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Accessibilities and Challenges in Curriculum and Instructional Activities for Students with Visually Impairments in Gilgit Baltistan

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### Abstract

*The study aims to find the challenges and accessibility of curriculum and instructional activities of visually impaired students in Gilgit Baltistan. It adopted the qualitative approach and included the teachers of students with visual impairments from the Public Special Education Complex. Purposive sampling was used where six teachers were chosen from separate classes. Qualitative data was analyzed using thematic analysis. The major challenges were accessing materials, teaching Braille, and catering to the multiple learning needs of the students. However, the determination of teachers showed a high sense in changing the teaching practices so that the students who had visual impairment access the curriculum. It was found that the use of multi-sensory approaches that incorporate, for instance, the use of auditory, tactile, and kinesthetic features in a lesson to enhance learning can help in tackling the challenges which could be achieved through assistive technologies, hands-on activities, and interactive learning materials.*

**Keywords:** Accessibilities, Challenges, Curriculum and Instructional Activities, Students with Visually Impairments

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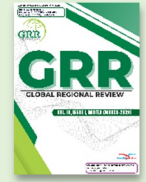
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### Title

#### Accessibilities and Challenges in Curriculum and Instructional Activities for Students with Visually Impairments in Gilgit Baltistan

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### Abstract

*The study aims to find the challenges and accessibility of curriculum and instructional activities of visually impaired students in Gilgit Baltistan. It adopted the qualitative approach and included the teachers of students with visual impairments from the Public Special Education Complex. Purposive sampling was used where six teachers were chosen from separate classes. Qualitative data was analyzed using thematic analysis. The major challenges were accessing materials, teaching Braille, and catering to the multiple learning needs of the students. However, the determination of teachers showed a high sense in changing the teaching practices so that the students who had visual impairment access the curriculum. It was found that the use of multi-sensory approaches that incorporate, for instance, the use of auditory, tactile, and kinesthetic features in a lesson to enhance learning can help in tackling the challenges which could be achieved through assistive technologies, hands-on activities, and interactive learning materials.*

**Keywords:** [Accessibilities](#), [Challenges](#), [Curriculum and Instructional Activities](#), [Students with Visually Impairments](#)

### Introduction

The provision of quality education to such a category of students in Gilgit-Baltistan, the northern territory of Pakistan, is very difficult. Some of the impediments could be inadequacies in infrastructure, limited access to specialized teaching materials, and also scarcity in the number of trained teachers. Schools in mountainous regions with inclement climatic conditions are difficult to build

and maintain, and even the few that exist lack the appropriate facilities and resources for students with visual disabilities (Anwar & Sulman, 2012). The unavailability of Braille textbooks, tactile learning aids, and assistive technologies hampers academic achievement and even social integration. Lack of knowledge and understanding of the impairment of vision and its educational implications by the teachers, the parents, and the



community can make the students with visual impairment have a negative attitude towards them, minimal expectations of what the student can do, and little support for their educational needs. Other efforts towards promoting education in Gilgit-Baltistan include training teachers towards inclusive education, developing inclusive materials for teaching, and offering support services for those students who cannot see (Anwar & Sulman, 2012).

Students with visual impairments must have their needs met in the educational system. Understanding the current educational plan and informative techniques is urgent, and drawing motivation from globally accepted procedures can assist in creating viable educational programs and informative activities (Okonkwo, et al., 2017). Technology integration, teacher and educational staff development, community involvement, and advocacy are also important (Senjam et al., 2020). According to Ashraf (2019), the education of visually impaired Pakistani students has traditionally been managed in specialized schools or institutions designed specifically for children with disabilities, which has resulted in segregation and limited opportunities. The National Policy for Persons with Disabilities was implemented by the Pakistani government in 2002 in recognition of the global trend toward special education. However, there are still obstacles, such as geographical restrictions, inadequate teacher education, and societal attitudes toward disability.

### Objectives of the Study

The objectives of the study were, to:

1. Explore the perceptions of teachers regarding the challenges faced by visually impaired students in accessing the curriculum and instructional activities in Gilgit-Baltistan.
2. Investigate the strategies and interventions currently implemented to enhance accessibility for visually impaired students from the perspectives of teachers, in Gilgit-Baltistan.
3. Examine the training and support received by teachers to accommodate and teach visually impaired students in Gilgit-Baltistan.

