KIU KIJHUS KIU Interdisciplinary Journal of Humanities and Social Sciences

NEXUS BETWEEN ICT AND INCLUSIVE EDUCATION: CHALLENGES AND PROSPECTS

Muhammad Muhammad Suleiman[1]
Garba Umar Bebeji[2]
Zahra Kyari Muhammad[3]

[1,2,3]Kano State Polytechnic, Nigeria

*corresponding author: muhddkd@gmail.com

Citation: Suleiman, M.M., Bebeji, G.U. & Muhammad, Z.K. (2021). Nexus Between ICT and Inclusive Education: Challenges and Prospects. *KIU Interdisciplinary Journal of Humanities and Social Sciences, 2*(1), 262-

ABSTRACT

The importance of inclusive education in the development of a nation cannot be overstated. Developing countries face several roadblocks as they work to implement Inclusive Education (IE). The effective use of information and communication technologies (ICT) in developing countries will assist governments in achieving equitable education by assisting women, orphans, and children with disabilities in schools. Despite the importance and positive impact of Information Communication Technologies (ICT), previous research on ICT's use in inclusive education, particularly in developing countries, has been severely limited. By alluding to the concept of Universal Access to Education, this text examines the topic of school consideration. It focuses on ICTs' solid ability to keep a strategic distance from any form of separation among understudies. The paper also claims that educators play a critical role in maximizing the opportunities provided by emerging technology to aid the complete integration of all students into traditional educational frameworks. Educators should be aware of the ICT potentials, and they should have the option to secure the necessary information and operational abilities to choose and use these types of assets properly. For the current social orders, ICT and consideration provide a space of exceptional rational enthusiasm. At this time, teachers' attitudes toward ICT play a critical role in the complete adoption of Inclusive Education.

Keywords: Inclusive Education, ICT, SEN, Assistive Technologies (AT), UNESCO

INTRODUCTION

Education has long been a part of human growth, and it plays a critical role in providing individuals and societies with the skills and information they need to determine their life goals. Flora cited in (Koissaba, 2017) claims that Any community's educational levels decide the type of facilities, business opportunities, and work types, all of which affect the community's educational levels (Koissaba, 2017).

Students have the right to an equal education regardless of their gender, ethnicity, colour, ethnic or social background, genetic features, language, religion or belief, political or other opinions, membership in a national minority, land, birth, or disability Klironomos et al., cited in (Benigno et al., 2007), and to be seen as an important member of the learning community The definition of "inclusion" has increasingly replaced that of "integration" as a result of the recognition of this right (Benigno et al., 2007).

Throughout the 1980s, the definition of integration was based on the differentiation between “normal” students and those with special needs (requiring special educational interventions); the concept of integration means that the school remains the same but acts to accommodate students who have a range of challenges or difficulties. Northway, as cited in (Benigno et al., 2007).

Mechanical advances in the course of the most recent couple of years have assisted the integration and variation of individuals with uncommon necessities in all fields of work. these advances permit individuals with this issue to add to the work market subsequently developing a more independent life for themselves (Alcantud, Avila and Asensi; Martin-Labora) cited in (Suri, 2011). one of the main zones where the utilization of ICT is significant is in the field of schooling. In this specific situation, the utilization of ICT is vital as it assumes a fundamental part in supporting excellent schooling for students with handicaps and SEN (Suri, 2011).

Inclusive education means that all understudies are studying in the same classroom regardless of their solidarity or weakness or any discrimination in any area. It is a teaching or learning strategy which allows the understudies learning like non-disable and disabled understudy in a single classroom climate (Benigno et al., 2007), (ICT IN An Inclusive Education: The Benefits: Post-Doctoral Fellow of ICSSR, Department of Education, Central University of Tamilnadu, Thiruvarur, n.d.). Inclusive education alludes to the inclusion of all the understudies independent of their sex, race, shading, destitution, disability and they have given equal an open door in education and to be considered as being an integral part of the learning local area (Das, 2020), (ICT IN An Inclusive Education: The Benefits: Post-Doctoral Fellow of ICSSR, Department of Education, Central University of Tamilnadu, Thiruvarur, n.d.). Kugelmass cited in [4] defined inclusive education as "It is an education which includes the kids with disabilities in the regular classrooms that have been intended for youngsters without disabilities" (Fernandez-Batanero & Colmenero-Ruiz, 2016).

