THE IMPACT OF ORIENTATION AND MOBILITY PROGRAMS ON VISUALLY IMPAIRED STUDENTS OF PUBLIC SCHOOLS IN RAWALPINDI

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Abstract

The impact of the orientation and mobility program on virtually impaired students at public schools is not properly addressed in recent educational research. This provides to assess the use of mobility curriculum for special education of visually impaired students in Pakistan. The involvement of mobility and orientation as elements of special education are considered for the research. Using the quantitative research method, the paper develops a questionnaire instrument for the 250 students at public schools in the city area of Rawalpindi, Pakistan. The Kerjice and Morgan (1970) sample selection formula yields effective results that indicate nurturing situations for visually impaired students. The research finding shows that impaired students can be mobilized with a positive orientation toward higher grades performance in learning. The facilitation provided to visually impaired students with fewer psychological learning barriers results in active classroom participation. It is recommended that psychological counseling be given due preference for orientation and mobility curriculum for visually impaired students.

Keywords: Orientation, Mobility, Visually Impaired Students, Psychological Learning

1. INTRODUCTION

Students who are visually impaired should be taught fundamental, necessary, and technology-based abilities that will enable them to use straightforward, technology-based methods to obtain the information they need for their studies and daily lives. Additionally, it is crucial that students who are visually impaired, as well as others with similar illnesses who require orientation. And mobility (O&M) facilities, receive adequate training in orientation and mobility as soon as possible (Liyanage, 2022). By providing visually impaired students with the necessary orientation and mobility assistance at the appropriate time, we can increase their chances of meaningful participation in a variety of fields. They may find it useful for a variety of training and education purposes, from classroom instruction to extracurricular work (Raymond, 2022). With enough training and practice, these students should be able to navigate a wide variety of academic, professional, and community settings with relative ease once they leave their respective educational institutions. Children who are visually impaired should be able to find and keep jobs, advance in their careers, and participate more fully in community and family life if they receive the appropriate supports ((Liyanage,2022).).

It is vital to take into consideration the requirements of a visually impaired student in terms of facilities for orientation and movement, as well as the appropriate method or approaches. The degree to which essential abilities have been attained needs to be evaluated (Uusiku, 2020). In most cases, it might be accomplished through an evaluation of the subject's motor capabilities, visualization, and expanded position; this evaluation needs to be carried out as soon as it can (Farooq, 2012). According to Stone et.al. (2019). This (Orientation and Mobility) is very important due to the fact that various associations and parents representing the comforts and welfares of visually impaired children have stated that these children are not gaining sufficient orientation and mobility services, and those necessary assessments of their requirements for these facilities are not being guided. This is especially important because of the fact that these children are not obtaining sufficient orientation and mobility services, and those necessary evaluations of their requirements for these facilities are not being steered (WANG, 2022). As the student's individualized education programme (IEP) is developed, the implications of all evaluations managed to the kid, including those designed to regulate the child's academic demands as a result of one or more disabilities other than visual impairment, must be measured in order to put the aforementioned matter into action (Uusiku, 2020).

The purpose of this research is to compare the quality of special education offered to visually impaired students in public and private schools in Lahore, with a focus on the impact of orientation and mobility instruction. Children who are visually impaired or who have any other type of handicap can benefit from the orientation and mobility curriculum in a number of ways (Mayer, 2022). The condition of Pakistan is such that it is one of those countries with a definite educational infrastructure for visually impaired students. Still, it has some ways to go before it can be considered fully developed for pupils who are blind or visually challenged. The education and applied learning of visually impaired children can be a major piece on education through orientation and mobility curriculum, and ignoring this feature would be a very prejudiced and cruel action on the part of the efficacy of a special education programme in Pakistan that focuses on the orientation and mobility abilities of visually impaired students. The current special education curriculum for visually impaired children is deemed successful, operational, and functioning without the inclusion of orientation and mobility instruction for this population. (Li et.al. 2022)