### Research Questions

Based on the above objectives the following

research questions were developed:

1. What are the perceptions of teachers regarding the challenges faced by visually impaired students in accessing the curriculum and instructional activities in Gilgit-Baltistan?
2. What strategies and interventions are currently implemented to enhance accessibility for visually impaired students, and how effective are they perceived to be by teachers, in Gilgit-Baltistan?
3. What type of training and support have teachers received to accommodate and teach visually impaired students in Gilgit-Baltistan, and how adequate do they perceive it to be?

### Delimitation of the Study

The study was conducted in Gilgit-Baltistan only, even though there are other regions in Pakistan with visually impaired students who may be facing similar or different challenges. The study involves only teachers teaching the visually impaired. Other stakeholders, such as students, policymakers, school administrators, parents, and community members, may not be included in this study. The study focused on a specific educational level, such as primary or secondary school, excluding other educational levels. The study focused on government-run schools, excluding private schools or specialized institutions for visually impaired students.

### Literature Review

#### Introduction and Importance to Curriculum for Visually Impaired Students

Visually impaired students face unique challenges in school, as they perceive the world differently than those who can see fully. Schools need to provide a fair and good education for these students, focusing on their unique learning methods and perspectives (Haegele et al., 2023). A well-designed curriculum boosts confidence and self-belief and enables students to succeed in other areas of life. It ensures equal opportunities for visually impaired students, as they learn differently. (Miyauchi, 2020). A special curriculum provides the right tools to build their future, supporting and cheering them on as they explore the world uniquely. Therefore, it is essential to provide the right start in school for all students, regardless of their learning style (C. Baker, 1994).

## **Principles of Curriculum Development for Visually Impaired Students**

Curriculum Development for Visually Impaired Students should be guided by several key principles: Inclusive design: Adaptable to individual needs, considering strengths, abilities, and learning preferences (C. Baker, 1994); Accessible learning opportunities: Cover the same content, skills, and competencies as sighted peers, adapted for visually impaired students (Kana and Hagos, 2024); Social, emotional, and physical development: provide opportunities for social interaction, physical activity, and self-esteem development (Miyauchi, 2020); Multisensory approaches: Use auditory, tactile, and kinesthetic methods for information and concepts, not just visual methods (Kim, 2022).

## **Strategies for Making Curriculum Accessible to Visually Impaired Students**

Special education cannot function without its curriculum for visually impaired students. It ought to be created fairly and comprehensively, taking into account the particular requirements and capabilities of each student. By adapting learning materials, utilizing assistive technology, modifying teaching methods, and providing support services, it is possible to create a curriculum that is accessible to visually impaired students and enables them to realize their full potential (Westwood, 2018). Here are some strategies for making the curriculum accessible to visually impaired students: 1) provide materials in large print, braille, or audio format, or use tactile graphics and three-dimensional models; 2) Teach teachers how to use screen readers, braille displays, and talking calculators is one way to make use of assistive technology; 3) Give verbal depictions of visual substance, utilize involved exercises, and integrate hear-able and material improvements into illustrations; 4) Help visually impaired students fully participate in the curriculum by providing orientation and mobility training, braille instruction, and counselling (Argyropoulos and Gentle, 2019).

## **Existing Curriculum and Instructional Activities**

The Gilgit-Baltistan Education Strategy for 2015–2030 focuses on the development of inclusive curricula, the use of assistive devices, teacher

education, and special education in the region. However, textbooks and other instructional materials are primarily provided in print format, so the current curriculum is not specifically designed for visually impaired students (Ali and Hameed, 2015). Standard schools in the district frequently need assets and prepared staff to help outwardly debilitated students (Khan et al., 2020). Educational exercises are fundamentally intended for located understudies, making them less open to outwardly weakened students (Kamran & Bano, 2023). Moreover, educator preparation in Gilgit-Baltistan does exclude compulsory particular preparation for showing outwardly debilitated understudies, prompting a deficiency of instructors prepared in Braille (Iqal and Idrees, 2021). With a lack of accessible materials, trained teachers, and appropriate teaching methods, the region's existing curriculum and instructional activities are not sufficiently adapted to the needs of visually impaired students (Qazi & Javid, 2021).

In Gilgit-Baltistan, Pakistan, the current curriculum is standardized and developed by the federal or provincial government. It covers subjects like language expressions, math, sciences, social investigations, and Islamic examinations. However, it does not specifically accommodate visually impaired students and is only used in mainstream schools. There are only a few Braille, large print, or audio versions of the curriculum, which is mostly printed. Lectures, group discussions, and visual aids are used in mainstream schools to teach, while written tests, quizzes, and assignments are used for assessment (Clarke et al., 2020). According to (Aqila, 2003), students with visual impairments may have difficulty participating and engaging with these methods because they are not specifically adapted for them. The ongoing educational plan in Gilgit-Baltistan isn't planned with the particular necessities of outwardly weakened students as a top priority (F. Khan, 1998).

