to get help	2
Lack of Support from Parents	2
Lack of Support and Guidance from Teachers	4
Lack of Support from Peers and Friends	3
Lack of Support from Administration	6

Results

Table 5 highlights the lack of support for visually impaired students from various sources. Some respondents believe that parents do not provide adequate support for their education (n=2). Additionally, there is a perceived lack of proper support and guidance from teachers (n=4) and peers (n=3), which creates challenges in the classroom. The college administration is also seen as failing to provide necessary assistance, guidance, and support (n=6). One participant emphasized the need for teachers and administration to understand the specialized attention required by impaired students to create a more relaxed and supportive environment.

Table 6

Bullying and Harassment

Description Codes	F
Bullying by College-mates	4
Hostile and Unwelcoming environment in Colleges	2
Face Verbal Abuse	2
Physical intimidation	1
Cyber-bullying	1
Insulting Remarks	9

Results

Table 6 reveals that visually impaired students sometimes face harassment and bullying in educational institutions. The results from Table 6 show that students with visual impairments sometimes face bullying and harassment in educational institutions, especially, four respondents reported being bullied by their college peers. While two respondents described the environment of colleges in Pakistan as unwelcoming and hostile, two respondents also said they experienced verbal abuse. One respondent faced a physical threat. And another respondent faced cyber-shaming. These negative experiences have a huge impact on students' confidence in their studies. Nine respondents noted derogatory comments from teachers, colleagues and other members in the college community, it has a huge impact on their

self-esteem.

Discussion

Visually impaired students in Pakistan face significant barriers to accessing educational materials such as braille and accessible digital information. These barriers hinder academic progress and the overall college experience. A lack of accessible resources often forces these students to rely on others for help. This leads to feelings of dependency and frustration (Laurens, 2021).

Lack of assistive technology Including a screen reader Text to speech software and image enlargement equipment. This is a major challenge for students with visual impairments. The high cost of these technologies and limited availability limits students' access to digital resources. This makes it difficult for them to fully participate in learning (Reddy et al., 2020) without adequate assistive technology. Visually impaired students are at a significant disadvantage. Not having access to the same information and opportunities as their visually impaired peers.

Inadequate infrastructure, such as roads and inaccessible amenities. It will severely limit the movement of visually impaired students on campus. This lack of access affects participation in academic and extracurricular activities. A shortage of assistive devices and mobility aids further exacerbates these challenges. As a result, it becomes more difficult for students to manage their college environment (Agesa, 2014). Improving campus infrastructure to be more inclusive Supporting the mobility and independence of students with visual impairments is important digital knowledge Digital literacy has emerged as a useful and innovative approach for students with visual impairments. It increases academic opportunities similar to their sighted peers (IDEA, 1990). However, it is challenging to meet the demand for digital literacy due to lack of awareness and unequal access to the Internet.

This makes the ability to use digital technology effectively more complicated (Lee, Fanguy, Bligh, & Lu, 2022). Ensuring that students with visual impairments have the skills and resources needed to navigate the digital world is critical. It is important to their academic success. Inclusive teaching practices Inclusive teaching often has gaps. This requires teaching strategies tailored to the unique needs of students with visual impairments. By adopting an inclusive teaching approach, professional development and training for educators is essential in implementing effective inclusive teaching (Hougang, 1999). Educators can create a more supportive learning environment which meets the diverse needs of all students including people with visual impairments. The shift from face-to-face to online teaching during the pandemic has further intensified these difficulties for visually impaired students (Lee, Fanguy, Bligh, & Lu, 2022).

There is often a gap in inclusive teaching practices, with a need for more customized instructional strategies to meet the specific needs of visually impaired students, and professional development and training for educators are essential to effectively implement inclusive pedagogy. Social inclusion is a critical aspect of the college experience for visually impaired students, and comprehensive support systems, including peer engagement, mentoring programs, and disability awareness campaigns, are necessary to foster a welcoming and inclusive environment. Addressing these issues is crucial for ensuring equitable access to education for visually impaired students in Pakistan.

At Kyambogo University, while the staff of special needs education has ramps and can be reached through wheelchairs, many senate buildings remain inaccessible to people with disabilities. The government sponsorship scheme supports 4,000 students annually at the university level, including 64 students with special needs such as physical handicaps and visual impairments. However, visually impaired students face numerous challenges in higher education. Hodges and Keller (1999) found that these students encounter significant issues in transport and forming social relationships with peers. Hougang (1999) identified additional challenges, including the absence of counseling services, a shortage of Braille books, a lack of visual readers, difficulties adjusting to university life, neglect of their special needs by teachers, transport issues, and problems with exam handling. (Wandera, 76,

2017).

The integration of ICT has revolutionized literacy, broadening learning opportunities and enhancing participation and lifelong learning. The use of digital devices for literacy has shifted education into a new paradigm, making it more creative and interactive, thereby improving the efficacy of both students and teachers (Reddy, Sharma, & Chaudhary, 2021; Ahmad, Hashmi, Shehzadi, & Nawaz, 2021; Chu, Reynolds, Tavares, Notari, & Lee, 2021). This transition from traditional to virtual learning has fundamentally changed the roles of both teachers and learners.

Conclusions

Visually impaired students in Pakistan face many barriers to higher education, such as inadequate learning materials. Assistive technology physical access Participatory learning methods social integration economic challenges and job opportunities Lack of braille and digital resources limits their learning experience. Limited access to essential devices, such as screen readers. Text-to-speech software with insufficient training. It is an obstacle to participation1 Inaccessible university infrastructure also limits mobility and participation in academic and extracurricular activities. It is important to develop policies to promote an inclusive educational environment for students with visual impairments and support their rights. Partnerships with businesses and support organizations can meet their unique needs in a comprehensive way. Universities should adjust their teaching methods and provide customized approaches to meet the specific skills and needs of these students. Effective training for educators is essential to implementing these strategies. Additionally, universities should institute policies that support the social and emotional well-being of students with visual impairments. By providing counseling services and dealing with stigma and provide accessible digital communication and information systems. Improving job opportunities for visually impaired students through recruitment and career counseling is also important. Addressing these diverse challenges requires institutional collaboration. Government agencies Supporting organization and the wider community.

Recommendations

From the research results, the following recommendations are made.

1. Develop a national framework for audio-braille resources to ensure that assistive devices are compatible with digital learning systems.
2. Provide assistive technology to economically disadvantaged students and create facilities with trained staff on campus.
3. Conduct an accessibility assessment. Create accessible routes and ensure that new construction meets accessibility guidelines.
4. Integrate technology to adopt a comprehensive learning approach and present course content in a variety of formats.
5. Create a mentoring program. Organize a disability awareness campaign and promote student support organizations for students with visual impairments.

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