

STUDYING THE PARTICULAR LEARNING STRATEGIES FOR VISUALLY IMPAIRED CHILDREN: ISSUES AND OPPORTUNITIES IN PAKISTAN

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ABSTRACT

Education is a basic need of every human being and should not be based on the capabilities of a child. In Pakistan, the education system for visually impaired children is very ineffective and does not offer proper curriculum, schools, and system which allow students to develop effective capabilities. In this regard, this research is aimed at exploring different strategies that are globally used for visually impaired children for letting them learn, educate and reflect whether they are being applied in Pakistan or not. The results have defined that a blind child in Pakistan currently does not have much opportunities and effective curriculum to develop the capabilities of a competitive child. The strategies need more focus and attention because visually impaired children were supposed to be more sensitive and more active as compared to normal children regarding their mental capacity and memory.

Key Words: Learning strategies, Blind, Issues, opportunities, learning disability.

INTRODUCTION

Learning and education are one of the basic rights of humanity irrespective of their abilities (Wood & Shears, 2018). In this way, learning and education for a blind person are also equally important as for the sighted people. As UNESCO has also published a document in 2015 which was titled as “The Right to Education for Persons with Disabilities” (Alper & Goggin, 2017) which shows that disable people also have equal right to get the education and enhance their learning. It further elaborates that the education system must not be denied the access to education for anyone only based on their disability which suggests that blindness as a disability of children cannot obstacle their way to learn and educate. In

many of the counties, however, it is observed that educating visually impaired children has now become a major problem based on the lack of effective strategies. As per the research of Awan et al. (2018), the blindness rate is 10 to 20 per cent higher in developing countries as compared to the developed countries. Considering this aspect, Pakistan is also one of the developing countries implies that the blindness rate is also higher in Pakistan. Furthermore, the problem of social and financial issue is also coupled with the concern of blindness making the situation worse for them to receive proper education for their learning. In the study of Curran, Liddiard, & Runswick (2018), it was mentioned that children with any disability, such as blindness, in this case, needs special attention concerning their learning, education, and social adjustment.

The education system has a range of strategies for inclusive teaching which can potentially allow students to learn, however, some of the strategies are very helpful to teach students that are blind or suffering from any kind of visual impairment. According to the definition, visual impairment refers to a substantial loss of vision. The degree and nature of visual impairment can be distinct from one person to another person which implies that every child needs an individual level of adaptations to instructional practices and materials to learn in an effective manner (McLindne & McCall, 2016). Though there are two main categories of visual impairment namely low vision and blindness. Since the focus of this research is on particular learning strategies for visually impaired children, the definition of blindness is the total loss of sight and unreliable vision which leads the person to rely on other senses (Awan et al., 2018). In most of the research papers, one of the effective strategies of learning is the use of braille for writing and reading medium.

Due to advancement in technologies, education for visually impaired children is getting easier by the passage of each day, however, visually impaired children are not becoming completely reliant on education themselves. Different learning strategies must be explored to allow visually impaired children in Pakistan to learn and educate as a normal child in the country. In the research, it is suggested that there should be learning strategies for visually impaired children that ensure their active participation in the environment of regular classrooms (Coupe & Porter, 2018). This research paper is very significant since there has been a very minimal contribution to the literature regarding learning strategies for disabled children, particularly for visually impaired children.

OBJECTIVES OF THE STUDY

To answer the above-mentioned research question, the following aims and objectives are being undertaken.

- ◆ To explore different strategies that are globally used for visually impaired children for letting them learn and educate
- ◆ To explore issues that are faced by visually impaired children in Pakistan for achieving standard education and learning
- ◆ To explore opportunities that are a prospect for visually impaired children in Pakistan for achieving standard education and learning

RESEARCH QUESTION

This research paper has the following research questions:

- ◆ What are the learning strategies that visually impaired children are using?
- ◆ What are the issues and opportunities of learning for visually impaired children in Pakistan?

