

Problems Faced by the Teachers in Teaching Mainstream Curriculum to Visually Impaired Students in Pakistan

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Abstract

The study was designed to find out overall problems faced by the teachers in teaching curriculum to visually impaired students. The objectives of the study were to identify problems faced by the teachers (public and private) in curriculum for visually impaired students, to recommend strategies to minimize problems faced by teachers in curriculum. The study employs a mixed-method research design, combining qualitative interviews with teachers and quantitative questionnaire data to provide a comprehensive analysis. The study has established that Schools do not have appropriate teaching and learning resources to help students with the visual impairment and be able to assimilate better in classroom. The study further found that there is a lack of cooperation, or contribution by the parents in the educational matters of their children. Another hindrance is that teachers were not trained to teach students with visual impairment. Apparatus and teaching aids are either inadequate or outdated and not suitable for imparting satisfactory level of education. Students are therefore not assessed based on their individual capability and skill level. The skill and knowledge of teaching the visually impaired is on the decline alarmingly. This trend needs to be halted. It is as statistically proven that a modified curriculum for the visually impaired is a dire need of the time.

Keywords: *Visually impaired, special education, curriculum, teachers*

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Introduction

Education starts at the early stage of childhood. How to take care of themselves? How to learn skills for livelihood and move in the community? These learning skills are important for survival in the society. Slightly blind child can learn from family and friends, such as how to move, sit, eat and drink while in public. They learn through observation or by conversation with other people. Blind children miss that opportunity of learning; therefore, an appropriate curriculum is needed for such children. Globally it is accepted that all students have the right to a quality education. United Nations' convention on the rights of persons with disabilities. (United Nations, 2006).

Recent research has highlighted the evolving challenges in educating visually impaired students. Alhammadi and Mulhim (2023) emphasize that despite technological advancements, teachers continue to face significant challenges in delivering curriculum content to visually impaired students. In Pakistan specifically, Bhutto et al. (2022) note that while educational policies advocate for inclusive education, practical implementation remains challenging due to resource constraints and inadequate teaching methodologies. The gap between mainstream curriculum requirements and the specialized needs of visually impaired students continues to widen, particularly in developing countries (Shafique & Idrees, 2021).

The students usually learn from three ways; visually, auditory, and kinesthetically, whereas visual impaired students learn both, by auditory and kinesthetically. Written words are dependent upon previous experience with those words through spoken communication. Written language has its basis in spoken language. The students with low vision have less exposure towards the physical world, so the role of the teacher is giving sight and exposure to them by using corrective measures and compensatory methods to minimize effects of visual impairment while developing writing skills of students with visual impairment. Teacher should understand that a writer can only write about something which he believes about, or he knows. Thus, he must identify what he has already learned about a topic (Riley, 2000).

Students who are visually impaired often have sharpness in other senses and it's important to capitalize on this. Whenever possible, the teacher may, take replica into the classroom, so that low visually impaired students will be able to touch and feel the objects; this will be useful for learning new vocabulary. Teacher is the main cog in the process of education, so it is very important for teachers to try to meet the needs of

students with eyesight problems since so much of a child's learning is dependent upon vision. Using different teaching strategies and tools can be a source of welcoming environment for a child with special visual needs. Students with visual impairments must be taught the necessary skills to obtain access to information" (Riley, 2000).

Apparently, teaching the visually impaired children demands additional pedagogical skills as compared to teaching writing skills to normal children and problem becomes more challenging when visually impaired students come from various backgrounds. To address certain aspects of developing skills, both manuscript and cursive handwriting in visually impaired children, teachers face a variety of problems. Teacher must know the learning styles and learning strategies of each student so that he may be able to minimize the disability or visual loss problem among his students (Riley, 2000).

In regular curriculum, not much material is available for their vocational guidance. As a result of technological advancement, changes in job market, hiring for new job appointments and the development of new product and sales markets have made it very clear that vocational guidance and skills development techniques should be essential part of curriculum for visually impaired children, (Jr. Gane, 1971).

Expanded core curriculum components is the heart of the responsibility of educators serving visually impaired students and their right to be different.

Access skills, orientation and mobility skills, and concepts social action skills, use of technology and assistive technology, career education, independent living skills, vocational and leisure skills, self-determination skills and sensory efficiency skills (Kally, 2015, Sapp & Hatlen, 2010), each must be addressed in curriculum orientation and mobility skills are needed for individuals with vision impairment to safely maneuver in their environment (Jacobson, 2012).