“Inclusive Education - according to UNESCO- means that the school can provide a good education to all pupils irrespective of their varying abilities. All children will be treated with respect and ensured equal opportunities to learn together. Inclusive

education is an on-going process. Teachers must work actively and deliberately to reach its goals" UNESCO cited in (Volpe, 2016). All students have the right to have equal opportunity in education (EADSNE; United Nations; UNESCO) cited in (Volpe, 2016). and to be considered as being an integral part of the learning community. Recognition of this right has recently given rise to the concept of "inclusion", which in Italy has gradually substituted that of "integration" Della Volpe cited in (Volpe, 2016).

ICT or Information and Communication Technologies are technological apparatuses and assets used to communicate, and to create, disseminate, store, and manage information. These advancements include PCs, the Internet, broadcasting innovations (radio and TV), phone, cell phones and other latest gadgets (Marín-Díaz, 2018), (Suleiman, M. M. Surajo, Aminu Zubairu Matinja, 2020). ICT can be defined as an aggregate of hardware and software assets specifically utilized for sharing, storing, generating information by making utilization of various means of innovation available. It is not quite the same as e-learning which is a cycle that involves the application of these ICT devices to enhance the teaching-learning measure (Information and Communication Technology for E-Regions, 2011). Thus, we can say that ICT is a helpful apparatus for education and has the potential to profit learners at any stage enormously. Several types of research have been led in the last decade specifically to show the importance and utilities of ICT in education and research. It also illuminates how to utilize these for producing more proficient learning (Marín-Díaz, 2018), (Suleiman, M. M. Surajo, Aminu Zubairu Matinja, 2020).

It is demonstrated that ICT is an added value for the education of the majority of understudies in regular school with or without special necessities, endeavours being made, to prepare all schools and understudies with PCs and internet associations, yet the importance of ICT, which are for understudies with special educational requirements on their utilization, it isn't known whether they have these instruments in the classroom (Suri, 2011).

There is sufficient proof to help the fact that, when applied appropriately under a favourable learning climate at the ideal time, ICT will in general be an essential instrument that supports teaching and learning in the public secondary schools across Adamawa State (Gadzama & Jatau, 2019). The two classifications of ICT in education has remained the centre of all PC related training and disciplines in all facet of education all through the world. For the most part, ICT innovation is utilized in coaching and training the secondary teachers on how best to apply ICT in teaching Olakulehin cited in (Gadzama & Jatau, 2019). Both the ICT as an Educational teaching-aid and ICT adoption in Education remains a compelling ingredient for an effective introduction and application of ICT in teaching, coaching and learning

openly and government-claimed secondary schools across Adamawa State (Gadzama & Jatau, 2019).

Presently moving towards the idea of productive teaching, we know the fact that effective teaching is straightforwardly related to proficient learning and calls for a democratic and inclusive climate where all learners learn together and pretty much acquire those levels or standards of learning absent a lot of contrast. India is a land of variety (Marín-Díaz, 2018). Culture, economy, language, society and even emotional criteria are distinctive in better places of India and these varieties are clearly reflected in classrooms as well. Accordingly, a teacher in an Indian classroom especially should know about the ways to deal and cater to these distinctions in classrooms and carries the duty of removing the various types of emotional, cultural, language, social, and financial barriers of learning with a reason to realize inclusion in its real essence. Presently let us see the idea of inclusive education in detail (Marín-Díaz, 2018).

Concepts

Information and Communication Technology and Inclusive Education

Information and Communication Technology comprises a broad range of technical apparatuses and administrations used to create, archive, interact, disseminate, and handle information. Enhanced openness and abilities to such innovations are changing nations ' economies by creativity in the turn of events and circulation of assets and producing new business people Jorgenson and Vu cited in (Suleiman, Muhammad Muhammad B/Zuwo, Haruna Salihu Babayo, 2020). ICT also can be defined as "anything which allows us to get information, to communicate with each other, or to have an impact on the climate using electronic or digital gear" (Bolstad et al., 2004). The Internet has been depicted as one of the main generators of business Castells, cited in (Suleiman, Muhammad Muhammad B/Zuwo, Haruna Salihu Babayo, 2020).