2. LITERATURE REVIEW

According to Ansong (2020), this circumstance presents a difficulty for visually impaired youngsters living in remote areas of Pakistan. The inability alters the manner in which visually impaired youngsters obtain information about their surroundings and restricts their educational opportunities to the observation of visual orientation and mobility curricular components. Special education is a method of learning surrounded by system control and a defined mechanism, primarily designed to meet the academic needs of visually impaired students, as established by research (Ansong (2020). Various researchers of orientation and mobilized educational programmes intervene in the educational learning programme differences. This has emphasized the importance of

special education for all pupils with any form of physical disability (Mulungu, 2022). . Special education is a recognised component of the educational system, and it deserves equal weight. In Pakistan's major cities, however, the situation with regard to special education for children with visual impairments is dire (Chen et.al., 2022). This is what special education entails in terms of learning. Regarding these particular kids, the same extraordinary services, such as orientation and mobility curriculum, as well as special behaviour and preparatory strategies, are applied in order for vision impaired youngsters to feel as though they belong inside the overall prescribed curriculum (Mulungu, 2022).

However, regarding orientation and mobility instruction in the current curriculum, the situation of visually impaired pupils in Pakistan is relatively dire. The curriculum is designed specifically to educate visually challenged students. An orientation and mobility curriculum is an operational component of this curriculum that is correspondingly significant for the special education of visually impaired children (Chen et.al., 2022).

2.1 Inefficient Learner Model

The inefficient learner model gives an optimistic reason for an educational intervention in which the students are told how to deal with their learning problems. Visually impaired students should use both cognitive and metacognitive strategies. It encourages the orientation with mobility programmes where insufficient learning can be managed by the effective outcome. The main ideas that guide the orientation and mobility programme for learners are the same ones that guide the rigid (boring) lessons for kids in schools. This came after the unrecognized reactive and proactive management of the classroom. Too few tests and guizzes are given for effective improvement and to reach goals that aren't realistic. The main concern that is shared as an effective learner strategy is that cramming and highlighting the inefficient learner model are common. The task-appropriate strategy in the classroom may involve motivating students to move toward mobility programmes by directing them. The instructional settings are the arguments that students use when they don't learn something to make up for the curriculum's flaws. The low expectations of students are not helpful for students who are blind or have trouble seeing. The subskills of language shared the possible outcomes for the orientation, where teachers have the specific learning practices to motivate students with disabilities.



Figure 2.1 Conceptual Framework

Source: (Badunenko et al., 2021: Zhang and Su, 2022: Aguilera-Jiménez and Gallardo, 2020)

The supportive area of an inefficient learner model is where orientation and mobility of the learner are limited in the right way. Self-concept, motivation, and performance are all things that make it hard for blind and visually impaired students in public schools to learn actively.

3. METHODOLOGY

The methods used in this study are quantitative and descriptive. The researcher used content validity to create a questionnaire. For the sake of convenience, 250 blind children were drawn from state-run schools in the Pakistani city of Rawalpindi. Students with visual impairments in Lahore were chosen to test the impact of making orientation and mobility instruction mandatory. We settled on the appropriate sample size. Kerjice and Morgan (1970) report a sample size of 250 from Rawalpindi, Pakistan's public schools for the visually impaired. A breakdown of the figures looks like this: Based on age, gender, and level of education, 137 males and 113 females were chosen (ranging in age from five to twenty). Means, frequencies, and percentages were used for descriptive statistics in this study's analysis.

3.1 Procedure of Data Collection

Procedure of Data Collection	Sample
Survey	Public Schools of Rawalpindi City

Features	Frequency N=250	Percentage%
Male	137	67.77
Female	113	32.22
Age		
05-10	75	12.5
10-15	100	35.1
15-20	75	12.5
Distribution Public Schools	250	100
Total	250	100%

Table 1: Frequency

The questionnaire's Cronbach Alpha value was 0.7, indicating high reliability. The questionnaire used in this study had a reliability coefficient of 0.711 across 37 different items. Research instrument reliability was adequate, suggesting that data collected using this tool would be credible.