Social interaction skills used by sighted students are learned by visually observing the environment and other people resulting in socially appropriate behavior based on that information, (Sapp & Halten, 2010, Zebehazy & Smith, 2011).

Self-determination is another essential point, refers to making own choices having control over life experience (Lieberman, Haegel, Columna, and Convoy, 2014).

In general education curricula it is essential to include skills like working in groups (social skills), learning about different jobs (career skills), reading a map (orientation and mobility), managing money (independent living skills), school camping (leisure skills) should be

included in general education curriculum. It is essential that specialist trained teachers who have expertise and practical experience in the field of vision impairment, provide instructions in teaching concepts, skills and knowledge that a student who is visually impaired is likely to acquire in the same manner as their sighted peers (Ravenscroft, 2015, Sapp and Halten, 2010)

Children with Special Needs

Normally, to recognize the necessities of special educational requirements, following aspects would be kept in mind.

- i. The delivery of special resources of access to the curriculum through special tools, services or means.
- ii. Adjustment of the physical environment or specialist teaching practices.
- iii. The delivery of a special or revised curriculum.
- iv. Specific care to the social organization and expressive climate in which learning takes place.

Special learning requirements for the children with whom we are concerned should, therefore, be agreed in rapports of one or more general standards:

- i. Current contact on a complete or part-time basis to teachers with suitable trainings or significant experience together.
- ii. Real access on a complete or part-time basis to other experts with suitable teaching.
- iii. A suitable informative and cordial atmosphere with the essential tools and means suitable to the child's needs (Fisher, 1985).

Recent Developments in Special Education Curriculum

Contemporary research has identified several critical aspects of curriculum development for visually impaired students. Ravenscroft and Davis (2019) emphasize that vision impairment affects learning across multiple domains, requiring a comprehensive approach to curriculum modification. Their research identifies three key areas requiring attention:

1. Digital accessibility and technological integration
2. Specialized assessment methods
3. Adaptive teaching strategies

In the Pakistani context, Khan et al. (2019) found that child-friendly teaching approaches significantly impact academic achievement among visually impaired students. Their study revealed that schools

implementing modified teaching methodologies showed better student outcomes compared to those following traditional approaches.

Bano et al. (2020) conducted a comprehensive review of barriers to inclusive education in Pakistan, identifying several systemic challenges:

- Limited availability of specialized teaching materials
- Insufficient teacher training programs
- Inadequate infrastructure for implementing modified curricula
- Limited parental involvement in curriculum development

These findings align with international research by McDonnall and Sui (2019), who emphasize the importance of integrating vocational training and life skills into the curriculum to improve long-term outcomes for visually impaired students.

Major Scopes of Special Education

Key measurements of special teaching have been drawn with the awareness of stages of involvement. Sum of these scopes are now established in some aspect. Each is discussed in terms of levels of involvement along a variety, the staffs who might be involved and the levels of means which influence. Methodology of this kind should allow time, and other means to be assigned and achieved with more care, efficiency and in budget (Fisher, 1985).

The Curriculum

The idea associated with the handicap requires a particular curriculum and methodology. For the outcome, special schools did not form part of the mainstream of primary and secondary curriculum growth. The main concerns for effects of dealing with an educational ideal is the stress should be given on the curriculum. More rapidly connection between the syllabi of primary, secondary and special schools is now documented. This is the consequence of an increasing acceptance that:

- Children are authorized to the same informative opportunities.
- Special educational requirements are comparative.

Requirement of special needs is necessary to meet special educational needs in primary and secondary schools. Curricula in special educational provision are now seen as variations derived from the curriculum for all children. Procedures chosen by the Department of Education and Science suggest that three alternatives of the general curriculum might be

appropriate for children with different types of special educational needs (Fisher, 1985).

These are largely as follows:

- i. To make the curriculum accessible to all pupils of the same age; special education in this case relates to the technical support and presentation of material that is necessary.
- ii. There is a need of modified curriculum where students study the same range of material as their colleagues, but the objectives set and the methods and materials used are modified;
- iii. Special curriculum with emphasis on social and life skills for those with the most severe and complex special educational needs.

Creation of special curriculum is not easy, traditional situations are general and closely tied in which special education has taken place. Its application at present to the assessment of individuals and its resource implications are difficult to specify. A much more rigorous analysis is necessary. One of the important objectives should be examine the role it plays in determining where the special education a child requires, can be provided (Fisher, 1985).