Iwu and Ike cited in (Suleiman, M. M. Surajo, Aminu Zubairu Matinja, 2020) portrayed ICT as the assortment, processing, and conveyance of a discourse, practical; textual, and numerical information through a microelectronic combination of computing and telecommunications. ICT is essentially the utilization of PC based information and communication advances to gather, store, and transfer data. It explains exciting and innovative ways to give understudies global access to information, learning, and backing Iwu and Nzeako cited in (Suleiman, M. M. Surajo, Aminu Zubairu Matinja, 2020).

ICT, in its various structures, are said to overcome any issues and allow inclusion for

understudies with special educational requirements Brodin; Gillette; Skoldatateket; SPSM cited (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). Improvement in the area of information-and communication innovation is fast and new technological gadgets and programs are introduced each day. Schools make huge investments in current information and communication innovation. ICT could allow understudies with special educational should be included in classrooms with their classmates, and assistive innovation may help understudies to a greater degree reach the goals of their education Brodin; Gillette cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). Several examinations point to that ICT could assist understudies with special educational requirements, especially understudies with reading-and/or writing disabilities through word processors, word expectation programs, spell and grammar checks, voice acknowledgment, text-to-discourse programs, planning and organizing devices and so on Anderson, Anderson and Cherup; Maor, Curie and Drewry; Peterson, cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). ICT appears to have advantages for understudies with special educational requirements and assistive innovation gadgets may be utilized by understudies within their classes and in that way can advance inclusion (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012).

The utilization of ICT for understudies with special educational requirements is interesting from a special educational viewpoint since a goal for the special education teacher is to recognize, analyze and participate in anticipation and in endeavours to eliminate barriers and troubles in various learning conditions (SFS 2007:638) cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). The part of the special education teacher in the area of ICT for understudies with special educational necessities varies. Nonetheless, in request to finish the goal from the degree targets above, it is of interest to investigate teachers' discernments on ICT for understudies with special educational necessities and the issue of inclusion in request to help the teachers who meet and work with the understudies in school consistently. This fast-changing world, with new educational programs and a rapidly growing ICT market, places a heavy obligation on the teachers' shoulders (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). Adapting teaching for all understudies is a perplexing task, and teaching understudies who utilize assistive innovation make new

demands on teachers. An inclusive school requires teachers not exclusively to follow the educational program and alter teaching to address the issues, everything being equal, yet in addition to be in the know regarding new innovation and integrate innovation with substance and pedagogy (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012).

The Inclusion Education

A lexical definition for the term inclusion is "the act or practice of including students with disabilities in regular school classes" Merriam-Webster cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). The term inclusion has been given a prominent place when speaking about special needs education. Traditionally the term integration was used earlier which refers to children being abnormal and should be fitted into set structures. Inclusion emphasizes that education should be based on students' differences Carlsson & Nilholm cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). According to the Salamanca Statement UNESCO cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012), inclusion is about providing education for all children, young people and adults within the regular education system. An international definition of inclusion according to UNESCO cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012) is;

"Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children. UNESCO cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012)".

Inclusive education means that all understudies attend and are invited by the schools in age-appropriate, regular classes and are upheld to learn, contribute and participate in all aspects of the existence of the schools regardless of their sex, shading, destitution, disability and so on It is a new approach to teaching where all

the understudies are welcome to mainstream society. In an inclusive classroom, youngsters with special need understudies are allowed to seek after their education along with normal kids (Das, 2020), (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). In India, NCERT joined hands with UNICEF and launched a venture for Integrated Education for a disabled kid in the year 1987 to integrated the disabled learner into the normal classroom. NCF 2005 is also offered importance to inclusive education to encounter poise and give certainty to learn (Das, 2020), (Developing the Use of ICT to Enhance Teaching and Learning in East African Schools: Review of the Literature, 2010).

Inclusive education is a relatively controversial theme for many parents and educators. The idea behind inclusive education is that understudies with special necessities will be placed in the same classroom climate as different understudies their age who don't have special requirements. Within inclusive education (Marín-Díaz, 2018). There are two (2) main branches of thinking:

a) Mainstreaming inclusion: It is an interaction that allows kids with special necessities to enter certain standard classrooms after they show the ability to stay aware of the remainder of their companions (Marín-Díaz, 2018).

b) Full inclusion: Puts understudies with special requirements in standard classroom conditions without testing or demonstration of abilities. Individuals that help full inclusion believe that all kids belong in the same classroom climate regardless of what (Marín-Díaz, 2018).

