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Assistive Technology: A Veritable Tool in Rehabilitating Persons with Special Needs

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Abstract

Rehabilitation of persons with special needs requires holistic remediated and adjustment tools (strategies) which would accommodate the use of assistive, adaptive and rehabilitative devices, structurally designed to promote greater independence. These tools and strategies; commonly referred to as assistive technology would enable persons with special needs perform tasks that they were formerly unable to do or those ones they do with difficulty. Thus, comprehensive use of assistive technology provides the necessary enhancements to, or changing methods of interacting with the technology needed to accomplish any required task(s). Assistive technology would also enhance the process of rehabilitation and psycho-social adjustments as well as educational cum vocational performance of persons with special needs. Therefore, this paper highlights the kinds of rehabilitation options towards resolving the attendant educational, vocational and socio-emotional problems due to disabilities. The paper concludes with relevance of assistive technology as a veritable tools in rehabilitating persons with special needs. It also encourages comprehensive use of assistive technology as a complementary service-delivery mechanism in all the rehabilitation programmes and centres.

Keywords: Assistive technology, Disability, Persons with special needs, Rehabilitation

Introduction

ehabilitation of people with special needs is a process aimed at enabling individuals with disabilities to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Rehabilitation provides people with special needs with the tools they need to attain independence and self-determination. World Health Organisation International Classification of Functioning, Disability and Health (ICF, 2002) explained rehabilitation as a goal-oriented process, with aim of enabling persons with special needs to reach an optimum mental, physical and/or social functional level thereby providing them with the tools required to change their lives. In the same vein, rehabilitation can be described as a process of re-gaining skills, knowledge or abilities that may have been lost or compromised as a result of a kind(s) of disabilities; acquiring a special need, or due to a change(s) in an individual's physiological or cognitive make-up (WHO, 2016).

Rehabilitation is a kind of comprehensive or holistic approach towards addressing and resolving effects of deficit-loss, improving competencies, and facilitating optimal functioning in order to provide the greatest possible measure of social and economic participation, self-reliance and independence. Thus, in order to achieve the set objectives of rehabilitation as a kind of holistic mechanism to enable people with special needs attain an expected level of independence and functional use of their remediated sensorial functions, the use of assistive technologies; which are devices meant to improve the functional capabilities of these categories of people special needs (IDEA, 2004) becomes an essential complementary tools to aid rehabilitation programmes. To this end, for an effective and purposeful rehabilitation services for people with special needs the complementary gains of assistive technologies should be incorporated or integrated into the process of rehabilitation. The incorporation of assistive technology will help the process of rehabilitation of individuals with special needs. It will also aid access to the required rehabilitative cum health services, educational and vocational services, recreational services, and psycho-social relationship.

Types of Rehabilitation

There are different types of rehabilitation structured to help restore individual with disabilities to reach and maintain optimal physical, sensory, intellectual, physiological and social functional levels. The types are listed below as follows:

During hospital stay

Rehabilitation during hospital stay happens immediately after a major event, such as after surgery or upon detection of a special need. Rehabilitation during hospital stay occurs in the first few days or weeks of a patient's recovery. This kind of rehabilitation exercise will typically involve the rehabilitation specialist (as deem fit) to come to a patient's room and perform an evaluation shortly after surgery to determine if any therapy is required. If so, the therapist will visit the patient's room on a regular schedule to help the patient begin the process of therapy, and the amount of time the therapist can spend with each patient will likely be limited to less than an hour per day, because hospitals are simply not set up for longer term (and more intense) therapy. Once a patient does not require hospital care they are typically either sent home or to a dedicated rehabilitation facility (Department of Health, 1996; WHO, 2010).

In-patient rehabilitation

For patients who recover to the point that they no longer need the level of care provided by an hospital, but they are still not capable of living unassisted life, an in-patient rehabilitation facility is often recommended for such patients. This kind of rehabilitation is often similar to an hospital-stay kind of rehabilitation, but it offers the opportunity for longer-term rehabilitation than the average hospital-stay where beds are at a premium.

