REVIEW ARTICLE

USING ICT FOR CHILDREN WITH SPECIAL NEEDS

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ARTICLE INFO	ABSTRACT

All students, irrespective of their sex. race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability have the right to have equal opportunity in education (Klironomos *et al.*, 2006), and to be considered as being an integral part of the learning community. This paper looks at the issue of E-Inclusion by referring to the concept of Universal Access to Education. It focuses on the strong potential Information and Communication Technologies (ICT) provide to avoid any kind of digital divide among students with special needs and its role in capitalising the opportunities offered by new technologies to support the full inclusion of all students in mainstream education systems. In this perspective, to view the Universal Access to Education as a concrete and reachable goal, teachers need to be aware of the ICT potential and they must be able to acquire the suitable knowledge and operational skills to choose and use ICT as an appropriate and promising tool promoting equity in educational opportunities helping children with special needs overcome barriers to learning, thus increasing their school achievement, together with their autonomy, willingness and self esteem.

INTRODUCTION

The Term information technology is sometimes said to have coined by Jim domsic of Michigan in November 1981. ICTs to support children and young people with disabilities, as well as adults, are commonly referred to as assistive technologies (AT), although there is no one single internationally accepted definition for this term. Abbott (2007) agrees that a wider definition allows for a more flexible and inclusive approach and goes on to propose the term conclusion and suggesting that a focus on the social model of inclusion is supported in the learning context by a focus on three areas of ICT usages, namely technology to train and rehearse; technology to assist learning and technology to enable learning. 'Inclusion' as used in this briefing means the efforts made to include students with a range of physical, sensory, communication or cognitive disabilities in both learning and wider social opportunities. ICT can be vital for these students, transforming the landscape of 21st Century learning environment that initiates maximum' utilisation of technology transformation for curriculum designing and can help these children" overcome many of their communication difficulties, so they can be included in lessons, and access a wider curriculum.

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For example, access devices can help learners with physical difficulties to use a computer, and enable them to access the same curriculum as their peers. Software designed to meet a student's particular needs can also help to motivate him or her. For some students technology may be the only way to ensure they can make their thoughts and needs known. For them, access to appropriate ICT-based solutions provides perhaps the only chance of participating in society and realising their full potential.

E-Inclusion and Children with Special Needs

The inclusion of students with barriers to learning in ordinary schools is a part of the global movement for human rights. All learners have a right to education, regardless of their individual characteristics or difficulties Over the last few decades, the development of inclusion has become central to international education policy and has forced the major changes in national legislation in many countries. Starting in the 1980s, inclusive education has aimed to promote academic learning, social competence and skills, attitude change, and positive peer relations in inclusive settings for students' with special needs. The educational needs of people with disabilities are vastly Diverse. On the one hand, they must, as their peers, get knowledge and skills required in the society in which they live. In this context, ICT application is very important as it plays an essential role in providing high quality education for students

with disabilities. ICTs have been introduced into the teaching-learning process in order to improve quality, support curricular changes and new learning experiences. In this way it is possible to meet the specific learning needs of different learner groups, including students with disabilities. Inclusive education presents an opportunity for students with special needs to attend mainstream classrooms with their age-group peers. To realise this we need to provide for the relevant conditions of overcoming the barriers to the learning process. Particularly speaking, these conditions are attained via the facilitation of ICT infrastructure for special needs education, integration of ICTs into special needs education curriculum and training of ICT specialists in special needs education. ICT infrastructure is necessary in order to provide for the appropriate conditions of teaching and learning in the special needs education context. The conditions in every type of inclusive educational area cannot be successfully created without the appropriate special needs education tools applied. Assistive tools must be used to allow students with special needs education to participate in the educational process based on special techniques and equipment.

Benefits of ICT Use in Education of Children with Special Needs

- Enables students to demonstrate achievement in ways which might not be possible with traditional methods.
- Enables tasks to be tailored to suit individual skills and abilities.
- Computers can improve independent access for students to education (Moore and Taylor, 2000; Waddell, 2000).
- Students with special educational needs are able to accomplish tasks working at their own pace (ACE Centre Advisory Trust, 1999).
- Visually impaired students using the internet can access information alongside their sighted peers (Waddell, 2000).
- Students with profound and multiple learning difficulties can communicate more easily (Detheridge, 1997).
- Students using voice communication aids gain confidence and social credibility at school and in their communities (Worth, 2001).