ICT for Students with Special Educational Needs (SEN)

ICT could be beneficial for understudies with special educational necessities, especially understudies with reading-and/or writing disabilities through assistive innovation, for example, word processors, word expectation programs, spell and grammar checks, voice acknowledgement, text-to-discourse programs, planning and organizing apparatuses and so on (Maor, Currie and Drewry; Peterson-Karlan; Williams, Jamali and Nicholas) cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012).

In a British literature survey by Williams et al. cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012) information on the apparent benefits of ICT in SEN was gathered from literature, government reports and academic journals in the fields of education, information science and social science. The investigation upholds that

dyslexics are the gathering with special educational requirements who potentially could obtain many benefits from ICT through reading and writing PC programs. Nonetheless, by assisting access to learning, ICT can also bring benefits to understudies with emotional and behavioural troubles (a.a.) (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012).

Adapting innovation for each understudy ICT could be a powerful apparatus for understudies with special educational necessities, but it is important to perceive understudies' individual requirements and adapt the innovation for each understudy according to a research audit over the viability of ICT for understudies with special educational necessities have been made by Australian researchers Maor et al. cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). Scientific examinations from the last six years about assistive innovation for reading, writing, spelling and discourse have been chosen and analyzed. The greater part of the investigations was from the US but concentrates from Scandinavia, UK and Israel were also included. No general ends could be drawn about which program is the best because an excessive number of various programs were included in the audit. The majority of the outcomes show that understudies writing, reading or spelling improve by using assistive innovation. However, there were special cases, where ICT had no impact or understudies' outcomes even deteriorated when using ICT: A determination the researchers make is that understudies have individual contrasts and the assistive innovation gadgets should be adapted to each understudy's individual necessities. The requirements of the understudy and the understudy's family ought not to be ignored, and the family ought to be counselled before assistive innovation is introduced. Complicated plan, sudden expense and lack of technical help can lead to IT abandonment (a.a.) (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012).

Effective ICT integration in education may require an individual plan for each understudy that centres around the understudy's need and if the PC ought to be utilized as an educational device, an alternative apparatus for learning and/or a compensatory instrument (ATD) in a request for understudies to be included in education and to guarantee that the understudies' digital abilities are completely used Lidström, Granlund and Hemmingsson cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012). An American case concentrate by Gillette cited in (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012) emphasizes the requirement

for an individual plan for SEN understudies who use ICT in school work. Gillette describes grade 7 understudy with learning troubles and the teamwork between understudy, school and home that eventually generates an individual reading and writing assistive innovation plan (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012).

The Different ICT Levels for Inclusive Education

a) At an individual level:

I. Assistive Technology (AT) is anything, piece of gear, administration or item framework whether acquired commercially on the rack, altered or tweaked, that is utilized to increase, maintain, or improve functional capabilities of individuals with disabilities (Marín-Díaz, 2018), (Information and Communication Technology for E-Regions, 2011), (ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, 2012).

II. Includes a range of advances, which enable individuals to build on their abilities and participate as completely as possible at home, school, work and locally (Marín-Díaz, 2018).

III. It can be a mind-boggling and multifaceted field, yet sometimes be a relatively easy and creative problem-solving measure (Marín-Díaz, 2018).

IV. Assistive devices

- Content Delivery Systems
- Content generation & archiving
- Education
- Braille. Pictorial Communication. Large Print. Personalized environment
- Rehabilitation/Inclusion
- Physiotherapy, Beauty care, Call centre/office jobs, Bank, Court etc.
- Communication
- Voice commands, Descriptors, Large Print

b) At the Institutional or Systemic Level;

I. An proof-based applied science got from basic educational and psychological research enhances capabilities of exploring ideas, innovations and

communication (Marín-Díaz, 2018).

II. Any device or administration that is useful in advancing understudy learning.

Assistant Technologies (AT) for Students with Special Educational Needs

Primarily, this module is intended to give a short but complete understanding of assistive technologies (AT), their hypothesis, and a depiction of application areas. The issues of choosing the privilege AT arrangements are important when new administrations for understudies with SEN are paid special attention. After a general introduction to AT, the module examines the utilization of assistive technologies for educational purposes with the needs of five main gatherings of impairments: physical, visual, hearing, discourse and language, psychological, and learning (Edwards, 2006), (Masih, 2018).