## **Current instructional activities for visually impaired students:**

In Gilgit-Baltistan, traditional classroom teaching methods like verbal explanations and visual aids are frequently unavailable (Laleka, 2019). These students also don't like group discussions, practical demonstrations, or visual aids. They may require Braille or assistive devices for written assignments

and assessments (Park et al., [2017](#)). Despite all efforts by teachers, these activities are not easily accessible to students. According to Bays & Crockett ([2017](#)), students' inability to fully participate in the learning process, as well as their academic progress and social integration, is hampered by a lack of appropriate teaching materials, assistive devices, and trained teachers.

The accessibility of Braille course books, gadgets like Braille records, white sticks, magnifiers, and screen perusing programming for outwardly debilitated students in Gilgit-Baltistan is restricted (Nilsen, [2016](#)). Particular educators are likewise hard to come by, despite their significance (Börnert-Ringleb et al., [2021](#)). E-books, audiobooks, and educational apps are also insufficient digital resources, and internet access is frequently unreliable. These assets are pivotal for comprehensive training for outwardly debilitated students, yet their need for Gilgit-Baltistan represents a huge test for their consideration in standard schools. According to Sulaimani & Bagadood ([2022](#)), effective inclusion of visually impaired students is significantly hampered by the absence of these resources.

### **Accessibility of Current Curriculum and Instructional Activities**

In Gilgit-Baltistan, students face many problems due to the cold weather and mountains which make it hard to get to schools, which often don't have ramps or special signs and tools that are basic requirements of these students. It's also hard for them to travel to school each day. (Aldehami, [2022](#)). Tools for learning, like Braille or big print books, are hard to find to learn many subjects. Teachers don't always know the best ways to teach or test these students. Because of these problems, it's tough for students who can't see well to be part of school life in this area. The lack of easy-to-use buildings, learning tools, and trained teachers makes everything harder for them (Librea-Carden et al., [2021](#)).

### **Assessment of Teacher Preparedness and Training**

Teacher readiness and training in Gilgit-Baltistan are key for the education success of students who cannot see well. To create a good learning space and

help with learning, teachers play an important role. According to Stalls et al., ([2018](#)), the term "preparation" means the knowledge, skills, and tools that teachers need to teach students who cannot see well. Some preparation examples include knowing the special needs of these students, as well as special teaching methods and tools that help them learn. Training before and during the job is important. Checking how ready and trained teachers help find strong points and areas to get better at, making it possible to create focused help and strategies to make the quality of education for students who cannot see well better (Adie and Wyatt-Smith, [2019](#)).

### **Lack of Specialized Training for Teachers**

Instructors' lacking preparation can prompt diminished scholarly execution, inclusivity, and higher dropout rates among students with extraordinary necessities, social foundations, or changing abilities to learn. Financial plan requirements, the absence of mindfulness, and normalized preparation programs add to this issue (Boardman, [2019](#)). Educational disparities may result from schools' lack of access to necessary resources and inadequate funding. Nearby local charges and politicization of instruction financial plans can likewise obstruct assignment (Auslander et al., 2023). Despite its significance for social and cognitive development, early education access is limited in many areas. Educational programs and instructing techniques that don't consider different societies can estrange minority students, cause them to feel as if they don't make any difference, and make it harder for them to scholastically succeed. To eliminate systemic barriers, policy modifications, additional funding, community involvement, and training programs are all required. The first step toward creating an equitable educational environment is to recognize and comprehend these obstacles (Zimback & Taminiski, 2023).

### **Strategies for Enhancing Accessibility**

Availability is urgent for guaranteeing equivalent admittance to data, administrations, and open doors for all people, no matter what their capacities. According to Shapiro et al. ([2003](#)), a variety of domains, including educational settings, physical environments, and digital platforms, can all benefit

from accessibility enhancement strategies. The initial step is recognizing the requirement for alteration, which can be founded on input from students, educators, and guardians, or benchmarking against public or global principles. An inclusivity review can help with deciding if the educational program deliberately or inadvertently avoids or minimizes any gathering of students. Improving student engagement, ensuring inclusivity, or incorporating newer educational technologies are all examples of clear goals that can be set for modification. Partner commitment is fundamental, and an educational plan survey board can give an all-encompassing perspective on important changes. Drafting adjustments might include refreshing substance, returning to appraisal strategies, consolidating innovation, and integrating separated guidance methods (Kisanga and Kisanga, [2020](#)). It's best to test the new curriculum in a few classes or grades to see how it works out in real time before making larger-scale changes. Preparing is fundamental for teachers to convey the adjusted educational program. The modified curriculum can be used in all relevant classes or grades once it is ready, and educators and students can access all necessary resources (Abie et al., [2023](#)).