During the stay at an inpatient rehabilitation facility, the physician that is in charge of patient's care is often a physiatrist. A physiatrist is a physician that specialises in the area of physical medicine and rehabilitation (National Institute of Health, 2014). The focus of this kind of rehabilitation is on restoring functions to patients. Some common areas of specialty for a physiatrist are sports, medicine, pediatrics, geriatric medicine and brain injury (NIH,

2014; NCGS, 2012). Physiatrist may treat the patient directly, by prescribing any needed medication, or may lead an interdisciplinary team towards resolving impediments associated with disabilities and channelling a model of overcoming such. Therefore, the physiatrist may meet with all of the different types of therapists that are treating the patient at periodic intervals such as once a week, to determine the patient's progress, and to assess continuing and evolving needs. This group, led by the physiatrist, will make recommendations as to how to treat the patient(NIH, 2014; Reeves, Soeren, Macmillan, Zwarenstein, 2013).

Out-patient Rehabilitation

Once the patient has recovered enough to go home from either the hospital or the inpatient rehabilitation facility, he or she will often be given some amount of outpatient rehabilitation. This is most often provided at a rehabilitation facility that the patient will travel to a few times a week, but it can also be in-home (Reeves, Soeren, Macmillan, Zwarenstein, 2013; NIH, 2014). Out-patient rehabilitation is a kind of follow-up service in rehabilitation programme, and it provides an avenue for evaluation of the treatment (rehabilitation) given and determination of the level of compliance on the part of patient(s) to the medical advice (Osisanya, 2016).

Rehabilitation of persons with special needs, according to their category is explained further:

Rehabilitation of Persons with Visual Impairment

Vision rehabilitation is the process of treatment and education that helps individuals with visual impairment to attain maximum function, a sense of well-being, a personally satisfying level of independence, and optimum quality of life (AOA, 2004). Function is maximised by evaluation, diagnosis and treatment, but not limited to, the prescription of optical, nonoptical, electronic and/or other treatments, it includes the development of an individual rehabilitation plan, specifying clinical therapy and/or instruction in compensatory approaches. The term "vision rehabilitation" also includes a wide range of professional services that can restore functioning after vision loss, just as physical therapy restores function after a stroke or other injury. Vision rehabilitation services allow people who are blind or with low vision to continue to live independently and maintain quality of life. Vision rehabilitation may be necessitated by any condition, disease, or injury that causes a visual impairment or brings about functional limitation or disability. In addition to the evaluation, diagnosis and management of visual impairment by an eye care physician (optometrist or ophthalmologist), vision rehabilitation may include (but is not limited to) optometric. medical, allied health, social, educational and psychological services (AOA, 2004; Fletcher and Barton, 2012).

Vision Rehabilitation Services include:

- Communication skills: these include teaching the individual with visual impairment how to read, write, use braille, and other assistive computer technology.
- Counselling services: these are meant to help the individual with visual impairment, their spouse, family members, and friends adjust to their vision loss.
- Independent living and personal management skills: these are services including home
 modifications, home mechanics and repair, personal self-care, financial management,
 leisure activities, and using the telephone and other home electrical/ electronic

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appliances.

- Independent movement and travel skills: these include orienting the individual with visual impairment in indoor and outdoor environment, moving about safely indoors, using transportation, and travelling safely outdoors with a long white cane or other device.
- Low vision evaluations and training with low vision devices: these are training in the
 use of hand-held magnifiers, special reading glasses, telescopes, high intensity lamps,
 and other optical and non-optical devices that can make the best use of remaining vision.
- Vocational rehabilitation: these are services in vocational evaluation and training, job training, job modification and restructuring, and job placement (AOA, 2004; Fletcher and Barton, 2012).

Rehabilitation of Persons with Learning Disabilities

Rehabilitation of persons with specific learning difficulties usually starts with identifying the specific learning difficulties the person presents with, and developing appropriate rehabilitative strategies to manage such. Identifying the learning difficulties involves looking at the impact of the functional limitations on the ability to perform, maintain or prepare for appropriate work, which must be commensurate with ability and capacity, focusing on work and/or learning task, and considering barriers to completing post-secondary training, needed to prepare for appropriate work (Raskind, 2000).

Rehabilitation services for persons with learning disabilities include:

- Counselling services: these are meant to caution the effect of the learning disability on the individual's attitude and performance in academics, and career plan.
- Transition services: these are provided to the individual with an identified learning disability while transiting from a level of schooling to another, which will require additional academic demands, and accommodation plans.
- Vocational services: these are provided often-time, alongside the counselling services to enable the individual plan a career outside of academics.