Descriptive Analysis

Active members are the students who feel change under the special school suits the children. It is educators plan their teachings with the consistent level of educators professionally dexterous with the requirement. The trainer's practice of children experience any change inacademic may be aligned to students and parents satisfied with tepractical approach. The learning and the trainers instructors are guided for the practical interventions.

Variable	S	Number of Items	Cronbach's Alpha		
Orientation		6	0.723		
Mobility		7	0.765		
Cognitive Learning		5	0.79		
Meta-Cognitive Learning		6	0.736		
Reactive M	Notivation	7	0.759		
Proactive Classroom		6	0.856		

Description	Mean	S. D	1	2	3	4	5	6	7
Orientation	4.27	1.53	1						
Mobility	3.40	1.32	0.0331	1					
Cognitive Learning	3.31	1.64	0.0421	0.03931	1				
Meta-Cognitive	5.32	1.09	0.0407	0.2304	0.0412	1			
Reactive Motivation Proactive Classroom	4.01 4.05	1.41 1.63	0.0792 0.0634	-0.0641 0.0621	0.321 0.432	0.0407 0.0324	1 0.0434	1	

Description	Residual Sum of	Degree of Freedom	MS	Number of Observation		250
	Squared					
Model	1772.37377	11	443.093442	F (4, 250	F (4, 250)	
Residual	15903.147	16284	.976611828	Prob. >F		0.0000
Total	17675.5208	16288	1.08518669	R-Squared		.47
				Adj R-Squared		.34
				Root MSE		.98824
	Coefficient	Stander	t-statistics	p-value Confidence		ce Interval
		Error			[95%]	
Orientation	.0499931	.0086846	3.45	0.001	.0129682	.0470139
Mobility	5014162	.0148529	-33.76	0.000	.5305245	.4722914
Cognitive Learning	0085846	.0074288	-1.09	0.577	.0226311	.0064866
Meta-Cognitive	.4994775	.0149226	26.77	0.001	.3702276	.428726
Reactive	0080746	.0074288	-1.09	0.377	.0226311	.0064866
Proactive	.4954675	.0149226	26.77	0.001	.3702276	.4287260
Classroom						

4. RESULTS OF THE STUDY

Nearly 85% of participants said that students with visual impairments who participated in orientation and mobility training benefited greatly from the experience. From the available item-scale responses, 65% were affirmative and 10% were vehemently so. Se75% of the visually impaired students in the study agreed that the orientation and mobility curriculum had helped them understand the majority of the course material in a clear and thorough manner. Their learning rates and general academic performance have improved greatly as a result of the orientation and mobility approach to teaching.

This is a reflection of prevailing communal attitudes in Pakistani society, where limited employment opportunities exist for those with disabilities, especially those with visual impairments. From students' responses to surveys, we know that most of them initially found it difficult to implement the pedagogical procedures outlined in the orientation and mobility curriculum, but that as they became more proficient in using these procedures, they came to appreciate their positive effects on their academic outcomes.

Half of the students who are visually impaired said they felt inferior to their sighted siblings because of their disability. However, after being introduced to orientation and mobility measures, they found that their daily lives became easier and more practical, and they saw a significant difference in their educational experiences. Thirty percent of blind or visually impaired students said they needed more time than expected to master the material covered in orientation and mobility classes. They were frustrated that they weren't able to show significant progress in their academic careers sooner.

Over 80% of parents, educators, and concerned students at special schools for the visually impaired have reported that the curriculum's emphasis on orientation and mobility has helped their children the most. 40% of blind and visually impaired students agreed that their teachers make accommodations for their disabilities in the classroom.15% of the participants stated that they continue to struggle with academic performance in accordance with orientation and mobility curriculum. In this instance, the majority of participants, approximately 55%, agreed to their instructors' scheduled teachings. In contrast, when responding to the other question, fifty percent of the parents and seventy percent of the teachers observed that the current curriculum is pretty consistent with the talents of all the students, albeit with room for improvement. In addition, 90% of educators claimed to be proficient in addressing students with vision impairment. In contrast, 70% of visually challenged youngsters responded positively to the statements made by teachers and parents.