### **Development of Specialized Instructional Methods**

Particular educational strategies are created by distinguishing holes in current showing rehearses or recognizing a particular gathering of students. A thorough needs assessment is conducted using tools like surveys, interviews, or classroom observations. Specific learning objectives are defined, aiming to achieve specific, measurable, achievable, relevant, and time-bound goals (Bolyard & Baker, [2021](#)). Research is crucial to identify existing strategies or techniques that can be adapted. The design process should be collaborative, involving educators, learners, curriculum designers, and subject matter experts. The iterative process involves designing a prototype, testing, gathering feedback, refining, and testing again (Bond, [2022](#)).

### **Evaluation of the Utilization of Technology in Gilgit-Baltistan Schools**

Technology in education is crucial for improving the quality and accessibility of learning, especially for visually impaired students. In Gilgit-Baltistan, the

role of technology in schools is vital due to its unique geographical, cultural, and economic context (Tuwaym & Berry, [2018](#)). Assistive technologies like screen readers, Braille note-takers, and voice recognition software can significantly improve the learning experience for visually impaired students. Access to online resources and digital textbooks is also dependent on the infrastructure, particularly internet connectivity. The educators who use these tools must be well-trained and comfortable with technology for them to be effective (Fatima et al., [2014](#)). Curriculum materials must also be accessible to students with visual impairments. It's important to emphasize the importance of digital content that is tailored to their needs because traditional textbooks may not always cater to their needs. The level of use of the available technological tools can shed light on the efficiency of the infrastructure that is already in place. Financial resources allocated to technological tools and training can reveal the region's priorities for inclusive education, and feedback from students and educators can guide future technological investments and training. According to Gilbert et al. ([2007](#)), partnerships with technology companies or NGOs can also contribute to a more inclusive learning environment. A thorough assessment of innovations in schools in Gilgit-Baltistan can give an unmistakable image of the district's devotion to training (Huang and Li, [2022](#)).

### **Policy for Disabled Students at HEC**

The Advanced Education Commission (HEC) in Pakistan is focused on guaranteeing equivalent admittance to advanced education for individuals with handicaps. The approach, formed under the HEC Law, 2002, expects to work with comprehensive schooling for crippled students in both scholar and extra-curricular exercises. It is per public and global responsibilities, similar to the Maintainable Advancement Objectives for 2030 and the UN Show on the Freedoms of People with Handicaps. The approach orders non-oppression understudies in light of any handicap and overrides past HEC strategies. It applies to all students with disabilities in HEIs, including current and potential students. HEIs must form an Accessibility Committee, headed by the Director of Student Affairs, to determine necessary accommodations, counselling provisions, faculty advising, accessibility improvement recommendations, and

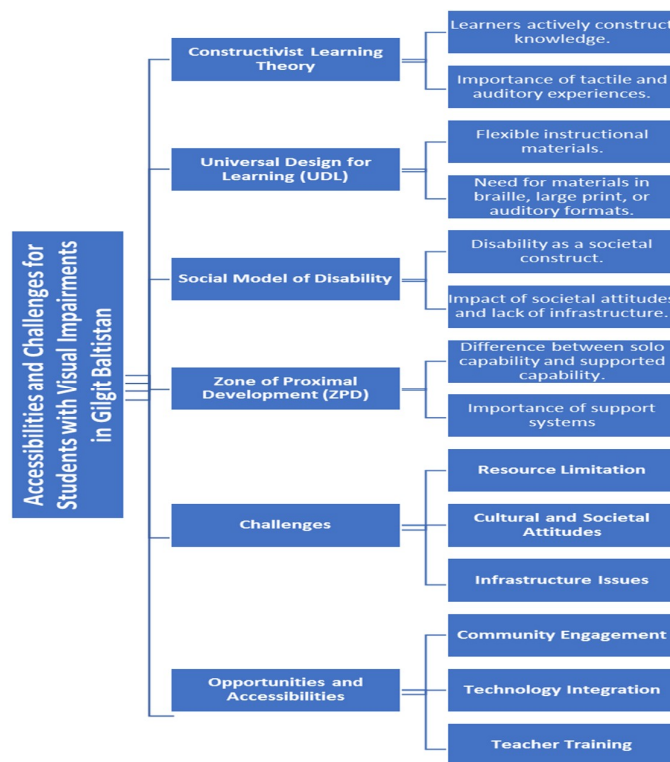


liaise with disabled organizations (Higher Education Institutions in Pakistan, 2021).