The following are the Examples of some AT to help PWDs in education includes (Edwards, 2006), (Masih, 2018):

- Alternative & Augmentative Communication software/devices
- Multi-Sensory systems
- Braille Duplicators and Writers
- Group Hearing Aid for classrooms;
- Tactile mathematical devices
- Tactile geography devices
- Tactile science devices
- Screen readers & magnifiers
- Assessment & evaluation tool Models
- Multimedia Content
- Content Development Software
- Word Bank & Prediction Systems
- Text-to-Speech Engines & Speech Recognition
- Special Access Switches & Mechanism
- Sign Language & Braille Learning Software etc.

- Web-Portal
- M-Learning
- Web-cast
- Online learning
- On-demand examination

Some AT Gadgets Available

Visual Impairment

- Braille shorthand machine
- Distance vision telescopes
- Hand-held magnifiers
- KNFB portable reader for blind people
- Talking dictionary
- Smart Cane

Speech Impairment

- Delayed Auditory Feedback (DAF)

Hearing Impairment

- Advanced Digital Speech Audiometer
- Hearing Aid
- Wireless FM Assistive Listening System

Locomotor Impairment

- Battery Powered Joystick Operated Wheelchair
- Aluminum Crutches
- Ankle Brace for ankle support
- Prosthetic limbs
- Cervical Immobilizer
- Child model tricycle
- Folding sticks and folding walkers

Mental Retardation

- Basic Skill Wooden Puzzles
- We can (daily living activities)
- Calendar of seasons
- Punnarjani

Categories of People Reinforced by Inclusion

The major stimulus for inclusive education came from the 1994 World Conference on Special Needs Education in Salamanca cited in (Masih, 2018). Inclusion is worried about the learning, participation, and equal freedoms for all youngsters, youth, and adults with a particular spotlight on the gatherings vulnerable to marginalization and prohibition from social life. It could apply to any or all of the following (Masih, 2018);

- Gifted and talented pupils.
- Children with social difficulties such as street children, prison inmates.
- Children who need support in learning the language of instruction.'
- Children with special educational needs including those considered to have emotional, behavioral, sensory, physical or mental disabilities.
- People in disadvantaged remote areas, poorly served by educational services.
- People who missed the opportunity to study in childhood.
- Children in need include those in public care and orphanages.
- Girls and boys who have gender issues.
- Ethnic and faith minority groups, travellers, asylum seekers and refugees.
- Any pupils at risk of disaffection and exclusion.

These gatherings are usually prohibited from mainstream education. Accordingly, education for them requires special approaches and strategies (Masih, 2018).

Barriers to Inclusive Education for People with SEN

People with SEN experience many troubles in learning, which can be permanent, as of late acquired, fluctuating, or circumstantial. The following social, monetary, and physical barriers to learning should be viewed as when developing education initiatives (Edwards, 2006).

a) Social Barriers: External social barriers are caused by society's unwillingness

and/or inability to address the issues of individuals with disabilities and to allow them to take part in the existence of the local area. Internal social barriers are caused by the impression of people's disability influenced by cultural and ideological vision (Edwards, 2006).

b) Economic Barriers: External monetary barriers are caused by the inability of society and/or the state to accommodate the needs of people with disabilities in request to allow them to practice their abilities (Edwards, 2006). Internal financial barriers are caused by the impossibility of people with special needs to gain admittance to education by the reason of their restricted finances (Edwards, 2006).

c) Physical Barriers: External physical barriers are caused by the inaccessible and unsafe plan of conditions. Internal physical barriers are caused by the physical, mental, tactile, and different impairments of an individual (Edwards, 2006).

Benefits of Inclusive Education to the Different Groups of People

Inclusive education means that all understudies in an educational setting, regardless of their qualities or weaknesses in any area, become part of the local area. The primary reason for promoting the attendance of understudies with special needs in mainstream schools is to increase their learning openings through interaction with peers and to encourage their participation in the existence of the local area. This uniting cycle has a great impact on the societal turn of events, which is backed up by research (Edwards, 2006).

- Benefits for People with Special Educational Needs: In an examination comparing understudies with SEN in a special education climate to the ones in an inclusive climate, statistics showed that those in the inclusive setting made more academic advancement (Edwards, 2006). Enhancements have been noted in the areas of social interaction, appropriate behavior, confidence, and language improvement. Being involved in the same learning activities as their companions allows youngsters with SEN to grow better interpersonal abilities. Regularly such kids are desolate, and increased social associations through contact with companions, companions, and teachers give them more chances to frame relationships with local area members. Besides, the more extended the understudies with special needs are included, the more beneficial outcome there is on educational, social, and occupational results. Confidence and social capability end up being significantly improved (Edwards, 2006).

