NAVIGATING POSSIBILITIES: A STUDY OF ASSISTIVE TECHNOLOGY AWARENESS AND ACCESS AMONG STUDENTS WITH DISABILITIES IN A SPECIAL SCHOOL

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ABOUT ARTICLE

Abstract: This study investigates the levels of awareness and access to assistive technology among students with disabilities in a special school setting. Drawing upon a mixed-methods research approach, including surveys and interviews, it examines the extent to which students with disabilities are informed about and have the means to use assistive technology. The findings shed light on the potential for technology to empower students with disabilities, bridging educational gaps and enhancing their overall learning experiences.

INTRODUCTION

In the realm of education, inclusivity and accessibility are fundamental principles that underscore the importance of providing equitable opportunities for all learners. This imperative holds particularly true for students with disabilities, whose educational experiences can be significantly enhanced through the thoughtful integration of assistive technology. In the pursuit of fostering an inclusive learning environment, it is essential to assess the levels of awareness and access to assistive technology among students with disabilities.

This study embarks on a journey of exploration, seeking to understand the landscape of assistive technology awareness and access among students with disabilities within the unique context of a special school. These educational institutions are dedicated to serving students with a range of disabilities, offering tailored support and resources to facilitate their learning journeys.

The integration of assistive technology into the educational ecosystem has the potential to empower students with disabilities, providing them with tools and resources to navigate their educational possibilities more effectively. However, the realization of this potential hinges on two critical factors: awareness and access.

Awareness entails the knowledge and understanding of the existence and utility of assistive technology. Without awareness, even the most sophisticated tools remain underutilized. Access, on the other hand,

pertains to the physical availability and affordability of assistive technology solutions. It involves ensuring that students with disabilities have equitable opportunities to acquire and utilize these tools to support their learning and participation in the educational process.

Against this backdrop, this study employs a mixed-methods research approach to assess the levels of awareness and access to assistive technology among students with disabilities in a special school setting. Through surveys and interviews, we delve into the perspectives of both students and educators to gain a holistic understanding of the current landscape.

The findings of this study hold the potential to inform educational policies and practices, promoting greater inclusivity and accessibility for students with disabilities. By understanding the awareness levels, needs, and challenges related to assistive technology, we can navigate the possibilities of a more inclusive and empowering educational experience for all students, regardless of their abilities.

METHOD

Research Design:

To comprehensively investigate the levels of awareness and access to assistive technology among students with disabilities in a special school, this study employs a mixed-methods research design. This approach combines quantitative and qualitative data collection methods to provide a holistic understanding of the subject.

Data Collection:

Surveys: A structured survey was administered to students with disabilities within the special school. The survey included questions about their awareness of assistive technology, their experiences with its usage, and any challenges they encountered. Additionally, questions about their access to assistive technology tools and resources were included. The survey aimed to quantify the levels of awareness and access among the student population.

In-Depth Interviews: In-depth interviews were conducted with a select group of students with disabilities to gather qualitative insights. These interviews allowed students to share their personal experiences, challenges, and aspirations related to assistive technology. Open-ended questions were used to encourage detailed responses and to explore nuanced perspectives.

Educator Interviews: Interviews were also conducted with educators and staff members at the special school. These interviews focused on their perspectives regarding the awareness and access levels of assistive technology among students. Additionally, educators provided insights into the support structures in place to facilitate the use of assistive technology.

Sampling:

A purposive sampling strategy was employed to select participants for interviews, ensuring representation from different disability categories and age groups among the student population. Educators and staff members with expertise in disability education were also included in the sample.

Ethical Considerations:

Ethical considerations were paramount throughout the research process. Informed consent was obtained from all participants, and their identities were kept confidential. The research team also ensured sensitivity to the unique needs and experiences of students with disabilities, adapting the research approach to accommodate diverse communication styles and accessibility requirements.

Data Analysis:

Quantitative data from the surveys were analyzed using statistical software to identify trends and patterns in awareness and access levels. Qualitative data from interviews were analyzed thematically

to extract key themes, challenges, and opportunities related to assistive technology awareness and access among students with disabilities in the special school.

By combining these research methods, this study aims to provide a comprehensive picture of the current landscape and pave the way for informed strategies to enhance awareness and access to assistive technology, ultimately empowering students with disabilities in their educational journeys.

RESULTS

The study on assistive technology awareness and access among students with disabilities in a special school produced several key findings:

Diverse Levels of Awareness: Survey responses indicated that awareness of assistive technology among students with disabilities in the special school varied significantly. While some students displayed a comprehensive understanding of available assistive tools and resources, others had limited awareness or knowledge of these options.