### Theoretical Framework

The following theories support the study: Constructivist Learning Theory: which Advocates for active knowledge construction by learners (Vygotsky et al., 1979); Universal Design for

Learning (UDL): Which advocates for flexible instructional materials and activities (Craig et al., 2019); Social Model of Disability: Views disability as a social environment-created condition (Kattari et al., 2017); Zone of Proximal Development (ZPD): Highlights the need for effective support systems like trained teachers, peers, or adaptive technologies (Eun, 2017).



### Research Methodology

#### Research Design

This study uses a descriptive paradigm and a qualitative approach to explore the experiences and challenges of visually impaired students and their teachers. According to Best and Kahn (1993:81), Qualitative research emphasizes data gathering on natural phenomena, rather than numerical data, and involves observation and recording behavior in its natural setting. The researcher interprets phenomena based on the meanings people bring to them. Despite being carefully planned, this approach allows for change and exploration of different questions, ultimately leading to a deeper understanding of the experiences and challenges

faced by visually impaired students and their teachers (Ramahuta, 2007:28).

#### Population

The population of this study consisted of teachers in a public special education complex in Gilgit Baltistan teaching students with visually impaired students. The teacher teaching students with visually impaired secondary level were part of this study.

#### Sample of the Study

The study used purposive sampling to select a sample of five teachers from the special education

complex in Gilgit city; two female teachers were included in the sample.

### Research Instrumentation

The researcher created interview protocol instruments for a study examining the accessibility and challenges faced by visually impaired students. The instruments included 12 questions for teachers to understand their perceptions of the curriculum and instructional activities. The questions were validated by experts and used in the study.

### Data Collection

The researcher visited a public special education complex and obtained permission from the head of the department, Deputy Director of Special Education Department Gilgit Baltistan, to conduct interviews with teachers. A structured interview protocol was used, with the researcher focusing on facial expressions and asking detailed questions. The interviews took 10 to 12 minutes, and the researcher questioned politely and humbly to avoid discomfort. Ethical issues were addressed, adhering to the principles of research integrity, respecting

participants' dignity, and obtaining full consent before conducting the study. The researcher ensured that all ethical considerations were fulfilled during the interview process.

### Data Analysis

The data was systematically analyzed using thematic analysis techniques, summarizing and interpreting the collected data using themes to simplify the phenomena, allowing the researcher to make sense of the collected data.

### Data Analysis and Interpretation

Analyzes data collected through questionnaires, generating themes, sub-themes, and codes. One questionnaire was developed for teachers teaching visually impaired children. The study aimed to explore accessibility and challenges in curriculum and instructional activities faced by the teachers teaching students with visual impairment in Gilgit Baltistan. The qualitative research was conducted using a purposive sampling technique, with a sample of randomly selected students.

### Question 01

What kind of issue(s) do you face while teaching to the students with visual impairments?

**Table 1**

*Issues related to teaching students with visual impairments*

Sub Theme	Responses
Accessibility to Materials	40% of teachers responded about inaccessibility to Materials
Diverse Learning Abilities	35% of teachers shed light on Diverse Learning Abilities
Teaching Braille and Aids	25% of teachers raised issues about teaching Braille and the lack of AV Aids

Table 1 depicts that teaching students with visual impairments presents several challenges, with accessibility to materials being the most prevalent issue, mentioned by 40% of the teachers. This includes problems related to syllabus, book availability, and the availability of instructional and embossed materials. Additionally, 35% of the teachers express concerns about the diverse learning abilities of students, with some facing difficulties in dealing with variations in IQ levels, student behaviour, and parental involvement. Lastly, 25% of the teachers find teaching Braille and

providing necessary teaching aids to be challenging due to a shortage of materials and resources. These challenges collectively impact the quality of education for visually impaired students and call for improved support and awareness in the education system.

### Question 02

What kind of issue(s) do you face while teaching to the students with visual impairments?