- Benefits for People Without Special Needs: The research points to the

benefits for understudies with SEN as well as for their non-disabled friends as well, the vast majority of these benefits being social in nature. The main benefit attributed to inclusion practices is by all accounts increased variety awareness and tolerance. Understudies learn to be touchy to the needs of others and can be 'partners – not bosses, but rather valuable' Serving understudies with special needs, their friends obtain such features as a willingness to help, which remains with them for the remainder of life (Edwards, 2006).

- Benefits for Teachers: Disregarding the widespread opinion among teachers, that they need special abilities to teach youngsters with special needs, research has shown that in many cases inclusion can be effectively executed through great, clear, accessible teaching which encourages active participation, all things considered. Such practices show teachers that all understudies have abilities and strength, and create awareness of the importance of an immediate individual way of instruction (Edwards, 2006).
- Benefits for society: Inclusion also has a great benefit for the general public, as it underpins the social value of equality by providing a miniature model of the democratic cycle (Edwards, 2006).

Recommended Approaches to Encourage Using ICT between Peoples with Disabilities

- Some IT-related jobs in public and private areas to be earmarked for people with disabilities.
- Indigenous creation of gadgets to be taken up to increase the affordability of people with disabilities.
- Information to be given in dual communication mode to the benefit of people with disabilities.
- Open learning framework to be encouraged to offer information innovation arranged courses for people with disabilities.
- Assistive gadgets to be adapted for improving access to innovation.
- The existing educational plan for people with disability to be expanded to include information innovation inputs.
- In request to advance information innovation among people with disabilities, the organizations working for them ought to also inculcate the IT culture in their activities.

Paybacks of ICT to Inclusive Education

A portion of the claimed paybacks of ICT to Inclusive Education is (Developing the Use of ICT to Enhance Teaching and Learning in East African Schools: Review of the Literature, 2010);

- Easy-to-access Course Material – Multimedia/easy to understand course material can be posted on the web which learners can access at a time and location they lean toward (Masih, 2018).
- Motivation - Computer-based instruction can offer instant feedback to understudies and explain the right responses. Also, a PC is patient and non-judgmental, which can give the understudy motivation to continue learning (Masih, 2018).
- Wide Participation - Learning material can be utilized for significant distance learning and are accessible to a more extensive audience (Masih, 2018).
- Improved understudy writing - Convenient for understudies to alter their composed work which can, in turn, improve the quality of their writing (Masih, 2018).
- Subjects made it easier to learn - many various kinds of educational software are planned and created to assist clients with learning explicit subjects/themes easily (Masih, 2018).
- More amenable construction to measure and improve results. With legitimate structuring, it can become easier to screen and maintain understudy work while also rapidly gauging modifications to the instruction necessary to enhance understudy learning (Masih, 2018).

FURTHER RESEARCH

In the field of ICT for understudies with special educational needs, further research is required. Additional research should focus on understudies' perceptions of ICT as a tool for inclusion. It would also be interesting to study teachers to see how activities for students with special needs who use ICT in school are carried out. Another concept is to create a similar report in an environment where all understudies have access to computers to see whether organized efforts could help understudies with special educational needs.

CONCLUSION

Education and ICT are inextricably linked. ICT allows the whole teaching-learning process to be viable. We can deduct from the above discussion that North-East India faces a slew of problems when it comes to using ICT for inclusive education. The issue has arisen due to a variety of factors, including a lack of creativity, internet connectivity, and trained teachers, a multilingual and multicultural classroom, and a disparity between strategy and implementation, among others. However, for a nation's educational development, the use of ICT in the classroom and the inclusion of all understudies are both necessities of the moment. As a result, all education stakeholders, including teachers, parents, policymakers, and the administration, should collaborate to remove the obstacles to an inclusive classroom. As a result, policymakers should follow a long-term plan to remove these types of obstacles.

REFERENCES

Benigno, V., Bocconi, S., & Ott, M. (2007). Inclusive education: helping teachers to choose ICT resources and to use them effectively. *Inclusive Education: Helping Teachers to Choose ICT Resources and to Use Them Effectively*, *6*, 4.