LITERATURE REVIEW

From a very long period, research on the education of visually impaired children is being made, though the results and contribution of a small number of research papers and researchers have made a significant change. The name of Louis Braille is one such name that had successfully brought a radical change in the learning process of visually impaired children. As mentioned in the research of Marmor & Albert, (2017) Louis Braille in 1829 has developed a system of reading and writing named as Braille System. Due to this innovation, blind people received a better opportunity for learning and access to the world of knowledge. In this chapter of the research, different strategies of learning are explored that are specifically intended for visually impaired children. Furthermore, this chapter has also provided an insight into the issues and opportunities that are faced by visually impaired children in Pakistan concerning learning and education.

Learning Strategies for Visually impaired children

According to the study of McLindne & McCall (2016), children that are visually impaired are required to have specialized teaching to understand the concepts in this extremely visual world. Be specialized teaching, it does not mean that a student cannot learn or get an education in the regular class, but special teaching here is meant by focusing and

adopting strategies that help visually impaired children understanding the concepts (Curran, Liddiard, & Runswick, 2018). In the research studies, four of the main learning strategies are identified for visually impaired children that are concrete experience, learning by doing, unifying experiences, and braille code. The name of Lowenfeld is also very common in the field of developing learning strategies for visually impaired children.

Concrete Experiences

In the research studies, it is identified that interacting with a model have a different experience as interacting with real objects (Occelli et al., 2017). Therefore, a blind student who never had direct interaction and contact with real items need to have concrete experiences to learn effectively. For instance, the model of animals interacting with visually impaired children cannot offer them real learning of how the animal looks like because they have not touched or interacted with real animals. Therefore, it is an important strategy to offer interaction with actual and real objects for visually impaired children. This strategy can be evaluated by analysing if students can transfer the understanding from an actual object to a model or a raised line drawing. For blind people, it is extremely poor to consider that children already have concrete experiences even with what the teacher may think as common objects. In several studies, learning through concrete examples plays a great role in visually impaired children (Cranmer, 2019).

Learning by Doing

Children that are blind are required to be involved directly with every aspect of living to better comprehend the objects and world which include where things are being kept, how food is prepared, etc. Similar approach is also adopted in learning centres and at home to involve children in a routine task which promote the sense of independence and thus allow them to learn by doing their own thing eventually minimising the dependency of visually impaired children on others (Freeman & Brewster, 2016). According to Carmen (2019), one of the common issues that children with any disability face are the Good Fairy Syndrome which causes children to learn helplessness as they observe things around them are getting done by their own. Most of the time parents, family, and peer of visually impaired children lead them to learn helplessness by demonstrating kindness, good deeds, and compassion through doing their work. However, it reduces their learning and restrains them from fulfilling their responsibilities.

Therefore, a learning strategy for visually impaired children is helping them develop a sense of responsibility by motivating them to do their tasks on their own as much as they can (McLindne & McCall, 2016). Responsibility and independence are the crucial elements of learning as found in several articles of Carmen, (2019) which help them reach their greatest potential. Thus, visually impaired children are required to carry out tasks on their own which open up the opportunities and experiences that help a child in making associations.

Unifying Experiences

Teaching visually impaired children in a way that develop thematic units for them is also an effective strategy which helps them in developing a connection between and among different concepts. In this regard, relevant, purposeful, and deliberate planning of lesson is critical while incorporating the lessons for the development of concepts into the lesson plans. In the research of Cook, Richardson-Gibbs, & Nielsen, (2016) it is also mentioned that learning strategy for a blind child particularly includes a supportive “scaffold” which helps in enabling children to move to the next level of autonomous functioning.

Braille Code

Another strategy of learning for visually impaired children that is most common in several research papers is the Braille Code system which has raised dots organised in the cell. Visually impaired children by the help of position and number of raised dots; identify a letter, number, word, or a symbol (Khurana & Pruthi, 2017). It is known as the language art for blind people to learn read and write under literary braille. Many studies have defined the effectiveness of using braille code as the strategy to teach visually impaired children Gori et al. (2016), whereas many blind people have also shown a positive response towards using braille code as a strategy to learn.

Besides, certain strategies are specific for the environment of the classroom that allows visually impaired children to learn concepts effectively such as explain the visuals (Wojton, Heimlich, & Shaheen, 2016), giving instruction orally (Susanti & Rudiwati, 2019), when there is a query; ask blind students to clap, addressing them by their names, give them the adequate time of complete their work, and consider the expanded core curriculum.