**Table 2**

*Issues related to teaching students with visual impairments*

Sub Theme	Responses
Lack of Visual Learning	40% of teachers mentioned about lack of visual learning
Resource Constraints	40% of teachers mentioned Resource Constraints
Behavioural and Environmental Factors	20% of teachers mentioned Behavioral and Environmental Factors

Table 2 shows that 40% of teachers highlighted this issue that teaching content like biology without visual aids becomes challenging to visually impaired students presents notable challenges. Resource constraints, also at 40%, further compound the problem, hindering the provision of touch-based models and appropriate educational materials like Braille books. Behavioural and environmental factors contribute to the challenge, albeit to a lesser

extent (20%). Disruptive behaviour and carelessness among students, along with inadequate parental involvement, affect the teaching and learning process

**Question 03**

What strategies do you adopt to make your teaching accessible for students with visual impairments?

**Table 3**

*Teaching strategies to teach students with visual impairments*

Sub Theme	Responses
Utilize Multi-Sensory Approaches:	80% of all the teachers mentioned about the use of Utilize Multi-Sensory Approaches
Provide Detailed Verbal Descriptions:	80% of all teachers mentioned the use of Provide Detailed Verbal Descriptions
Use of braille books and hands-on experiences	100% of all the teachers mentioned about use of braille books and hands-on experiences

Table 3 shows that 100% of all the teachers mentioned that they use braille books and provide hands-on experiences to students to gain full sight of things that teachers want to deliver whereas 80% of all teachers mentioned the use of Provide Detailed Verbal Descriptions and Utilising Multi-

Sensory Approaches while delivering the lecture to students with visual impairments

**Question 04**

What are the major barriers in the curriculum for students with visual impairments?

**Table 4**

*Barriers in Curriculum and Curriculum Modification for Visually Impaired Students*

Sub Theme	Responses
Medium of Instruction and Language Barriers	57.1% of all teachers mentioned about the barrier of Instruction and Language Barriers
Printing Issues and Legibility	28.6% of all teachers mentioned about the Printing Issues and Legibility
Relevance and Appropriateness of Syllabus	42.9% of all teachers mentioned about irrelevance of the syllabus
Delayed Access to Curriculum Materials	28.6% of all teachers mentioned Delayed Access to the Curriculum

Sub Theme	Responses
Individualized Attention	71.4% of all teachers mentioned about lack of Individualized Attention
Adaptation of Teaching Methods	85.7% of all teachers mentioned about lack of adaptation to teaching methods

Table 4 depicts that the teachers unanimously acknowledged the challenges faced by visually impaired students in the curriculum. The medium of instruction, particularly the transition to English, was identified as a significant barrier by 57.1% of respondents. Printing issues, syllabus relevance, and accessibility problems were also recognized as obstacles. In terms of modifying teaching strategies to address student difficulties, a common approach was individualized attention, with 71.4% of

respondents indicating its importance. Adaptation of teaching methods to suit students' understanding (85.7%) and involving parents in addressing student challenges (42.9%) were also highlighted.

#### Question 05

How do you modify your teaching, if students face problems?

**Table 5**

*Modifications in Teaching Strategies*

Sub Theme	Responses
Individualized Attention and Support	57.1% of all teachers mentioned about Individualized Attention and Support
Task Adaptation and Simplification	42.9% of all teachers mentioned about Task Adaptation and Simplification
Flexible Teaching Approaches	85.7% of all teachers mentioned Flexible Teaching Approaches
Student-Centric and Child-Centered Methods	28.6% of all teachers mentioned about Student-Centric and Child-Centered Methods

Table 5 shows that the teachers employ various modifications in their teaching strategies to address the challenges faced by students. Flexible teaching approaches were the most prominent, with 85.7% of respondents emphasizing the need to adapt lesson plans and teaching methods based on assessments and student comprehension. Individualized attention and support were highlighted by 57.1% of teachers, focusing on providing extra time and involving parents to tailor teaching to students' needs. Task adaptation and simplification were acknowledged by 42.9% of

teachers, involving altering tasks and instructions to enhance understanding. However, student-centric and child-centred methods were emphasized by 28.6% of teachers, underscoring the importance of shifting the teaching approach to suit students' learning capacities and preferences.

#### Question 06

How do you modify your teaching, if students face problems?