Following six steps can be helpful for a substitute formulation that might indicate an increasing distance from the general curriculum to be followed by the majority of the children of the same age. These are; (Fisher, 1985).

- i. To follow the main curriculum, technical support must be there.
- ii. Extra teaching support should be provided so that the national curriculum can be adopted for longer timespan.
- iii. Selective involvement in the national core curriculum together with other elements of a broad and modified curriculum with the same range of subjects as the national curriculum.
- iv. Selective involvement in other curriculum areas not within the national framework which are provided for the children of the same age together with another curriculum.
- v. A modified curriculum with the same range of subject areas as the national curriculum but modified in content and objectives.
- vi. A severe and complex physical, sensory and learning disability must be included in curriculum with specific social and personal development objectives for children.

The different relationships to the national core curriculum represent an increasing need for specialized curriculum development and teaching. The following paragraphs give a brief description of each level of

intervention and of the nature and degree of resources likely to be needed (Fisher, 1985).

Modified Curriculum

In the light of national curriculum guidelines, the need of a modified curriculum will become clear. There is a need that children with special needs and requirements are offered same curriculum and subjects as are given to normal children but the resources and learning objectives are significantly modified to take account of learning complications and difficulties of all kinds. Children with moderate degrees of learning difficulty exist in significant numbers in primary and secondary schools as well as in special schools. The change or modification in curriculum depends upon importance of section of the school population which consists of primary, secondary and special education. The degree of modification necessary for children with moderate degrees of learning difficulty, there is a need for a definition that is acceptable with in the main curriculum and the modification necessary for special children needs. As with other borderlines this will shift as schools become more or less able to teach the range of children who attend them (Ireson, 1989).

For special schools and classes, the kind of materials and equipment are required by this type of intervention are:

- For preparation of material need of subject teacher hours.
- Equipment and materials.
- Non-teaching assistant hours.
- Special educational teaching hours.

In this type of enrollment, it is preferable that full time special education teaching with teacher and pupil ratios is more encouraging than are general in primary and secondary schools in the surrounding. It would be expected in secondary schools that specialist subject teachers would share, with special education teacher, responsibility for the modified teaching of their subjects. This commitment should be specified in terms of hours per term if the modified curriculum is to maintain quality of content and material as well as quality of methodology (Ireson, 1989).

Statement of the Problem

The main theme of the research was to collect opinions of the teachers about their problems while teaching curriculum to visually impaired students. Therefore, this study was comparison of curriculum of public and private schools for visually impaired children. The art of teaching to visually impaired children is going down day by day in

Pakistan as teachers face different problems while teaching the prescribed curriculum. This downward trend needs to be stopped otherwise it would further deteriorate the learning of visually Impaired children. Most of these children face difficulty to compete syllabus for normal children. Which they were very unfortunately expected to learn which they could not.

Purpose of the Study

The study was helpful for teachers in finding out how they cope with and overcome problems in curriculum for visually impaired students. It was designed to identify problems faced by teachers in teaching normal curriculum to visually impaired students. It was apprehended that identification of problems may be helpful in recommending appropriate remedial measures to address problems of such teaching. The research would be helpful for the teachers to design appropriate teaching methodologies.

Objectives

The following were the objectives of this study:

1. To find out the problems faced by the teachers teaching curriculum to visually impaired students.
2. To recommend strategies to minimize problems faced by teachers in curriculum.

Justification

The existing research, such as Elke (2004), Moira, Lieberman, and Hand (2006), Lauren, Wilson, Kozub, (2002) shows that most of the research work done on visually impaired children is carried out in western countries which mostly take care of physical and environmental aspects of the disability. There is a need to investigate the intellectual competences of the visually impaired children in Pakistan for which curriculum are the first milestone requiring further probe.

Delimitation

The problem needed through investigation however, there were certain limitation like time, and financial constraints. That's why the study was limited to following five schools of visually impaired children in Rawalpindi and Islamabad.

- i. Government Qandeel Secondary School for Blind (Girls), Shamsabad, Rawalpindi.

- ii. Government Qandeel Secondary School for Blind (Boys), Kohati Bazar, Rawalpindi.
- iii. Federal Government Al-Maktoom Special Education School, Islamabad.
- iv. Naval Special Education School, Sector E-8, Islamabad.
- v. Army Special Education Academy, Cantonment, Rawalpindi.

