European Journal of Humanities and Educational Advancements (EJHEA)
Available Online at: https://www.scholarzest.com
Vol. 4 No. 2, February, 2023
ISSN: 2660-5589

AN ANALYTICAL STUDY ON THE USE OF ASSISTIVE TECHNOLOGY IN TEACHING DIFFERENTLY ABLED CHILDREN

Tolipova Ranokhon Ikrom kizi
Phd student of Sharda University, Education
2021821709.ranokhon@dr.sharda.ac.in
MD. Mehtab Alam
Doctor of Holly Family
Alam.mehtab5@gmail.com

Article history:

Received: December 11th 2022
Accepted: January 11th 2023
Published: February 20th 2023

Abstract:

This paper establishes inclusive education, developing and teaching Assistive Technology for Differently Abled Children. The influence of assistive technology (AT) on scholastic and psychological results for students with disabilities in school is examined in this review of the research. According to the World Report on Impairment, 2-5% of the global population has significant difficulty functioning without the help of assistive technology, whereas 17% of the population worldwide lives with some disability. The prevalence of disability is frequently under-reported in Low- and Middle-Income Countries, as detailed below. When assistive technology is used effectively, governments in underdeveloped nations may support inclusive education by assisting students with impairments. This study explores the research topic, "How can AT be utilized effectively for children with various abilities?" To close the research gap in this area. It placed a focus on training materials for instructors that would help kids with learning impairments stand to benefit financially from using assistive technology tools, whether in the classroom or at home, to make the teaching-learning process fun and effective. It also emphasised the need of helping kids with learning difficulties choose the appropriate digital tools to help them achieve their objectives. It was noted that employing assistive technology may provide difficulties for emerging countries. It concluded that assistive technology could enhance lives and eliminate learning challenges.

People's preferences, viewpoints, and goals are fundamental to establishing and measuring the effectiveness of AT. The value and significance of AT for each individual must be understood individually and holistically. This means adopting a universal model viewpoint, putting the individual first in their context, and then considering the condition and technology. To put people at the center of AT systems, this paper places them there and emphasizes their importance. To do this, we highlight individual meanings and perspectives on AT use and look at the roles that advocacy, empowerment, and co-design play in creating and advancing AT procedures.

Keywords: Assistive Technology, teaching, Differently Abled children, special education

1. INTRODUCTION

Humans can now live long, healthy lives that are productive, independent, and dignified, as well as participate in civic, educational, and employment activities. The need for long-term care, formal health and assistance services, and assistive technology reduces the caregiver's labor. Human beings typically feel alienated, alone, and trapped in poverty without assistive technology. As a result, the impact of illness and disability on an individual, their family, and society increases. With the help of organizations that finance us and those that provide AT services, the benefits or outcomes of AT have been seen as evident [3]. As a result, there is now a relative gap in the evidence on the impact of AT on essential outcomes like participation and extraordinary existence [4], but there is also other evidence.

In the words of the World Health Organization (WHO) (AT), assistive technology refers to a wide range of products, services, and delivery mechanisms for assistive goods and goods-in-need. The functionality and independence of a person are maintained or improved by assistive devices, which is good for their well-being.

Assistive products include, among other things, prosthetic devices, walkers, communication aids, eyeglasses, prostheses, prescriptions, and cognitive activities [7,8].

Lack of regular physical, mental, or psychological functioning is a common way to define the differently abled. According to another definition of the condition, a person's typical growth and development may be impeded by learning challenges or issues with social adjustment.

In the USA (state of Los Angeles) Democratic National Committee accepted the terminology differently abled and, in the UK, disabled. The background about the language Differently abled is a polite way to describe someone with a disability. (Cambridge dictionary, 2022).

According to the World Report on Impairment, 2-5% of the global population has significant difficulty functioning without the help of assistive technology, whereas 17% of the population worldwide lives with some disability. The prevalence of disability is frequently under-reported in Low- and Middle-Income Countries, as detailed below (in section Context: PWD and AT policies) (LMICs). By 2050, the number of individuals with disabilities is expected to double, according to a WHO estimate [2].

Several factors include a dearth of faculty members with knowledge in AT, space constraints, AT receiving less attention in teacher training programs because of a lack of resources, a lack of materials in the curriculum, and a bad image. (Judge & Simms, 2009; Michaels & McDermott, 2010). Additionally, teachers may encounter challenges in selecting software applications that meet the requirements of their students, as well as practical challenges in facilitating the use of AT by all students in their classroom. Along with subject-matter expertise and pedagogical experience, technical abilities must be included in teacher training programs. Student teachers may acquire the skills essential for choosing, aiding, and effectively using AT with their future students through repeated exposure across courses and technologies, primarily if AT-related hands-on experiences are provided.

2. LITERATURE REVIEW

Binoy Mathew K (2018), the researcher, explored the inclusion criteria satisfied by 34 of the 137 studies. Assistive technology is being developed in India, as evidenced by the study results. The feasibility or prototype stages are where many of the goods are. It highlights the necessity of extensive field research before launching the commercial manufacture of assistive devices. The empowerment of people with disabilities will result from such activities. Regarding this, the writers make several recommendations.

Amit Sadh (2020), the researcher, examined that making it more straightforward for people with disabilities to live and work around their impairments is considered assistive technology (AT). Regarding persons with visual impairment, the Braille watch is AT and enables them to keep track of the time. Therefore, we could draw the conclusion that AT is essential for a visually impaired child's scholastic achievement or general quality of life. With this, VI may use their abilities, participate in the learning environment, and use these technologies without assisting others. For blind or visually impaired pupils, the Rights of Persons with Disabilities Act, 2020requirements for assistive technology are essential. Several investigations discovered that in India's rural as opposed to metropolitan areas, less technology (AT) is used.