**Table 6**

*Accessible Instructional Strategies for Visually Impaired Students*

Sub Theme	Responses
Use of Simple and Understandable Language	88.33% of all teachers mentioned the use of Simple and Understandable Language

Sub Theme	Responses
Utilizing Braille and Tactile Methods	33.33% of all teachers mentioned about Utilizing Braille and Tactile Methods
Adapting Teaching Methods Based on Individual Needs	50.0% of all teachers mentioned adapting Teaching Methods Based on Individual Needs
Incorporating Storytelling Techniques	33.33% of all teachers mentioned about Incorporating Storytelling Techniques

Table 6 presents that teachers employ a variety of strategies to ensure that instructions are accessible for students with visual impairments. The most prevalent approach, identified by 83.3% of teachers, is the use of simplified and clear language to convey instructions effectively. Additionally, 50.0% of teachers emphasize the importance of adapting teaching methods to suit the individual needs of visually impaired students. Braille and tactile methods are utilized by 33.3% of teachers, aiming

to provide instructions through tangible and accessible means. Another 33.3% of teachers employ storytelling techniques, making instructions engaging and accessible by integrating narratives into their teaching approach.

#### Question 07

What kind of resources does your school have to teach the students with visual impairments?

**Table 7**

*Resources for Teaching Students with Visual Impairments*

Sub Theme	Responses
Braille Materials (Books, Frame, Board, Stylus)	100% of all teachers mentioned about the use of Braille Materials
Computer Lab	66.7% of all teachers mentioned about Computer Lab
Real Books	33.3% of all teachers mentioned the Real Books

Table 7 presents that 100% of teachers mentioned having a variety of resources available to facilitate teaching students with visual impairments by presenting books, frames, boards, and stylus used to enhance Braille learning, 66.7% of all teachers mentioned having a computer lab in the school which are adapted according to the visually impaired students. Moreover 33.3% of all teachers mentioned that Real Books are available throughout the year. In conclusion, the availability of resources like Braille materials and a supportive colleague

network contributes to a conducive teaching environment for students with visual impairments, ultimately enhancing the educational experience for these students.

#### Question 08

Can you share instructional challenges that you face with other colleagues while teaching students with visual impairments?

**Table 8**

*Collaborative Sharing of Instructional Challenges*

Sub Theme	Responses
Supportive Colleague Network	100% of all teachers mentioned about the Supportive Colleague Network
Collective Problem-Solving Approach	100% of all teachers mentioned about Collective Problem-Solving Approach

Table 8 presents that 100% of teachers responded to active engagement in a collaborative approach by sharing instructional challenges they face while teaching students with visual impairments. All 100% of teachers indicated that they participate in a supportive colleague network, where they openly communicate and discuss the problems they encounter. This environment encourages a collective problem-solving approach, allowing teachers to collaboratively address challenges and find effective solutions. The willingness to share

experiences and work demonstrates a strong camaraderie and dedication to improving the teaching and learning experiences for students with visual impairments.

**Question 09**

In your opinion, which teaching method is not appropriate for teaching students with visual impairments?

**Table 9**

*Appropriateness of Teaching Methods for Students with Visual Impairments*

Sub Theme	Responses
Tailoring Teaching Methods to Individual Learning Needs	83.3%of all teachers mentioned Tailoring Teaching Methods to Individual Learning Needs
Student-Centric Approach	100% of all teachers mentioned about Student-Centric Approach

Table 9 shows that Teachers unanimously believe that no teaching method is inherently inappropriate for students with visual impairments. The appropriateness of a teaching method is seen through the lens of tailoring 83.3% of these methods to suit the individual learning needs of each student. They emphasize the importance of understanding and considering the mental level, learning needs, and preferences of each student while employing teaching methods. The unanimous agreement among the teachers underscores the significance of a student-centric approach 100%,

tailoring teaching methods to cater to the unique requirements of each student with visual impairments. Overall, the focus is on adapting methods to accommodate the diverse learning styles and abilities of visually impaired students, ultimately promoting an inclusive and effective learning experience.

**Question 10**

What is your opinion about the challenges of braille reading and writing for teachers and students?

**Table 10**

*Challenges of Braille Reading and Writing*

Sub Theme	Responses
Initial Learning Difficulties	83.3%of all teachers mentioned about Initial Learning Difficulties
Impact of Training and Practice	83.3%of all teachers mentioned about Impact of Training and Practice
Specific Challenges for Students with Dysgraphia and Dyslexia	16.7%of all teachers mentioned about Student-Centric Approach

Table 10 shows that 83.3%of teachers unanimously agree that there are initial learning difficulties associated with Braille reading and writing, especially during the early stages of learning and in subjects like Mathematics and Science. They emphasize that consistent training and practice play a significant role in overcoming these initial

challenges. 83.3% of Teachers mentioned that the impact of training and practice is considered crucial in facilitating effective Braille reading and writing, and trained teachers are generally better equipped to handle these challenges. However, it is noted that 16.7% of students, particularly those with dysgraphia and dyslexia, may face specific

difficulties while learning Braille reading and writing. Overall, the responses highlight the importance of training, practice, and individualized support to address the challenges associated with Braille reading and writing for both teachers and students.