90% of instructors reported use a variety of orientation and mobility tactics to engage with visually impaired students in order to provide a full presentation and lesson. Nearly half of the parents stated that their visually impaired children are taught how to succeed at home despite their disability, and as a result, they have also demonstrated academic success. Eighty percent of the young students reported that they did not have any difficulties while taking notes or moving around the classroom, and their teachers always assisted them when they did.

52% of visually impaired pupils believed that the existing orientation and mobility curriculum structure should undergo more practical changes. While responding to questions regarding the impact and influence of the orientation and mobility curriculum in special education, nearly every student, teacher, and parent determined, in varying proportions, that the orientation and mobility curriculum can have an impact on the overall academic achievement of visually impaired children.

5. DISCUSSION

The primary purpose of this study was to evaluate the effectiveness of orientation and mobility curricula connected with special education for visually impaired pupils in Pakistan. With this in mind, it is possible to claim that visually impaired pupils can benefit from a loving environment when they are free from psychological and financial impediments (Badunenko, 2021). This is an undeniable fact, despite the fact that various educational institutions play a crucial role in providing students with visual impairment with a professional education. Nevertheless, the occurrence of certain dangers deprives these exceptional youngsters of their "Education" elementary privilege. These specialized schools, with the assistance of knowledgeable instructors, can play a significant role in providing visually impaired students with successful learning engagements.

In addition, the purpose of this study was to characterize the emotions of these students while they were enrolled in various educational institutions. Their teachers' and parents' perspectives of this issue were also considered in order to comprehend the reality of the problems visually impaired pupils encounter in Pakistani special schools. It is widely believed that regular schools are not limited in their ability to serve pupils with disabilities, particularly those with visual impairments, but instead provide their extensive facilities to the community. Moreover, revolutionary changes to the curriculum of special education for visually impaired pupils, particularly in the area of orientation and mobility, require a strong political commitment. To this end, the media may play a crucial role in promoting and bringing awareness to this initiative in relation to the challenges faced by students with visual impairment. In order to overcome these obstacles and improve the situation, it is necessary to carefully observe the challenges these pupils confront. Optimistic outcomes are anticipated for their education and curriculum in special education in Pakistan.

6. CONCLUSION

The primary purpose of this research was to analyse the impact of the orientation and mobility curriculum on the academic failure of blind and visually impaired students within the framework of the latest educational curriculum. In light of this objective, it has been determined that the visually impaired children can be advanced from a specific nurturing scenario, during which they face the fewest possible educational, psychological, and socioeconomic challenges. This is a fact that cannot be denied, even if many schools are doing their share to ensure blind children have access to a high-quality education that includes lessons on orientation and mobility. The overall contribution of this marginalised group of students to their educational potential has been dampened, however, by a few accidents. It has also been noted that the academic success of blind students can be significantly improved with specialised instruction based on the orientation and mobility curricular system.