Research Design and Methodology

Research Design

The research design was mixed method approach. The mixed method research is the type of research in which researcher combines qualitative & quantitative research approaches. Mixed method approach is used for the broad purpose of understanding & corroboration. Full & rich information will be obtained in this method. For quantitative approach questioner was structured and for qualitative approach interviews were conducted by the researcher.

Population

The estimated population of teachers for visually impaired children in Punjab was approximately four hundred teaching in twenty-five schools for visually impaired children.

Sample and Sampling Method

100 teachers from five schools of Rawalpindi and Islamabad were selected from the above population. Convenience sampling was used as a sampling method. 100 teachers were selected from the following schools:

- i) Government Qandeel Secondary School for Blind (Girls), Shamsabad, Rawalpindi.
- ii) Government Qandeel Secondary School for Blind (Boys), Kohati Bazar, Rawalpindi.
- iii) Federal Government Al-Maktoom Special Education School, Islamabad.
- iv) Naval Special Education School, Sector E-8, Islamabad.
- v) Army Special Education Academy, Cantonment, Rawalpindi.

Justification of Sample Size

The selection of a 100-teacher sample from five schools is consistent with established research practices in educational studies. According to Creswell (2014), an adequately sized sample in mixed-method research

should balance depth and breadth to ensure comprehensive data collection. Similarly, McMillan and Schumacher (2010) emphasize that a sample size should be determined based on representativeness and feasibility while ensuring statistical validity. Studies on visually impaired education, such as those by Ravenscroft and Davis (2019), suggest that a sample of similar magnitude allows for meaningful comparative analysis while capturing key trends. Additionally, Cohen, Manion, and Morrison (2018) highlight that in educational research, a sample size ranging from 30 to 100 participants is often sufficient for reliable quantitative analysis while enabling in-depth qualitative exploration. Thus, the chosen sample size aligns with methodological guidelines, ensuring both statistical reliability and contextual relevance.

Instruments and Material

The Instrument consisted of a questionnaire having twenty close ended items and six open ended items. A three-point rating scale, ranging from agree, uncertain and disagree was used to get responses of the teachers on close ended items.

Pilot Testing

A sample of twenty teachers was taken for pilot testing of the questionnaire in order to measure the reliability and validity of the instrument. This sample of teachers was not included in the sample of the actual study.

Procedure for Data Collection and Data Analysis

Data Collection

Out of sample of hundred teachers, eighty teachers for visually impaired students were taken for data collection on the twenty close ended items of questionnaire and ten teachers for the visually impaired children were chosen for conducting interview on six open ended questionnaire items as per their availability.

Data Analysis

The responses of the teachers for visually impaired children on twenty close ended questions and six open ended questions were measured by using frequency and graphs. Responses on the questions were also analyzed in SPSS software and interpreted by integrating both types of interpretations

Findings, Discussion, Conclusion and Recommendations

Summary

The study was design to find out overall problems faced by the teachers in teaching curriculum to visually impaired children. The objectives of the study were problems faced by the teachers in teaching normal curriculum to visually impaired students, to take the opinions of the teachers of public and private schools for visually impaired children, to recommend strategies to minimize problems faced by teachers in teaching normal curriculum to visually impaired children.

In main study data was collected from the sample of 100 teachers from 5 schools. Government Qandeel Secondary School for Blind (Girls), Shamsabad, Rawalpindi Government Qandeel Secondary School for Blind (Boys), Kohati Bazar, Rawalpindi. Federal Government Al-Maktoom Special Education School, Islamabad Naval Special Education School, Sector E-8, Islamabad. Army Special Education Academy, Cantonment, Rawalpindi were taken from population of 25 schools of Punjab for visually impaired children. Convenience sampling was used as the sampling method. Design of the study was mixed method approach. For data Collection, a questionnaire of 26 items (20 close ended items and 6 open ended items) was used as an instrument. Data was analyzed by measuring the frequency and graphs.

The main objective of the study was to be found out over all problems faced by the teachers teaching normal curriculum to visually impaired children. It was statistically proven that 95% teachers were agreed that modified curriculum for visually impaired children was a need of the time. The study found not only inflexible curriculum but lack of collaboration among teachers with specialized skills was impediment untrained teachers were another hindrance, they were not trained in sign language, use of brail resources, training of hearing aids, tangible diagrams and maps etc., hence the inability to teach regular curriculum to the visually impaired children. The study further found that there was a lack of cooperation and contribution by the parents in the educational matters of their children. The syllabus was old and updated in 1960s not suitable for impaired satisfactory level of education.