**Question 11**

Can you suggest any improvement/s in curriculum/teaching to fulfil their learning needs?

**Table 11**

*Improvements in curriculum*

Sub Theme	Responses
Regional and Cultural Inclusion in Curriculum	66.66% of teachers mentioned Regional and Cultural Inclusion in Curriculum
Content Relevance and Modernization	33.33% of teachers mentioned Regional and Cultural Inclusion in Curriculum
Chapter Length and Information Accessibility	33.33% of teachers mentioned Chapter Length and Information Accessibility
Improvements in Teaching Material	33.33% of teachers mentioned Improvements in Teaching Material

Table 11 presents that the majority 66.66% of teachers emphasize the importance of regional and cultural inclusion in the curriculum, advocating for representation at the regional level in curriculum development. They believe this would enrich the curriculum with region-specific information and culture, enhancing students' engagement and understanding. Additionally, 33.33% of teachers responded as the need for content relevance and modernization is highlighted, suggesting updates and replacements to ensure the curriculum aligns with contemporary knowledge and experiences. 33.33% of teachers show their Concerns about

chapter length and the need for accessible information, especially in the context of evolving contractions in languages like Urdu, are also brought forth. Finally, 33.33% teachers underscore the importance of improving teaching materials, including modernizing teaching methods and enhancing the quality of printed books for optimal accessibility and learning experiences.

**Question 12**

What type of training did you get during your service?

**Table 12**

*Training*

Sub Theme	Responses
Braille training	100% teachers mentioned of braille training
Mobility training	88.33% teachers mentioned of Mobility training
Math training	16.66 % teachers mentioned of Math training

Table 12 shows the responses given by the teachers about the type of training they received during the service. 100% of teachers mentioned that they receive braille training to enhance braille proficiency and educational experience, particularly leveraging modern technology and Braille training to cater to visually impaired students. Additionally, 88.33% of teachers mentioned that they received mobility and orientation training to facilitate a

better educational environment. 16.66 % of teachers answered that the presence of math training signifies a focus on enhancing the teaching and learning of mathematics. Overall, the teachers' training experiences are geared towards providing an inclusive and enriched educational experience for their students.

## **Conclusion**

The study reveals that the teacher who teaches students with visual impairments in Gilgit-Baltistan faces difficulties with the curriculum and instructional activities, including limited access to materials, a variety of learning styles, and teaching Braille and aids. Teachers have demonstrated a strong commitment to modifying their teaching methods to make the curriculum more accessible despite these difficulties. They have utilized multi-tactile methodologies, definite verbal portrayals, and Braille books, zeroing in on fitting strategies to individual advancing necessities and taking on an understudy-driven approach. Educators have additionally featured the requirement for enhancements in the educational program, including local and social considerations, content importance, modernization, and educating materials. Teachers worked hard to change their teaching ways, but there is still room to do better in making courses, getting materials, and training teachers. They used Braille, hands-on tools, and sometimes computers. They made their teaching simpler, gave one-on-one help, and changed materials to fit their needs. Getting to resources, teaching in ways that fit all learning styles, and using Braille and other aids were big challenges.

Teachers paid attention to each student, made tasks fit better, and used flexible ways to teach. Problems with the course included language issues, printing troubles, how relevant the topics were, and slow access to materials. Teachers thought the course could get better by adding local cultures, making content more relevant, adjusting the size of chapters, making information and materials easier to get, and providing better teaching tools. They learned how to teach math, how to move around, and how to use Braille.

## **Recommendations**

The following recommendations were developed based on the results: 1) Improve Access to Teaching Materials; 2) Enhance Teacher Competence and Preparation; 3) Individualize Instruction for diverse learning needs of visually impaired students; 4) Promote Multi-Sensory Approaches; 5) Foster Collaboration and Support among teachers; 6) Ensure Cultural and Regional Inclusion; 7) Enhance Accessibility of Curricula such as language barriers, printing issues, and delayed access to materials; 8) Strengthen Parental Involvement; 9) Invest in Assistive Technologies; 10) Conduct Ongoing Research and Evaluation.



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