References

- Farooq, M. (2012). Problems faced by Students with Special Needs in Ordinary Pakistani Schools.Journal of Quality and Technology Management, 8 (1), 13-27.
- Khan, I. K., & Behlol, M. G. (2014, June). Inclusive Education at Primary Level: Reality or Phantasm.Journal of Education and Educational Development, 1(1).
- Badunenko, O., Mazrekaj, D., Kumbhakar, S. C., & De Witte, K. (2021). Persistent and transient inefficiency in adult education. Empirical Economics, 60(6), 2925-2942. Liu, S., Zhang, J., & Su, W. (2022). An improved method of identifying learner's behaviors based on deep learning. The Journal of Supercomputing, 1-12.
- Shooli, E., Rahimi Esfahani, F., & Sepehri, M. (2022). Flipped Classroom Influence on the Learner's Outcomes: A Study Based on English Writing Courses in Iran. Education Research International, 2022.
- Aguilera-Jiménez, A., & Gallardo, M. M. P. (2020). Dialogic learning, interactive teaching and cognitive mobilizing patterns. Multidisciplinary Journal of Educational Research, 10(3), 271-294.
- Amponsah, S., & Bekele, T. A. (2022). Exploring strategies for including visually impaired students in online learning. Education and Information Technologies, 1-23.
- DIM, V. H. (2019). A Study of the Use of Learning Aids Materials and Its Impact on Educational Achievement of Students with Visual Impairments (Case Study: Yangon Education Centre for the Blind) (Doctoral dissertation, MERAL Portal).
- NOPALIA, N. (2021). AN ANALYSIS OF TEACHER'S PROBLEMS IN TEACHING ENGLISH TO VISUALLY IMPAIRED STUDENTS AT SLB A PRPCN PALEMBANG.
- Shi, L., Liang, T., & Zhang, L. (2019, August). The Design and Development of Virtual Teaching System based on Action-oriented. In 2019 14th International Conference on Computer Science & Education (ICCSE) (pp. 636-641). IEEE.
- Antunes, A. C., & Silva, C. (2020). Designing for blind users: guidelines for developing mobile apps for supporting navigation of blind people on public transports. In User-Centered Software Development for the Blind and Visually Impaired: Emerging Research and Opportunities (pp. 1-25). IGI Global.
- Zufelt, D. A. (2019). Toward a More Visually Literate Writing Classroom: An Analysis of Visual Communication Pedagogy and Practices.
- WANG, X., & TAKEDA, K. (2022). Survey on Support Needs of Braille-reading Students in Inclusive Higher Education in China. Journal of Inclusive Education, 11, 29-42.
- MANGO, D. R. (2021). Factors influencing implementation of orientation and mobility programme for learners who are blind in selected special primary schools for visual impairment in Kenya (Doctoral dissertation, Maseno University).
- Alanazi, M. S. (2020). Intervention Services for Female Visually Impaired Children in Saudi Arabia: A Qualitative Exploration. Clinical Psychology and Special Education, 9(4), 128-150.
- Ooi, S., Okita, T., & Sano, M. (2020, April). Study on a navigation system for visually impaired persons based on egocentric vision using deep learning. In Proceedings of the 2020 8th International Conference on Communications and Broadband Networking (pp. 68-72).
- Wall, K. (2019). Modern approaches to orientation and mobility: Habilitation and rehabilitation. In The Routledge Handbook of Visual Impairment (pp. 333-359). Routledge.
- Shen, J., Zhao, S., Horn, T., Benkart, R., Busch, T., Vrabec, A., & Taylor, H. G. (2022). Family matters: A systematic review and meta-analysis on the efficacy of family-oriented interventions for children with acquired brain injuries. Clinical Psychology Review, 102218.

