


## Chapter 8

# Role of Rehabilitation in Equipping Differently–Abled Children With Assistive Devices for Inclusive Education

**Kriti Mishra**

 <https://orcid.org/0000-0002-0047-5933>  
*Independent Researcher, UK*

**Nitha J.**

*Sree Chitra Tirunal Institute for Medical Science and Technology, India*

### ABSTRACT

*Differently abled students, in recent decades, have options of exploring their abilities by overcoming their impairments and limitations through usage of assistive technology (AT). A collaborative effort of technological researchers, educationists, healthcare providers, policy makers, etc. is required in facilitating accessibility and utilization of these assistive technological tools and devices by these children. Rehabilitation professionals have an important role in promoting usage of these devices and thereby optimizing these children's abilities. The chapter therefore takes a glance at the role of medical rehabilitation professionals in equipping these differently abled children with AT for an inclusive education set-up and helping them become a part of the mainstream community. These are illustrated using common scenarios seen in medical rehabilitation institutions. Lastly, the chapter incorporates the challenges in providing and using these devices for differently abled children with a focus on developing countries.*

DOI: 10.4018/978-1-7998-4736-6.ch008

## **INTRODUCTION**

*A seven year old male child with no obvious issues or illnesses disliked going to school, to the extent that he was afraid of his teachers. On asking, mother said he is scared that teacher will hit him for wrong spellings in English lessons and incorrect arithmetic questions. She elaborated how the child had been performing poorly in school, in spite of taking extra lessons after class. While interacting with the child, it was observed that the child was quite observant and figured out a color box kept aside in a cupboard. He even enjoyed painting using those colors and thereafter, playing computer games, involving finding hidden artefacts and hitting the ball. This clearly indicated the child's ability to focus and comprehend specific tasks. The child continued to get poor marks, leading to constant failing in class exams. The author explained to the mother regarding the learning impairment that the child was displaying and the rehab team during home visit made a few suggestions to the mother of how to teach the child using different applications and resources. However, the limited resources and the belief that child is being naughty and disinterested in studies, made the mother decline the suggestions. She even replied that this was what God wills and that the little child can grow somehow and join in father's factory someday.*

Situations as these are not uncommon in community. Education of differently-abled (DA) children requires an awareness of the abilities of these children along with ways to harness this potential and a motivation to adopt those ways in day to day lives. The society as a whole has a collective responsibility to ensure that these children are as much a part of the community as others (Ahmad, 2015). Since rehabilitation professionals have the clinical acumen and knowledge to explore the abilities of these children, they are in a unique position to facilitate the combined efforts of care-givers, educationists, policy makers, non-profitable organizations, technological innovators, marketing personals etc. in making the available educational opportunities conducive for these children. One of the ways in which they can assist is by recommending appropriate assistive technology (AT) equipment and devices along with relevant training to these children and their care-givers at the rehabilitation units. These devices can enable the DA students not only to attain education, but also make learning process smoother and enjoyable one (UKEssays, 2018). Therefore, the chapter aims to explore the role of rehabilitation professionals in equipping the DA children with suitable AT and thereby, addressing the issues faced by them at the educational institutions. A few clinical examples and scenarios that are commonly seen in day to day practice of the rehabilitation physicians are illustrated to support the above. The chapter further highlights the barriers in adoption of AT devices by the DA children, as observed in the clinical experience of the authors. Lastly, it concludes

32 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/role-of-rehabilitation-in-equipping-differently-abled-children-with-assistive-devices-for-inclusive-education/305468](http://www.igi-global.com/chapter/role-of-rehabilitation-in-equipping-differently-abled-children-with-assistive-devices-for-inclusive-education/305468)

## Related Content

---

### Teaching Executive Functions, Self-Management, and Ethical Decision-Making through Popular Videogame Play

Randy Kulman, Gary Stoner, Louis Ruffolo, Stephanie Marshall, Jennifer Slater, Amanda Dyland Alice Cheng (2014). *Assistive Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 771-785).

[www.irma-international.org/chapter/teaching-executive-functions-self-management-and-ethical-decision-making-through-popular-videogame-play/80643](http://www.irma-international.org/chapter/teaching-executive-functions-self-management-and-ethical-decision-making-through-popular-videogame-play/80643)

### Nascent Access Technologies for Individuals with Severe Motor Impairments

Sarah Power, Saba Moghimi, Brian Nhanand Tom Chau (2014). *Assistive Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 720-739).

[www.irma-international.org/chapter/nascent-access-technologies-for-individuals-with-severe-motor-impairments/80640](http://www.irma-international.org/chapter/nascent-access-technologies-for-individuals-with-severe-motor-impairments/80640)

### Design and Control of a Hand-Assist Robot with Multiple Degrees of Freedom for Rehabilitation Therapy

Haruhisa Kawasaki, Satoshi Ueki, Satoshi Itoand Tetsuya Mouri (2016). *Virtual Reality Enhanced Robotic Systems for Disability Rehabilitation* (pp. 199-234).

[www.irma-international.org/chapter/design-and-control-of-a-hand-assist-robot-with-multiple-degrees-of-freedom-for-rehabilitation-therapy/143484](http://www.irma-international.org/chapter/design-and-control-of-a-hand-assist-robot-with-multiple-degrees-of-freedom-for-rehabilitation-therapy/143484)

### Accessibility Implementation for Disabled Students in PMBOLD Environments

Henry C. Alphin (2014). *Assistive Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 1173-1195).

[www.irma-international.org/chapter/accessibility-implementation-for-disabled-students-in-pmbold-environments/80667](http://www.irma-international.org/chapter/accessibility-implementation-for-disabled-students-in-pmbold-environments/80667)

## Selecting Computer-Mediated Interventions to Support the Social and Emotional Development of Individuals with Autism Spectrum Disorder

Kristen Gillespie-Lynch, Patricia J. Brooks, Christina Shane-Simpson, Naomi Love Gaggi, Deborah Sturmand Bertram O. Ploog (2015). *Recent Advances in Assistive Technologies to Support Children with Developmental Disorders* (pp. 141-167).

[www.irma-international.org/chapter/selecting-computer-mediated-interventions-to-support-the-social-and-emotional-development-of-individuals-with-autism-spectrum-disorder/131333](http://www.irma-international.org/chapter/selecting-computer-mediated-interventions-to-support-the-social-and-emotional-development-of-individuals-with-autism-spectrum-disorder/131333)