Rehabilitation of Persons with Intellectual Disability

Persons with intellectual disability can benefit from social welfare and education programmes, and can both benefit from and contribute to a workplace, but may however need somewhat different facilities in the social welfare, education, and employment sectors than do those without an intellectual disability. The rehabilitation options for persons with intellectual disability includes physical therapy, by engaging them in physical activities; physiotherapy; psychotherapy, in which the individuals are engaged in unscripted plays dealing with their specific problem areas; and nutritional therapy (Lo. Presti and M. Kirsch, 2004).

Rehabilitation of Persons with Hearing Impairment

Rehabilitation of persons with hearing impairment aimed at working on a process of identifying, through behavioural and electro-physiological measurement of hearing acuity; diagnosing and classifying the observed hearing impairment, providing different types of therapies with the use of specified amplification devices (Campbell, 1997; Ross & Tomasetti, 1980).

Rehabilitation of persons with hearing impairment includes:

 Medical/ Audiological assessment: these are meant to detect changes in hearing/sensation level, and classifying persons with hearing impairment according to degree, nature and type; recommend appropriate medication (if need be), and making placement on the appropriate adjustive programmes/services.

2. Aural rehabilitation: this is a kind of process to habilitate or rehabilitate persons with

hearing impairment, and this process starts with:

(a) Hearing-aid selection and orientation, by making recommendation for an appropriate amplification device(s) to make sound audible enough for them to perceive (Ross and Tomasetti, 1980).

(b) Listening training strategies- these are aimed at improving the overall communication abilities of persons with hearing impairment. This will educate and guide them in making use of alternative listening strategies to complement

their sense of hearing.

(c) Auditory training-this involves giving a kind of systematic training on how best to make use of their residual hearing ability to recognize speech sounds, patterns, words, phrases or sentences through audition (Nicolossi, Harryman and Kresheck, 2003).

(d) Speech reading: this is the teaching or process of speech (communication) understanding using visual cues observed from the speaker's mouth, facial expressions to improve the overall general health physical and psychological

well-being, quality of life, and improved daily-living activities.

(e) Speech therapy: this is aimed at developing or improving speech and language skills, as well as oral-motor abilities of persons with hearing impairment. The therapy will build adequate language skills in them through good auditory

feedback, learning of new words, and improved listening capacity.

(f) Hearing conservation; this is meant to preserve or conserve the hearing ability, and to sustain the auditory performance towards perception of sounds, understanding and discrimination of varied sounds in the human environment. (g) S c h o o 1/j o b placement; this is structured to place persons with hearing impairment on appropriate job/school, in line with the degree/nature of hearing impairment involved.

(h) Counselling/follow-up services: these are aimed towards offering counselling practices to enable persons with hearing impairment evolve a positive mind in facing the challenges occasioned by their hearing impairment. This will enable them develop positive adjustive mind and necessary communication skills based on the outcome of an effective follow-up (Ross &Tomasetti, 1980; Campbell, 1997).

Rehabilitation Services for Persons with Speech and Language Disorders

Rehabilitation of persons with either speech or language disorders always start with proper and adequate assessment, classification and determination of the therapeutic options, as well as consideration/management of associated challenges. Thus, speech/language rehabilitation involves the management and treatment of various conditions affecting a person's ability to speak, communicate, eat and drink (CIGS, 2012; Lemos et al., 2009).

Speech and language rehabilitation makes provisions for comprehensive evaluation and treatment for all speech, language, voice and swallowing deficits. The rehabilitative options include multi-disciplinary approach; carefully-selected therapeutic programmes; development of a specific treatment plan, based on the type, nature, and degree of the disorder(s) and persons involved. This kind of rehabilitation is extensive, and usually done to remediate the disorder, help to meet the learning/psychosocial needs, and to support the overall well-being of the individual involved, irrespective of age, sex and status (Raskind, 2000; CIGS, 2012).

Speech-language rehabilitation is tailored to a specific person, in the sense that each individual with speech or language disorder receive personalized treatment and care in form of therapy. This kind of rehabilitation (therapy) is designed to influence maximum recovery from the impairment. Also, it involves neurological treatment, training to compensate for the disorders, therapies to bring back the ability to communicate (speak), person and family education. Rehabilitation of persons with speech/language disorders focuses on individual therapy sessions, with a variety of therapy activities; development of psycho-social strategies to overcome or cope with the challenges, and multi-disciplinary treatment involving occupational therapy, physiotherapy, nutritional experts, and other health professionals (Nicolossi, Harryman and Kresheck, 2003).