The current period of educational system development is characterised by the increasing role of ICTs which have become an important new component of the curriculum, adding a valuable set of new resources and didactical tools suitable to support the learning process. Speedy development of the Information Age brings people with special needs a danger of losing their most basic rights, caused by new threatening barriers. In order to exploit the whole potential of the ICTs to provide for the equality, it is necessary to understand the barriers to learning faced by those who are seen to have special educational needs. Barriers to learning prevents students from getting sufficient level of knowledge as well as from giving a teacher a true evaluation of the students' competence. Consequently, the assistive technology is the keystone of a fruitful, modern educational process including students with disabilities. Assistive Technologies can help and support the involvement of such students in the learning process by overcoming some of the effects of their impairment as well as possible barriers that traditional ways of educational technology may create.

How ICT can enhance teaching and learning in Special Educational Needs

Some pupils in your class may have learning difficulties caused by a physical disability, a problem with their sight, hearing or speech, emotional or behavioural problems, a medical or health problem or difficulties with reading, writing, speaking or numeracy. The use of ICT is essential in enabling pupils with Special Educational Needs to gain access to the curriculum. For pupils with physical and sensory disabilities, ICT can be used to: Provide switch access to classroom activities such as matching, sorting and word processing translate text into speech and speech into text prepare work which is specially adapted with large fonts, symbols and particular colours. This will give pupils some level of independence in partaking in activities and the ability to work in an environment that encourages play and investigation. For pupils with learning difficulties, using ICT can: Provide pupils with a clutter-free working environment where features of programs are linked to pupils' ability enhance the development of activities which are clear, focused and attractive to pupils, enable pupils to practise skills in a different context, allowing numerous repetitions in order to aid learning support language development activities and offer multi-sensory ways of learning offer a medium for differentiated activities. For pupils with emotional and behavioural difficulties using ICT caw Offers pupils a non-threatening or non-judgemental situation, allow pupils to be motivated and offer opportunities for success, gives pupils the opportunity to be responsible for their own learning, allows pupils to work on tasks that are more manageable and achievable.

Integration of ICTs in Special Needs Education Curriculum

Rapid technological development in recent years has made possible many new services and assistive devices which ease the daily life and perfect learning results of people with disabilities. However, lack of awareness, knowledge, and skills in the field of appropriate technology applications reduces the benefits of technology advances. However, necessary education and training of the multidisciplinary staff involved in special education services has not always accompanied pedagogical approaches to ICT integration in daily practice. Students with disabilities have a range of skills and needs, therefore, require a variety of teaching and assessment strategies. In this regard, a special needs policy must primarily focus on curriculum planning and monitoring of students' progress. First and foremost, a curriculum accounting for a diversity of students' needs must be flexible and adaptable, designed to reduce environmental barriers of students who may disadvantage from regular education. Evidently, such students must have a chance to: access and fully participate in the curriculum; gain positive learning outcomes and demonstrate them appropriately. The arrangements to provide for equal learning opportunities are not a matter of diminutive changes any teacher may have to do in terms of methods and contents.

It is rather a reorganisation of a pedagogical vision of the education system, considering necessary ICT integration. UNESCO research accomplished in 2004 states that curriculum differentiation is "the process of modifying or adapting the curriculum according to the different ability levels of the students in one class".

Conclusion

It has been suggested that technology is a great equalizer for many children with special needs as technology can serve as a kind cognitive prosthesis to overcome or compensate for differences among learners. This idea has important implications for learners with disabilities and special educational needs because it suggests that technology can help create the conditions for equal opportunity to learn and equal access to the curriculum for all. A moment or two's thought about what makes some classroom practices more educationally effective than others suggests where to look for a better understanding of effectiveness in the se of ICT in schools. Science and technology' has always been instrumental in bringing efficiency and improvement in the processes and products of the human work. The world of 4ducation has influenced by the increased use of technology. It has provided valuable help in improving the task of the professional/teacher smoothening the process of teaching-learning and enriching the goals of management/education for children with and without disabilities.

Hence, ICT plays a major role in managing/educating children with diverse needs and it becomes mandatory for every professional/teacher to equip themselves with sufficient knowledge and necessary training in ICT for handling children with special needs.

REFERENCES

Brodin, J., Lindstrand, P. 2003. What about ICT in special education? Special educators evaluate information and communication technology as a learning tool.

Creswell, J.W. 2009. Research design: Qualitative & quantitative approaches. United Kingdom: SAGE.

Denzin, N.K. and Lincoln, Y.S. 2003. Collecting and interpreting qualitative materials. London: SAGE.

Heemskerk, I., Volman, M., Admiraal, W. and Dam, G. 2012. Inclusiveness of ICT in secondary education: students appreciation of ICT tools. *International Journal of Inclusive Education*, 16(2).

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