In review, strategies for blind children have been explored that helps them in learning effectively. Four strategies were explored i.e. concrete experiences, learn by doing, unifying experiences, and braille code. All of these strategies hold great significance in fostering and improving the learning process of blind children. However, the current and most used strategies are braille code and concrete experiences that help boosting the learning process among blind children.

Research Design and Approach

The research has used qualitative and quantitative research designs, which has involved the use of past literature and questionnaires to collect both secondary and primary data. In this case, the current study has used a questionnaire to analyse the effectiveness of learning strategies that were explored in the literature. This research also involved the collection of primary data; the research instrument used is the questionnaire comprises of Likert scale. The research instrument includes 5 questions which have asked the participants about issues of blind children, opportunities available to them and learning strategies which can be employed for these visually impaired individuals.

Data Collection

This research study collected data by distributing questionnaire for surveying participants. The survey questionnaire was distributed among participants and data was collected. The survey was made the primary part of the research. Besides this, the data was also been collected through secondary sources. Data collection from secondary sources included analysing information from past research papers. For obtaining information from a vast number of sources various platforms were used such as research journals. Thus, this research collected data by using two different approaches which included literature and survey questionnaire.

Data Analysis

Data analysis was based on the responses provided by families and teachers of blind children. Nature of data was based on a scale which would be one of the tools for achieving responses. Answers for survey questions would be provided by using the numerical score. This would help in analysing unfavourable and honourableness of the research being conducted. To achieve percentage analysis, the range of data obtained was reduced from 0 to 100. For making a comparison of data easier, final data will be presented visually. Data analysis was performed by using statistical data analysis tool SPSS. All data were presented by using tables, chart and figures.

Results and Findings

In this section, the results of primary data combined with the results of secondary data which helps in fulfilling the aims and objective of this research as well as answering the research questions of the study.

Frequencies

Table 1:

Notes		
Output Created		13-JUL-2019 04:00:04
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	100
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax	FREQUENCIES VARIABLES=q1 q2 q3 q4 q5 /STATISTICS=STDDEV MEAN MEDIAN MODE /ORDER=ANALYSIS.	
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Statistics

Table 2: Statistical Values (Mean, Median, Mode, and Std. Deviation)

Using concrete examples for teaching blind children helps them gain a much better understanding.	Learning of blind children is improved when using the strategy of the Braille Code.	Learning of blind children by letting them do their work on their own helps in strengthen their learning?	Unifying experiences in learning help blind children to understand concepts.	In Pakistan, there are very less attention given on the curriculum for blind children		
N	Valid	100	100	100	100	100
	Missing	0	0	0	0	0
Mean		3.1200	2.9500	3.0100	2.7300	2.5900
Median		3.0000	3.0000	3.0000	3.0000	3.0000
Mode		4.00	4.00	2.00	4.00	3.00
Std. Deviation		1.47901	1.26631	.98980	1.20483	1.20684

Question No. 1

Table 3: Responses for Question No. 1

Using concrete examples for teaching blind children helps them gain a much better understanding.

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	21	21.0	21.0	21.0
	Agree	17	17.0	17.0	38.0
	Neutral	14	14.0	14.0	52.0
	Disagree	25	25.0	25.0	77.0
	Strongly Disagree	23	23.0	23.0	100.0
	Total	100	100.0	100.0	

The respondents are asked about what techniques can be used to increase the quality of the teaching methods which can be adopted by the teachers who teach blind students. For this, the effective use of concrete examples is being used by the teachers and trainers as well to improve the quality of the learning process and their understanding process as well. Such concrete examples refer to adopt those learning materials through the understanding can be made with the help of senses hold by the blind learners. In this statement, the in-depth understanding and learning which can be made by use of concrete examples are asked. For this, 21% and 17% respondent’s state strongly agree and agree on the response towards this statement. Besides this, 25% and 23% of respondents state Disagree and Strongly Disagree response towards this statement. In addition to this, 14% of respondents state a neutral response to this. Through these ratios of responses, it can say that most of the respondents believe that the use of concrete examples does not bring effectively and improve results towards understanding and learning of blind students.

Question No. 2

Table 4: Responses for Question No. 2

Learning of blind children is improved when using the strategy of the Braille Code.