Challenges in Access: Access to assistive technology was influenced by multiple factors. Financial constraints were a notable barrier, with some students and their families unable to afford specialized devices or software. Limited availability of assistive technology resources within the school also posed challenges. Moreover, the study identified the need for tailored training and ongoing support to ensure effective use of assistive technology tools.

Positive Educator Engagement: Interviews with educators and special education staff revealed a strong commitment to promoting awareness and facilitating access to assistive technology. Many educators recognized the potential of these tools to enhance the learning experiences of students with disabilities and actively sought to integrate them into classroom activities.

Desire for More Resources: A common theme among both students and educators was the desire for additional resources and support in the form of training, funding, and access to a wider range of assistive technology options. Respondents expressed a need for more comprehensive and sustained efforts to address these needs effectively.

These results underscore the complex landscape of assistive technology awareness and access among students with disabilities in the special school. While some students are well-informed and equipped with the necessary tools, others face significant barriers that hinder their access to these beneficial resources. The commitment of educators to bridge this gap is a promising sign, but there is a clear call for greater support and resources to ensure that all students with disabilities have equitable opportunities to navigate the possibilities that assistive technology offers in their educational journeys.

DISCUSSION

The findings underscore the importance of recognizing the heterogeneity among students with disabilities regarding their awareness and access to assistive technology. Acknowledging this diversity is crucial in tailoring support and resources to meet individual needs effectively.

The challenges identified in access, particularly related to financial constraints and device availability, highlight areas where additional support and investment are needed. Collaborative efforts between educational institutions, policymakers, and advocacy groups may contribute to mitigating these challenges.

Educator engagement and commitment to supporting students in their awareness and use of assistive technology are promising indicators. Leveraging this commitment through professional development opportunities and collaborative initiatives can further empower students.

CONCLUSION

In conclusion, this study provides valuable insights into the awareness and access to assistive technology among students with disabilities in a special school. The findings emphasize the importance of a nuanced approach that recognizes the diversity among students and addresses the specific challenges they face.

To navigate the possibilities effectively, there is a need for a multifaceted approach involving educators, administrators, policymakers, and advocates. By fostering awareness, improving access, and providing tailored support, the educational community can empower students with disabilities to leverage assistive technology effectively in their pursuit of learning and personal growth.

This study serves as a foundation for future research and initiatives aimed at enhancing the educational experiences of students with disabilities through the thoughtful integration of assistive technology. Ultimately, it is a testament to the potential for technology to break down barriers and promote inclusivity in education.

REFERENCES

1. Albrecht G, Seelman K, Bury M. Handbook of Disability Studies. London, Sage, 2001, 125-131. DOI: http://dx.doi.org/10.4135/9781412976251

2. Alkahtani, K. (2013). Teachers' Knowledge and Use of Assistive Technology for Students with Special Educational Needs. Journal of Studies in Education, 3(2), 65-86. https://doi.org/10.5296/jse.v3i2.3424

3. Blackhurst, A. E. (2005). Historical perspective about technology applications for people with disabilities. Edyburn, D., Higgins, K., and Boone, R. (eds.) Handbook of Special Education Technology Research and Practice, pp 3–29. Whitefish Bay, WI: Knowledge by Design

4. Boot, F.H., Ghosh, R., Dinsmore, J.G. and MacLachLan, M., 2021. Views and Experiences of People with Intellectual Disabilities to Improve Access to Assistive Technology: Perspectives from India. Disability, CBR & Inclusive Development, 31(4), pp.40–65. DOI: http://doi.org/10.47985/dcidj.423

5. Borg, J., Ekman, B.O., & Östergren, P-O. (2017). Is centrebased provision of hearing aids better than community-based provision? A cluster-randomized trial among adolescents in Bangladesh. Disability and Rehabilitation: Assistive Technology.

6. Ghosh, Ritu. & Raman, Lakshmi. (2019). Mobility India. Proceedings of the National Conference of Assistive Technology for All 2030, Bengaluru, India. http://mobility-india.org/wp-content/uploads/2020/01/National-Conference-on- Assistive-Technology-for-All-2030-Proceedings.pdf

7. Government of India (2015). Sustainable Development Goals. National Indicator Framework Baseline Report.

8. http://mospi.nic.in/sites/default/files/publication_reports/SDG_Baseline_report_4.3.2019_0. pdf [Accessed on 15 Nov2020]