Vocational Rehabilitation

Vocational rehabilitation could be described as a dynamic process consisting of a series of actions and activities that follow a logical, sequential progression of services related to the total needs of a person with a special need (Chan, Reid, Kaskel, Roldan, Rahim and Mpofu, 1997) The process begins with the initial case finding or referral, and ends with the successful placement of the individual in employment or on a job (vocation). According to the United Nations Convention on the Rights of Persons with Disabilities (2008) comprehensive rehabilitation services should include health, employment, education and social services to enable Persons with Special Needs to attain and maintain maximum independence, full physical, mental, social and vocational ability, and full inclusion and participation in all aspects of life. Therefore, vocational rehabilitation programmes are essential to help persons with disabilities prepare for, find and keep job. This work-related services should be individualized, and may include counselling, treatment and training, provision of assistive devices, job placement assistance, and other services meant to enable them achieve the highest level of function, independence and quality of life possible (Chan, et al., 1997).

Occupational Rehabilitation

Occupational therapy is a kind of therapy that is aimed at improving an individual's ability to carry out the everyday activities that have been hitherto affected by illnesses, injury, surgery or a special need(Hemmingson, Lietstrom and Nygard, 2009). The rehabilitation focuses specifically on the needs of the patient to be able to work, as well as engage in the daily living tasks such as grooming and household care. If a patient had a weakness in the fingers for example, an occupational therapy will evaluate the ways in which this patient needs to use those fingers in their daily life and work, as well as to help them adapt or devise means of using the fingers. The rehabilitation is a combination of rebuilding the deficits and finding

works suitable to the individual, as he/she continues to perform the needed task. An occupational therapist might prescribe adaptations to the patient's home or work environment such as handrails, modified shower, lowered counters, etc. Typical inpatient facilities have kitchens, bathrooms, and work environments in which they help the patient practice the life skills that they will need. The essence of occupational rehabilitation is to improve the whole exercise of rehabilitation, education, training, employment opportunities, and outcomes of individuals with disabilities. It also aimed at building and sustaining high level of independence, better living standards, providing economic security, and social inclusion, access to physical and mental health in persons with disabilities (Hemmingson, Lietstrom, and Nygard, 2009).

Sports and Recreational Rehabilitation

This is a kind of rehabilitation services or activities, through adapted sports and recreation model(s) to develop or enhance the ability of persons with disabilities towards participating in sport, or using sport to compensate for the lost ability in other areas of human endeavor. Sports and recreational rehabilitation services are meant to rehabilitate persons with disabilities overcome state of depression, loneliness, loss of confidence, and a kind of belief that their lives have ended.

Thus, sports and recreational rehabilitation provides the opportunity or an avenue to reunite persons with disabilities with family and friends, or other individuals with disabilities in a shared activity. This kind of rehabilitation would help to improve the overall general health, physical and psychological well-being, quality of life, and improved daily-living activities (Scherer and Stefano, 2012).

Spiritual Rehabilitation

This is a kind of rehabilitation aimed at strengthening both the body and mind of persons with disabilities, as well as looking unto God for divine rehabilitation. Spiritual rehabilitation is based on the efficacy of the word of God, miracles, and testimonies. With this kind of rehabilitation, persons with disabilities are made to go through counselling, short sermons, and prayer sessions to build sound faith in God, and sustained relationship with God in them. Ministering to persons with disabilities provides an venue for spiritual development and wholistic rehabilitation (Kaye &Raghavan, 2002).

Concept of Assistive Technology

Assistive technology (AT) represents several devices, tools and strategies structurally designed to support individuals with disabilities. Assistive technology is devised to promote greater independence, as well as to enable persons with special needs to perform tasks that they were formerly unable to do or those ones they do with difficulty.