Findings

Findings of the Questionnaire

- Q.1. The statement indicated 51% respondents agreed that students understand secondary school mathematics.
- Q.2. The statement informed 41% disagreed that curriculum activities

- meet the special needs of these children.
- Q.3. The statement showed 75% agreed that teachers were partially trained to teach the visually impaired children.
 - Q.4. The statement indicated 28% agreed that children could perform curriculum activities well.
 - Q.5. The statement showed 61% agreed that curriculum activities improved social skills among children.
 - Q.6. The statement indicated 44% respondents agreed that curriculum activities make these children.
 - Q.7. The statement indicated 48% agreed this statement that curriculum activities help these children to learn survival skills.
 - Q.8. The statement showed 26% agreed with the statement that curriculum activities develop career building skills among children.
 - Q.9. The statement indicated 35% agreed with the statement.
 - Q.10. The statement showed 33% agreed with the statement that curriculum activities provide information which is beyond their educational environment.
 - Q.11. The statement indicated only 14% respondents agreed with the statement that teachers are not allowed by their institutes to change the curriculum.
 - Q.12. The statement indicated 72% teachers agreed that they use audio visual aids to assist in teaching curriculum to visually impaired children.
 - Q.13. The statement showed 95% respondents agreed with the statement that modified curriculum is required for visually impaired children.
 - Q.14. The statement indicated 92% teachers agreed that separate books and materials should be printed for visually impaired children.
 - Q.15. The statement showed 89% respondents agreed that social gathering sessions should be included in the curriculum.
 - Q.16. The statement indicated only 26% respondents agreed that they get ample time to give attention to individual students.
 - Q.17. The statement showed 68% respondents agree that extra-curricular vocational activities are part of the curriculum.
 - Q. 8. The statement showed only 18% teachers agreed that tutorial activity class was a part of the curriculum.
 - Q.19. The statement indicated 21% respondents agreed that educational recreational study tours were part of the curriculum.
 - Q.20. The statement showed only 15% respondents agreed that curriculum activities helped in identifying special children's needs, problems and goals.

The researcher interviewed 10 respondents during the open-ended interview. The responses of these 10 participants were almost like that of close ended queries. The overview of focus points is as follows: In the present research:

Q.1. What are the problems faced by teachers and visually impaired children who are taught normal curriculum?

Responses:

- i. The normal curriculum is very extensive and difficult, it includes various concepts and aspects of learning which visually impaired children face difficulty to comprehend. For example, in secondary school Mathematics children face problems doing algebra geometrical portions in science subject visually impaired children cannot draw diagrams and perform practical work because of lack of laboratories.
- ii. The present curriculum for visually impaired children is time consuming and lengthy.
- iii. Vocational training is not part of curriculum.
- iv. Conceptual development is the main hindrance in learning for example giving concept of color, sky and stars is very difficult for visually impaired children, as well as for teachers to explain.
- v. Visually impaired children do not have physical perception of things until or unless they touch it. Lack of learning tools such as computers, electrical devices, tactical and auditory materials, brail procurement, dictionary, learning aids are not easily available. Brail books are not available easily.
- vi. Syllabuses obsolete.
- vii. Teachers are not well trained.

Q.2. Suggest what type of modification is required in curriculum for visually impaired children?

Responses:

- i. According to the participant's responses, there is a need in modification of curriculum especially in technical subjects like mathematics and science. In Mathematics Algebra and Geometrical portions should not be part of their curriculum in secondary level, as it is very difficult for them to understand the concepts. In science subject students faced difficulty in understanding diagrams and due to lack of laboratories they cannot perform practical work. There is a

need of modification in these areas.

- ii. Syllabuses very old; it should be updated according to the needs and requirements of present times.
- iii. Learning tools such as electrical/electronic devices, tactical and auditory material should be accessible to the teachers as well as the students. It is essential for their physical and conceptual development.
- iv. Teachers should be specialized in their teaching for visually impaired children.
- v. Vocational training must be part of curriculum for not only normal children but also for visually impaired children.
- vi. Present curriculum should be according to the needs and requirements of present time.