Bolstad, R., New Zealand Council for Educational Research., & New Zealand. Ministry of Education. (2004). *The role and potential of ICT in early childhood education : a review of New Zealand and international literature*. http://www.nzcer.org.nz/research/publications/role-and-potential-ict-early-childhood-education-review-new-zealand-and-intern

Das, G. (2020). Challenges of Using ICT for Inclusive Education in North East India. *The Online Journal of Distance Education and E-Learning*, *8*(3), 133–141. www.tojdel.net

Edwards, A. D. N. (2006). *ICTs IN EDUCATION FOR PEOPLE WITH SPECIAL NEEDS UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION, UNESCO INSTITUTE FOR INFORMATION TECHNOLOGIES IN EDUCATION, SPECIALIZED TRAINING COURSE IITE TRAINING MATERIALS*. www.iite.ru

Fernandez-Batanero, J. M., & Colmenero-Ruiz, M. J. (2016). ICT and inclusive education: Attitudes of the teachers in secondary education. *Journal of Technology and Science Education*, *6*(1), 19–25. https://doi.org/10.3926/jotse.208

Gadzama, W., & Jatau, I. K. (2019). The Challenges Facing Successful Integration Of ICT In Teaching And Learning In Public Secondary Schools In Nigeria. *Research Journal of Information Technology*, *3*(4), 2–12.

Developing the Use of ICT to Enhance Teaching and Learning in East African Schools: Review of the Literature, Africa 121 (2010). http://www.educ.cam.ac.uk/centres/cce/publications/CCE_Report1_LitRevJune0210.pdf

ICT and inclusion: Teacher's perceptions on the use of ICT for students with special educational needs in general education settings, Degree Project Special Education Programme, 30 credit Special Education Programme, 90 credit 1 (2012).

Koissaba, B. R. O. (2017). Education for All: Prospects and Challenges of Mobile Schools, Mobile Education, and e-learning for the Nomadic Pastoralists in Kenya. *Kessa*, *September*, 1–27. https://www.researchgate.net/publication/319630142_EDUCATION_FOR_ALL_PROSPECTS_AND_CHALLENGES_OF_MOBILE_SCHOOLS_MOBILE_EDUCATION_AND_E-LEARNING_FOR_THE_NOMADIC_PASTORALISTS_IN_KENYA_2_nd_Ed_2017

Marín-Díaz, V. (2018). ICT for inclusive education. *Bordon, Revista de Pedagogia*, *69*(3), 17–22. https://doi.org/10.13042/Bordon.2017.58633

Masih, A. V. (2018). Effective Use of ICT in Teacher Education for Inclusive Environment in Classroom. *Educational Quest: An Int. J. of Education and Applied Social Science*, *9*(3), 247–251. https://doi.org/10.30954/2230-7311.2018.12.7

Suleiman, M. M. Surajo, Aminu Zubairu Matinja, Z. I. (2020). ROLE OF ICT FOR ENTREPRENEURSHIP DEVELOPMENT IN NIGERIA. *Kampala International University Interdisciplinary Journal of Humanities and Social Sciences (KIJHUS)*, *2*(1), 97–111.

Suleiman, Muhammad Muhammad B/Zuwo, Haruna Salihu Babayo, M. (2020). Nexus of ICT & Entrepreneurship Education in Nigeria : A Critical Review. *International Journal of Research*, *07*(06), 73–86. https://journals.pen2print.org/index.php/ijr/

ICT IN An Inclusive Education: The Benefits: Post Doctoral Fellow of ICSSR, Department of Education, Central University of Tamilnadu, Thiruvarur.

Suri, R. (2011). Disability and the Use of ICT in Education : Do Students With Special Needs Recognise the Support Given By Teachers When Using Technology.

Problems of Education in the 21st Century, *2002*, 149–158.

Information and Communication Technology for E-Regions, Encyclopedia of Information Science and Technology, Second Edition, European Agency for Development in Special Needs Education 1944 (2011). https://doi.org/10.4018/978-1-60566-026-4.ch306

Volpe, V. Della. (2016). What About Inclusive Education and ICT in Italy: a Scoping Study. *European Scientific Journal, ESJ*, *12*(25), 26. https://doi.org/10.19044/esj.2016.v12n25p26