Assistive technology, which is known as technology related assistance actconnotes array of tools and strategies designed, and used to support persons with disabilities (Tech Act, 1988). Assistive technology (AT) is being referred to as a term used to describe various devices designed and used by persons with disabilities to compensate for the loss capability to function normally. The AT are specially designed products, facilities, and gadgets meant to compensate for functional limitation, as well as to increase, maintain, or improve functional

capabilities of individuals with disabilities. These devices are tools for services meant to increase learning, independence, mobility, communication, environmental control/choice (Copel,1991). Assistive technology explains the different models, devices and services used for adaptive and rehabilitative purposes in making life comfortable for persons with disabilities. Assistive technology includes services for evaluation, design, customization, adaptation, maintenance, repair, therapy and training or technical assistance (Sharp, 2002). Assistive technology supports persons with disabilities to complete tasks independently or with less help in areas such as mobility, communication, vision, utilisation of limbs and reasoning capability, home/community living, lifelong activities learning, employment, health and wellness (Scherer and Stefano, 2012). In essence, AT provides the necessary enhancements to, or changing methods of interacting with the technology needed to accomplish any required tasks. (Evmenova, Ault, Bausch and Warger). In fact, with the introduction and practice of inclusive education model across the globe, assistive technology has become a versatile tool to encourage the participation of the individuals with disabilities.

Importance of Assistive Technology in Rehabilitating Persons with Special Needs

Assistive technology devices are the kinds of adaptive strategies to enhance learning, psycho-social relationship, and productivity of persons with disabilities. Also, AT makes persons with disabilities to feel comfortable and enjoy classroom interactions, as well as providing both the teachers and learners the privilege of having a successful learning environment (Hemmingson, Lietstrom and Nygard, 2009). AT devices make persons with disabilities to overcome barriers towards independence and inclusion.

Other benefits of AT to persons with disabilities are given below as highlighted by Tech Act (1988); Sharp (2002); Copel (1991); Scherer & Stefano (2012).

- Assistive technology devices are well designed products/gadgets meant to promote
 independence and interest in learning and psycho-social development, as well as to
 enable persons with disabilities live and perform almost independently on tasks which
 could have been difficult or impossible to accomplish without the use of such facilities.
- Assistive technology devices are designed, structured and encouraged to be used in improving additional/alternative accessibility of information, knowledge and skills to persons with disabilities, irrespective of the nature, types and degrees of the involved disabilities.
- Assistive technology; when used for learning purposes provides a platform to enhance readiness, participation and cooperation of persons with disabilities in the classroom settings. Also, the AT devices enhance proper understanding and acquisition of the taught skills and concepts.
- 4. Assistive technology helps to enhance or improve the functional capabilities of persons with disabilities, which hitherto rendered useless (worthless) before the advent of various categories of these adaptive technologies specially designed to increase as well as to maintain the functional and reasoning capabilities of everyone, with or without disabilities.
- Assistive technology makes the given task or expected assignment to be performed with ease by the person with disabilities.
- 6. Assistive technology gives persons with disabilities the opportunity and privilege to

- enjoy live and make meaning out of life, as the devices always help them fit into any expected systems; if the required adaptive technology is made available.
- Assistive technology devices help to increase the probability of classroom success for
 persons with disabilities. It also keeps the teacher of person with disabilities abreast
 with current skills, knowledge and facilities to enhance learning with.
- 8. Assistive technology serves as devices used for compensation over any type(s) of disabilities. The devices are specifically designed to differently compensate for any kind of disabilities. For instance, ramps, automatic door openers, grasp bars, etc. can be used to provide improved access for individuals with physical disability. Assistive listening devices (ALDs) can be used to enhance hearing ability of persons with hearing loss. Magnifiers and Braille embossers could be used to create access for persons with visual impairment; while brain storming/mapping, speech synthesizers and grammar checkers (proof reading programmes) can be used to help persons with learning disabilities.
- Assistive technology could also help to resolve difficulties due to disabilities and other relayed psycho-social challenges.
- Assistive technology devices are specially designed facilities or models to resolve specific deficits or challenges.
- 11. Assistive technology helps persons with disabilities reach their full potential, live satisfying and rewarding lives.
- Assistive technology devices help to build persons with disabilities work around their difficulties/challenges by focusing on their areas of strength and weaknesses or difficulties.

Types of Assistive Technology for Rehabilitative Services

The common types of assistive technology are listed below:

Assistive Listening Devices

Assistive listening devices are kinds of AT specifically designed and used to enhance the auditory functions of persons with hearing loss, by receiving distant auditory inputs, amplify and transmit the signal to the ear of the listeners.

ALDs are commonly used to boost hearing ability mostly for persons with hard of hearing in perceiving speech sounds from television, personal playing functions, public address system, and life communication within the home or classroom setting. ALDs include personal FM system, personalised pupil-teacher/therapist amplification system, personal ear level or desktop and classroom sound gadgets(Lemos, Jacob, Gajeo, Bevilacqua, Feniman and Ferrari, 2009; CISG, 2012).