Q. 3. Apart from the curriculum what other factors affect the learning of visually impaired children?

Responses:

- i. Mobility is the major factor which is hindrance in their education. They face difficulty moving from one place to another, especially if their classes are on Second Floor.
- ii. Environment factor is another hurdle in their education. Children who come from rural areas are not aware of education and they do not have opportunity to learn as compared to urban children.
- iii. Parents support is also lacking for these children, as they do not give importance as compared to their normal children.
- iv. Exams are conducted by using writers, students cannot attempt papers by themselves.
- v. Age factor is another problem as children of different age groups were combined in same class especially at primary level.

Due to the large number of students in one class, it is not possible for the teacher to give individual attention to the students.

Q.4 Is Vocational training not part of curriculum?

Responses:

According to respondents vocational training was not part of the present curriculum. No vocational or technical education was given to

these children like making crafts or other skills so that weak children would be able to adopt it as a profession or career. Only one vocational center “TEVTA” provide guidance to these children which is not sufficient to cater the needs and requirements of visually blind children. In Curriculum there was no sally bus that develop their skills and Creativity. So that they can adopt technical education as their career and move in society independently like media or Computer knowledge. After completing their studies, they have no options but to adopt teaching.

Q.5 In Which subject of learning visually impaired children face maximum problems?

Responses:

According to the respondents the maximum problems which children face during their curriculum session was Mathematics. Most of the children left school because they were unable to do most of the portions like algebra, geometrical portions. Due to unskilled teachers their conceptual development was not develop at primary level, lack of guidance from their parents is another major hindrance in understanding Mathematics. Most of the teachers prepare children to get passing marks in this subject. According to the respondents there is need of the time to modify Mathematics Sally bus according to visually impaired children needs and requirements.

Q.6 Suggest how the curriculum can be made more attractive and effective for visually impaired children?

Responses:

According to the respondents the present curriculum is very lengthy and difficult especially technical subject like Mathematics, and Science at secondary level. There is a need that it should be modified according to the needs and requirements of visually impaired children. In Sally bus chapters like Hellen Keller should be added for the encouragement of visually impaired children. Curricular activities and educational tours should be part of curriculum. At the end of chapters’ activities should be included for these children. Present curriculum was last updated in 1960. It should be updated on regular basis as per the contemporary academic requirements and complexities. Practical aspect of the curriculum should be emphasized by the academia instead of the practical approach towards

teaching. Curriculum should be made more proactive by including interesting activities catering to the needs of visually impaired children. Vocational and technical education must be part of curriculum so that weak children will get opportunity of their career building and earn their livelihood respectfully.

Discussion

Research was conducted to ascertain the problems faced by teachers while teaching normal curriculum to visually impaired children. The main objective of the research was to obtain opinions from teachers on the curriculum presently being taught to visually impaired children in special schools. Both qualitative and quantitative methods were used to conduct this study. Questionnaires comprising of closed as well as open ended questions were presented to gather research data. Moreover, 10 interviews of teachers teaching normal curriculum to visually impaired children were conducted.

During the data collection process, researcher visited targeted schools and guided the responding teachers on how to fill out the questionnaire. The anonymity of respondents was ensured while gathering the research data.

95% respondents opined that the modification of the curriculum, especially in technical subjects like mathematics and science was required, as low vision students were unable to recognize the symbols to solve the complicated questions of these subjects. For instance, teaching geometry graphs and algebra was a difficult task for teachers. Visually impaired children were unable or lacked the abilities to understand the relationship between various objects. It was not possible to conceptually develop the idea of colors, sky, stars or clouds etc., without physical perception.

Activities at the end of each chapter of the curriculum were not according to the needs and requirements of visually impaired children. Teachers faced difficulty in teaching this curriculum due to unavailability of teaching material. Because of the level of difficulty and length of syllabus, teachers were unable to finish syllabus in requisite time. Many important parts of curriculum were missed due to paucity of time. Difficult mobility of visually impaired children was another hindrance in the learning process of these children as most of the teachers were also handicapped and the learning process had become very time consuming as well.

Respondents also acknowledged the importance of proactive contribution of parents in the provision of learning facilities to these

children. Without the guidance of parents and sharing of information about child's social, physical and emotional development with teachers, teaching process would be incomplete. However, most of the parents were unaware of these academic aspects of their child, hence, were unable to contribute positively towards the learning process of their visually impaired children. Also there was an acute shortage of subject specific trained teachers in these schools and mostly only one teacher is teaching all the subjects to a class of visually impaired children.