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	18	18.0	18.0	18.0
	Agree	19	19.0	19.0	37.0
	Neutral	22	22.0	22.0	59.0
	Disagree	32	32.0	32.0	91.0
	Strongly Disagree	9	9.0	9.0	100.0
	Total	100	100.0	100.0	

In this question, the respondents are asked about another learning technique which the teachers and trainers can use to increase the learning process and its quality among the blind teachers. The use of Braille Code for improvement of blind learner understands level is asked. Braille code refers to highlighted and prominent marks and circles which can feel and touch by the blind learners and can make understanding and identification of various words and phrases easily. In this question, the respondents are asked to give their response towards the effects arises over the blind children's learning behaviour by use of braille code. For this, 18% and 19% respondent's state strongly agree and agree on the response towards this statement. Besides this, 32% and 9% of respondents state Disagree and strongly disagree response towards his. In addition to this, 22% respondent's state Neutral response towards this. Thus, a combination response is obtained from the respondent's regarding the use of braille code technique for the learning process of blind children. But most of the respondents give a disagree response towards this statement and state that the use of braille code technique brings no effect towards learning of blind children's learning process.

Question No. 3

Table 5: Responses for Question No. 3

Learning of blind children by letting them do their work on their own helps in strengthen their learning?

	Frequency	Per cent	Valid Percent	Cumulative Percent
Valid Agree	41	41.0	41.0	41.0
Neutral	24	24.0	24.0	65.0
Disagree	28	28.0	28.0	93.0
Strongly Disagree	7	7.0	7.0	100.0
Total	100	100.0	100.0	

In this statement, the respondents are asked about another learning technique which can be used to increase the learning and understanding level among the blind children. For this purpose, the respondents are asked about the self-learning strategy. Through which the children can learn more by their actions, observations through their senses and intuitions and their experiences. The effect of such self-learning brings towards blind children's learning behaviour and learning quality mainly questions in this statement. For this statement, 41% of respondents state Agree with the response. Besides this, 28% and 7% of respondents state Disagree and strongly disagree response towards this statement. In addition to this, 24% of respondents state a Neutral response in this regard. The analysis of respondent's responses indicates that most of the respondents consider that by allowing the blind

children to learn through their own experience and activities, they can learn more effectively and in an in-depth manner which bring long-lasting learning abilities towards them. Through this technique, the quality of learning among blind children can increase effectively and efficiently.

Question No. 4

Table 6: Responses for Question No. 4

Unifying experiences in learning help blind children to understand concepts.

	Frequency	Per cent	Valid Percent	Cumulative Percent
Valid Strongly Agree	23	23.0	23.0	23.0
Agree	17	17.0	17.0	40.0
Neutral	27	27.0	27.0	67.0
Disagree	30	30.0	30.0	97.0
Strongly Disagree	3	3.0	3.0	100.0
Total	100	100.0	100.0	

In this statement, the respondents are asked about the effects bring by unifying learning experiences towards the learning behaviour and quality level of learning among the blind children. Unifying experiences refers to learn through groups of others and by playing in unity. Through which, the interaction of children goes up and increase their knowledge and awareness level. For this, 23% and 17% of respondents give a strong and agree with responses respectively. Besides this, 27% of respondents a neutral response over this. In addition to this, 30% and 3% of respondents state Disagree and strongly disagree response towards this statement. Through this, it becomes clear that most of the respondents believe that playing and learning through unifying experiences will play an important role to improve the learning quality among blind children.

Question No. 5

Table 7: Responses for Question No. 5

In Pakistan, there are very less attention given on the curriculum for blind children

	Frequency	Per cent	Valid Percent	Cumulative Percent
Valid Strongly Agree	24	24.0	24.0	24.0
Agree	23	23.0	23.0	47.0
Neutral	29	29.0	29.0	76.0
Disagree	18	18.0	18.0	94.0
Strongly Disagree	6	6.0	6.0	100.0
Total	100	100.0	100.0	

In this statement, the respondents are asked about the presence of

various courses, curriculum and learning materials available for learning of blind children in Pakistan. Being a developing country, the extent of education facilities and quality of learning material remain questionable all the time. This trend is asked from the respondents. For this, 24% and 23% respondent's state Strongly agree and Agree response toward this statement. Besides this, 18% and 6% of respondents state Disagree and strongly disagree response towards this statement. In addition to this, 29% of respondents state Neutral response towards this statement. The analysis of this question responses indicates that majority of the respondents believe that there is a lack of effective curriculum through which the learning of blind children remain poor and low quality.