- Li, J., Yan, Z., Jarjue, E. H., Shetty, A., & Peng, H. (2022, October). TangibleGrid: Tangible Web Layout Design for Blind Users. In Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology (pp. 1-12).
- Azwar, B. (2022). The Role of the Counseling Teacher in Developing the Social Dimensions of Children with Special Needs. Munaddhomah: Jurnal Manajemen Pendidikan Islam, 3(2), 126-138.
- Mosola, L. L. (2020). Enhancing teachers' self-efficacy for supporting visually-impaired learners in Lesotho schools through school support networks (Doctoral dissertation, University of the Free State).
- De, S., & Cavanaugh, G. (2020). Navigating healthcare science student learning and engagement through implementation of a virtual classroom.
- Lustosa, F. G., & Ribeiro, D. M. (2020). Inclusion of students with disabilities in higher education: demands of a reconfiguration of knowledge, conceptions and teaching practices.
- Mayer, Y., Shalev, M., Nimmon, L., Krupa, T., Bulk, L. Y., Battalova, A. ... & Jarus, T. (2022). Social support experiences of students and clinicians with disabilities in health professions. Advances in Health Sciences Education, 1-21.
- Liyanage, C. (2022). Inclusivity of children with disabilities and downsides of welfare-oriented service delivery system in Sri Lanka with special reference to rural areas in Galle district. University of Colombo Review, 3(1).
- Raymond, J. (2022). HOW DOES LEARNING ANTI-RACIST EDUCATION THROUGH CRITICAL PROFESSIONAL DEVELOPMENT AND ARTS-BASED INQUIRY CONTRIBUTE TO TEACHERS'UNDERSTANDINGS OF THEIR CLASSROOM PRACTICE? (Doctoral dissertation, University of Saskatchewan).
- Uusiku, W. A. (2020). Experiences of adult learners with visual impairment in adult education programme: A case of upper primary phase in Omusati region, Namibia (Doctoral dissertation, University of Namibia).
- Chen, L., Chen, Z., & Xu, X. (2022). The value, key and path of cultivating college students' spirit of voluntary service in colleges and universities. Journal of Education and Educational Research, 1(2), 87-92.
- Mulungu, M. A. (2022). Collaborative Partnerships and Strategies to Promote Effective Transitions and Support for Students with Disability: The Role of Parent Groups in Malawi. In Transition Programs for Children and Youth with Diverse Needs. Emerald Publishing Limited.
- Stone, B. W., Kay, D., & Reynolds, A. (2019). Teaching visually impaired college students in introductory statistics. Journal of Statistics Education, 27(3), 225-237.
- Metatla, O., Oldfield, A., Ahmed, T., Vafeas, A., & Miglani, S. (2019, May). Voice user interfaces in schools: Co-designing for inclusion with visually-impaired and sighted pupils. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (pp. 1-15).
- Ansong-Gyimah, K. (2020). Students' Perceptions and Continuous Intention to Use E-Learning Systems: The Case of Google Classroom. International Journal of Emerging Technologies in Learning (iJET), 15(11), 236-244.
- Sari, A. C., Fadillah, A. M., Jonathan, J., & Prabowo, M. R. D. (2019). Interactive gamification learning media application for blind children using android smartphone in Indonesia. Procedia Computer Science, 157, 589-595.
- Choi, J., Jung, S., Park, D. G., Choo, J., & Elmqvist, N. (2019, June). Visualizing for the non-visual: Enabling the visually impaired to use visualization. In Computer Graphics Forum (Vol. 38, No. 3, pp. 249-260).

- Hopkins, S., Narayanasamy, S., Vincent, S. J., Sampson, G. P., & Wood, J. M. (2020). Do reduced visual acuity and refractive error affect classroom performance? Clinical and Experimental Optometry, 103(3), 278-289.
- Maryanti, R., Nandiyanto, A. B. D., Hufad, A., & Sunardi, S. (2021). Science education for students with special needs in Indonesia: From definition, systematic review, education system, to curriculum. Indonesian Journal of Community and Special Needs Education, 1(1), 1-8.
- Wang, R., Yu, C., Yang, X. D., He, W., & Shi, Y. (2019, May). EarTouch: facilitating smartphone use for visually impaired people in mobile and public scenarios. In Proceedings of the 2019 chi conference on human factors in computing systems (pp. 1-13).
- Bai, J., Liu, Z., Lin, Y., Li, Y., Lian, S., & Liu, D. (2019). Wearable travel aid for environment perception and navigation of visually impaired people. Electronics, 8(6), 697.
- Wolff, C. E., Jarodzka, H., & Boshuizen, H. P. (2021). Classroom management scripts: A theoretical model contrasting expert and novice teachers' knowledge and awareness of classroom events. Educational Psychology Review, 33, 131-148.
- Haegele, J. A. (2019). Inclusion illusion: Questioning the inclusiveness of integrated physical education: 2019 national association for Kinesiology in higher education Hally Beth Poindexter young scholar address. Quest, 71(4), 387-397.