Recent studies have provided new insights into the challenges and potential solutions for teaching visually impaired students. Giesen and Cavanaugh (2021) found that early integration of career development components in the curriculum significantly improves employment outcomes for visually impaired students. Their research suggests that curriculum modification should extend beyond academic content to include practical life skills and vocational training.

Furthermore, Shafique and Idrees's (2021) study of information needs among visually impaired students in Pakistan revealed significant gaps in current curriculum delivery methods. They identified several critical areas requiring immediate attention:

1. Access to Digital Resources:

- Limited availability of screen readers and assistive technologies
- Insufficient digital library resources
- Poor internet connectivity in educational institutions

2. Teaching Methodology:

- Need for specialized training in using assistive technologies
- Requirement for modified assessment techniques
- Importance of individualized learning approaches

3. Infrastructure Requirements:

- Need for specialized computer labs
- Requirement for updated braille printing facilities
- Necessity of modern teaching aids

These findings are corroborated by Bhutto et al. (2022), who studied the challenges of teaching English to visually impaired students in Pakistan. Their research highlights the necessity of:

- Developing specialized teaching materials

- Incorporating audio-based learning resources
- Implementing modified assessment strategies
- Providing continuous professional development for teachers

The cumulative evidence from recent research suggests that successful curriculum implementation requires a multi-faceted approach that addresses both pedagogical and infrastructural challenges. As Alhammadi and Mulhim (2023) conclude, effective curriculum delivery for visually impaired students requires:

- Regular teacher training programs
- Updated teaching resources
- Modified assessment methods
- Enhanced technological support
- Greater parental involvement
- Continuous curriculum evaluation and modification

These findings not only reinforce the results of our study but also provide new directions for curriculum development and implementation strategies for visually impaired students in Pakistan.

Conclusion

In the viewpoint of researcher, financial problems of the institutes, inflexible syllabus and lack of apparatus used for the access of students in classroom, untrained teachers and unavailability of brail resources, are few of the main problems being faced by special needs educators. There is a need for the government to review the curriculum of visually impaired children on regular basis and provide necessary modifications.

To summarize, the existing curriculum is more like a program for regular students and is unsuitable as a teaching methodology for the special needs children and also to the peculiar Pakistani educational environment.

Therefore, there is a dire need for the development of a research-based curriculum suited to our surroundings. Government should review the curriculum of visually impaired children and provide necessary modification on regular basis.

Recommendations

According to findings following recommendations are given by the researcher.

- i. Normal curriculum is very extensive and difficult, particularly technical subjects like mathematics and science at secondary level. It should be commensurate with the needs and requirements of visually impaired children especially technical subjects like Mathematics and Science. Mostly visually impaired children left school or are unable to perform well in difficult portions of Mathematics. It is recommended that only those portions should be added in their sally bus that are essential for their conceptual development. Activities at the end of each chapter may be prepared according to the needs and requirements of visually impaired children.
- ii. Vocational training of students is not part of the curriculum. There is only one vocational training center (TEVTA) in entire province of Punjab. More vocational training centers across the whole country are needed to be developed.
- iii. Current syllabus is obsolete as it was last updated in 1960s. It may be updated on regular basis as per the contemporary academic requirements and complexities.
- iv. Practical aspects of the curriculum may be emphasized by the academia instead of theoretical approach towards teaching. Curriculum may be made more proactive by including interesting activities catering to the needs of visually impaired children.
- v. Teachers may be trained on regular intervals through refresher courses as per the subject demands. They may also be trained and sensitized for better understanding of psychological and emotional needs of visually impaired children.
- vi. Teachers and parents may be allowed more interaction. Curriculum may be flexible enough to incorporate any positive input from parents and teachers.
- vii. In planning and development of curriculum concerned teachers and heads of special institutes may also be involved in making the curriculum more acceptable and effective for these children.

- viii. Tutorial activity class may be part of the curriculum as most of the parents of visually impaired children have no knowledge and understanding of brail language.
- ix. Schools may also arrange co-curricular activities such as, sports programs, art exhibitions, debate competitions, educational tours etc.
- x. Government may allocate appropriate funds for the availability of modern training aids like computers, projectors etc.
- xi. To enhance the results of this study on national or regional level, further research can be conducted, as for this comparative study data was collected from only two cities.

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