DISCUSSION

Problems and Opportunities in the Education of Blind Children

In Pakistan, a growing awareness among teachers, parents, adult community of blinds, and blind youth that current education system intended for blind children and adults is failing to help them learn as a normal child (Awan et al., 2018). It is also true that authorities are not paying attention towards the need of blind children and quality education is not provided to them which can make them prepared to compete in the demanding high-tech economy and society of this 21st Century (McLindne & McCall, 2016). In Pakistan, it is also observed that different learning tactics are not adopted in a learning system which may have led blind children to become successful (Zia, 2019). According to a blog by a blind person in Pakistan, companies do not offer jobs to blind people which hinders or demotivate blind children to learn (Roberts, 2019). Not employing different strategies of learning and neglecting the needs of blind children are causing a negative attitude to be developed towards their blindness which may have a harsh impact on their maturity, responsibility, and personality.

Currently, there are 90 million population of children in Pakistan out of which 1.5 million children are blind that is significantly a great number (Awan et al., 2018). Focusing on their education and learning may have a positive influence on the prosperity of the country. However, certain bodies are working and making efforts to help blind children learn and live their life at fullest such as Child Eye Health Care Facilities at Al Shifa Trust Eye Hospital is among one the famous centres in Pakistan doing effort for blind children. It implies that there are opportunities that blind

children can receive education and learn in the most necessitated manner.

According to the results, it is identified that education and learning facilities provided to blind children in Pakistan are very inadequate which is not allowing a blind child to learn and educate properly in normal schools. Getting education and learning is the basic right of every person either a health child or a disabled one (McLindne & McCall, 2016). But in Pakistan, the entire education system is inadequate (Awan et al., 2018) yet learning opportunities for blind children are very rare and insufficient. Using the strategies that are identified in the literature as part of the curriculum; blind children in Pakistan can also achieve learning and education in the most suitable way.

SUMMARY

The strategies that are identified in the literature review has been reviewed in the questionnaire and its results have shown that concrete experience and braille code holds great effectiveness as per the opinion of teachers and families of blind children however unifying experiences also have great significance for learning of blind children. Besides this, it is also found that blind children are not given attention in Pakistan and its curriculum also requires lots of amendments which would allow children to be competitive as per the need.

CONCLUSION

Learning and education are one of the basic necessity and right of every human being as officially and legally identified. The ratio of blind children in Pakistan is very substantial which suggests that there must be an effective curriculum designed for addressing the learning needs of blind children. However, results suggest that Pakistan has not employed any strategy in its proper manner which is impeding the path of blind children to acquire education and learning. On the other hand, certain bodies such as Child Eye Health Care Facilities at Al Shifa Trust Eye Hospital has been recognised as an opportunity for blind children which provides facilities and measure to combat blindness and work for their causes. Certain recommendations should be followed in Pakistan for developing and implementing strategies particularly for the learning of blind children. The blind children should be given proper time in the presence of their guide or parents so that they may not feel any sort of trouble and express their views and arguments easily and that they could learn with more comfort and ease. The blind children need more attention of teachers and parents,

therefore, the schools should be made near the homes of the blind children so that they can easily reach home and from home to school and their teachers should easily meet their parents without any difficulty regarding their issues and problems.

RECOMMENDATIONS

- ◆ Utilise more than one way to deliver information such as use concrete examples along with audio aid for blind children to let them understand the information in an accurate way.
- ◆ Introduce braille code in every classroom which is why schools should create tactual books that have tactual graphics which help blind children understand the lesson more easily.
- ◆ Incorporate the use of smart scanners and readers which allow blind children to convert documents such as books and hand-outs into speech.
- ◆ Official and authoritative bodies must give attention to amend the curriculum and make it suitable for blind children as well.
- ◆ The number of schools for blind children should be increased and the teachers should be more trained and even the parents of these kids should also be involved in the learning of their children.
- ◆ The packages of the teachers should be doubled so that the teachers teaching at these blind schools could teach with more interest.

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