Hearing Aids

These are the categories of various small electronic devices normally wear in or behind the ear to receive, amplify (by making sounds louder), transmit the received sounds within the environment to persons with hearing loss and thus enable them to hear more in both quiet and noisy situations. Hearing aids also empowers persons with hearing loss to enjoy communication and participate more fully in daily activities as well as making them having improved hearing speech communication (Ross &Tomasetti, 1980; Campbell, 1997).

Mobility Aids

Mobility aids such as wheel chairs, canes scooters, crutches, walkers, prosthetic devices and other orthotic devices are specially designed and encouraged to be used by individuals with physical disabilities. These aids are meant to enhance physical mobility of persons with physical challenges, and to create access towards performing mobility related activities of daily living such as bathing, dressing, feeding, and toileting (Raskind, 2000).

Devices to compensate for Visual Impairment

Devices such as Braille, Braille embossers, screen magnifiers, speech synthesers, type-writers, talking browsers, JAWS computer software, and hardware, low vision aid, (LVA) and closed circuit television (CCTV) are designed to assist the individuals with visual impairment. These devices and services are meant to alleviate all hindrances to learning, acquisition of the required skills and knowledge as well as observed barriers and limitations against the normal functioning of persons with visual challenges (Evmenova et al., 2012).

Cognitive Support Technologies

These are the devices designed to provide cognitive assistance to persons with intellectual disabilities or learning challenges. Cognitive support technologies include computer software or hardware, electrical/electronic assistive devices meant to help individuals with cognitive problems due to brain injury (Raskind, 2000).

Organisational Memory Technologies

Organisational and memory assistive technologies are such devices and software packages or electronic organisers meant to provide a means to store and easily retrieve large amount of personal information (AOA, 2004; Fletcher and Barton, 2012).

Reading Technologies

Those assistive technology devices include optical character recognition, reading poems, screen review system and tape recorder. Reading technologies are designed to help persons with reading difficulties and those who could achieve better speech understanding/comprehension through hearing (Scherer & Stefano, 2012).

Written Technologies

Written Technologies include computer-based writing system, spells checker tools, speech recognition system, proofreading programmes, outlining programmes, alternative computer keyboards and brain storming package. These devices and packages are specially designed to provide a means for people with learning difficulty to accomplish specific task on their own and develop ability to function properly on any reading task (Chubon and Hester, 1988).

Computer Assisted Instruction (CAI)

Computer assisted instruction are the several excellent science-based software package meant for students with disabilities as a supplement to traditional instruction (Christmann, Badgett, Lucking, 1997). The CAI are structurally designed applications and services to enable students with disabilities feel comfortable and experience more success in classroom environment.

Sport and Recreation Adaptive Technologies

Sport and recreation technologies are the array of devices designed to enable those who love sport among persons with disabilities to participate in adaptive sports where an existing sport is modified to persons with disabilities participating (Beukelman and Mirenda, 2005). Adaptive sports facilities include racing wheel chair and talking foot balls used by persons with visual impairment for recreation and sporting activities.

Conclusion

The incorporation of assistive technology in to the rehabilitation process of persons with special needs has become a versatile tool and adaptive strategy to enhance the corporation and participation of all categories of persons with special needs in the rehabilitation process. In fact the use of assistive technology has also enrich the rehabilitation service options for persons with special needs, irrespective of age, nature of disability, level of socio-emotional adjustment, cultural/religious prejudices and level of exposure involved.

Integrating assistive technology into the process of rehabilitation has become a means of holistic adaptive and rehabilitative mechanism in making life comfortable for persons with special needs. This act has helped tremendously in enhancing the physical and socioemotional adjustment skills, learning, psychosocial relationship, intra and interrelationships and productivity of persons with special needs across the globe. Consequently, with the introduction and practice of inclusive educational model, the incorporation of assistive technology into rehabilitation process has become a veritable tool to elicit and encourage the participation of persons with special needs without much ado. Thus, in rehabilitating persons with special needs, as one of the best practices across the globe, the need to integrate the use of assistive technology has become a necessity as a complimentary resource - service tools, and thus should be considered as essential veritable tools in the holistic rehabilitation process for persons with special needs.

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