Patricia Kwalzoom LONGPOE3(2019), the researcher, explored a variety of assistive technology tools created and employed to help kids with learning impairments with their written language, reading, hearing, memory, and math difficulties. It clarified the need to choose the appropriate technological tools for kids with learning difficulties to obtain the desired results. The use of assistive technology tools by children with learning difficulties, whether in the classroom or at home, was highlighted in instructional guidelines for classroom instructors to make the teaching-learning process fun and effective. Using assistive technology may provide difficulties for underdeveloped countries, it was claimed. It concluded that assistive technology could enhance people's lives.

Katherine Mc Knight (2016), the scientist, examined a study on using digital learning tactics by instructors to enhance and alter students' learning. They compared this use to studies in the area of learning. In seven model schools around the country, we held focus groups, conducted interviews, and went from classroom to classroom. The instructors' comfort level, familiarity, and technology usage were also questioned. We identify five roles technology plays in enhancing teaching and learning, record six common tactics employed across seven locations, and explore the advantages instructors and students gain from using these strategies.

The researchers Stacy Branham, Cynthia Bennett, and Erin Brady (2021) looked at how to build assistive technology with an emphasis on dependency, a framework meant to complement the field's usual emphasis on independence. Researchers were creating the groundwork for this framework through popular media produced by current disability rights activists and scholarly works from the academic field of disability studies. Then, using examples from our work, we demonstrate how the interdependence frame synthesizes results from an expanding body of research in the field of assistive technology and directs us toward new prospects for technology design. Researchers viewed interdependence as one potential direction for research and design practice rather than a prescription. This offers new design opportunities and reaffirms our commitment to providing persons with disabilities with equitable access to all areas of society.

3. CONCLUSION

To completely integrate humans at the center of AT systems, this position paper offers some potential future directions. Individual and frequently complicated wants and preferences exist for each person. Assistive goods provide interfaces between a person and the life they want to live. According to studies on this topic, information and communications technology (ICT) and assistive technology (AT) can significantly and positively impact how kids with special needs are educated.

Furthermore, by offering computer-supported tools, technology can assist students with learning impairments in compensating for learning difficulties, mainly writing. In addition, this technology may enhance productivity in the home and school by reducing irritation, boosting motivation, encouraging a sense of acceptance from peers, and more. Individual students' access to technology in the classrooms must be increased via collaborative planning teams. Team members are expected to evaluate the effectiveness of existing technologies and monitor kids personally to ensure that any adjustments are made to consider the kids' increasing abilities. This assistive device might be a means of removing obstacles to learning for every child who has a learning disability.

However, we must stress that solving individual problems alone won't result in a successful deployment. This is why we offer a list of stakeholder roles and activities and an organized method to deploy assistive technology from the standpoint of inclusive education. Access to technology is undoubtedly a severe issue in and of itself. But because donors are now supporting sectors rather than projects as part of a relatively new approach to foreign aid, it is crucial to get past the stage of policy creation and embrace a systematic strategy. Future studies can examine how other developing nations employing AT for inclusive education might profit from our suggested systematic approach.

REFERENCES

1. Amhag, L., Hellström, L., Stigmar & Martin (2019) "Teacher Educators' Use of Digital Tools and Needs for Digital Competence in Higher Education." *Journal of Digital Learning in Teacher Education.*
2. Banoo, J. & Vaida, N. (2017) Comparative study on the physical deformity and hearing impairment of adolescents based on home, social, school and emotional adjustment *International Journal of Innovative Research and Review* ISSN: 2347 – 4424
3. Bosit.O.& Zakhidov(2020), Childhood blindness in Uzbekistan, *Eye* 13(1), 65–70
4. Graham, Linda. 2019. "Inclusive Education for the 21st Century." *Education Studies & Teaching* 1(1) 1-9.
5. Dreon O., Kerper M. R. and Landis J. (2021) "Digital Storytelling: A Tool for Teaching and Learning in the YouTube Generation." Middle school Journal 42 (5).
6. Laila El Baradei, (2021) The Role of Egyptian Non-Governmental Organizations in Integrating the Differently Abled, Developments in Administration, 3, 77-89
7. Mei, Xiang Ying, Aas, Endre, Medgard, Magnhild (2019) "Teachers' use of digital learning tool for teaching in higher education." *Journal of Applied Research in Higher Education*. 1(1)
8. Simonetta P., Zingale M., Trubia,G. Finocchiaro, M. Ferri,R.Z.R. Elia,M. (2009) "Special Education Versus Inclusive Education: The Role of the TEACH Program." *Journal of Autism and Developmental Disorders* 39(1)
9. Ramdinmawii (2017) A Descriptive Study to Assess the Level of Stress, Social Support and Life Satisfaction among Parents of Children with Autism Spectrum Disorder at Selected Centres in Delhi, DOI Number: 10.5958/0974-9357.2017.00058.7
10. Rose R., Howley, M. 2017. "The Practical Guide to Special Educational Needs in Inclusive Primary Classrooms (Primary Guides)." *Education* (SAGE Publications Ltd) 1(1)144-145.
11. Tripathi, D. (2020) Study of Facilities available in the School for Differently Abled Children Ilkogretim Online - Elementary Education Online, 19 (3), 2266-2270