Emerging Approaches of Technology for Teaching People with Special Needs

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Abstract

Modern technology has performed a vital role for teaching people with special needs. There has been a significant effect on the learning of people with special needs with the use of modern technology. The integration of ICT with teacher training programs has been fruitful for the comprehension of people with special needs. The research has been conducted on the emerging approaches of technology to conclude the significant effect on the concept learning of the people with special needs. The people with special needs include the individual requirements (as for education) of a person with a disadvantaged background or a mental, emotional, or physical disability or a high risk of developing one. The nature of research is descriptive. The mixed method approach is used in conducting the research. The relevant documents were being analyzed to meet the objectives of the study. The study will be important for the researchers and academicians. The study will be fruitful for the curriculum developers and policy makers also. The study will be significant for the teacher trainers. The study will also be beneficial for the persons involved in the managing of workshops and training programs for people with special needs.

Key words: Approaches, Technology, Special People, Concept Learning

Introduction

Learning barriers for people with special needs

According to the report of IITE (2006), people with SEN experience many difficulties in learning, which can be permanent, recently acquired, fluctuating, or circumstantial. The social, economic, and physical barriers to learning must be considered when developing education initiatives. 1). External social barriers are caused by the society's unwillingness and/or inability to meet the needs of people with disabilities and to allow them to take part in the life of community. Internal social barriers are caused by the perceptions of persons' disability influenced by cultural and ideological vision. 2). External economic barriers are caused by the inability of society and/or the state to accommodate the needs of persons with disabilities in order to allow them to exercise their abilities. Internal economic barriers are caused by impossibility for persons with special

needs to get access to education by the reason of their limited finances. 3). External physical barriers are caused by the inaccessible and unsafe design of environments. Internal physical barriers are caused by the physical, mental, sensory, and other impairments of a person.

Use of ICT and people with special needs

Most policy- and decision-makers agree that the access to appropriate ICTs can reduce inequalities in education, and ICTs can be a powerful tool in supporting educational inclusion. However, despite huge potential benefits of ICT usage in SNE, only occasionally it meets our expectations. Inappropriate or limited access to ICTs seems to reinforce inequalities in education. Unsatisfactory experiences of technology application bring teachers to the conclusion that the disadvantages of new technologies far outweigh their advantages. Much of this dissatisfaction can be attributed to the quality of the driving policy content and support, rising directly from the inflexibility of the underlying learning (technical) platforms, i.e. hardware, software, and Internet access, for all potential users. ICT infrastructure implies the telecommunication and information networks which transmit, store and deliver the information 46. The infrastructure in the special education context embraces a wide range of devices. Traditional corporate approaches to ICT management are too inflexible to satisfy the needs. It is vital that the infrastructure is designed from the user's viewpoint. In order to ensure that the ICT devices used in SNE are suitable and appropriate for the needs of individual students, it is very important to assess regularly the level of training and support provided for students and teachers (IITE, 2006).

Emerging technologies for teaching people with special needs

"Trying to define motivation is a little like trying to define psychology itself" Gross (1992). According to Miller the study of motivation "the study of all those pushes and prods - biological, social and psychological - that defeat our laziness and move us, either eagerly or reluctantly, to action". Two aspects of psychological research are identified. Firstly, motivational factors from the review by Weiner of studies into motivation, and secondly, we have used the theory of Ajzen (1988) which applies to attitudes and behaviour to examine factors leading to actions. It has been confirmed that these aspects which are more directly relevant to the uptake of ICT in education than the many other biological, social and psychological factors. The use of emerging technologies has a more significant effect on the concept learning of people with special needs. The emerging technology for teaching people with special needs include Chat rooms, Discussion Boards, E-mails and portfolios. Many educational institutions use chat rooms for people with special needs. Discussion boards are

forums on the Internet where users including professors and students may post assignments, questions, case studies, or messages for class members to read and respond to asynchronously. The posted information is viewed by the entire class. Electronic mail is text sent through a computer network to a specified individual or group. E-mail messages can also carry attached files. E-mail may be utilized as one method of asynchronous distance communication between faculty and students and among classmates to facilitate learning. Many studies provide verifying evidence about the motivating effects of IT/ICT on students' learning. For example, Davis, Bagozzi and Warshaw (1989) developed a theory of 'action relating to reasons' (Technology acceptance model) based on the work of Fishbein and Ajzen (in Davis et al, 1989) to investigate the reasons why some people use computers and their attitudes towards them. Their model, shown in Figure 1, links the perceived usefulness and ease of use with attitude towards using ICT and actual use (system use).
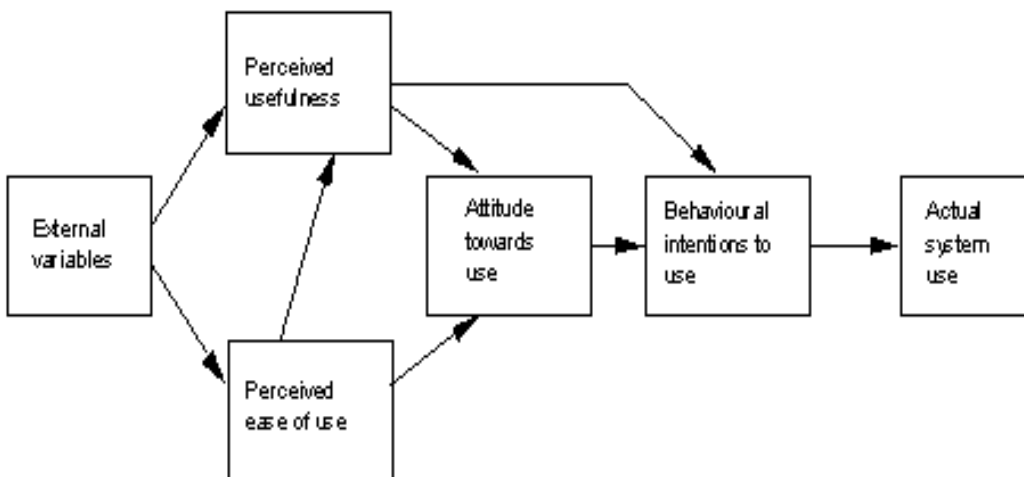

Figure 1 - Technology acceptance model

Source : Davis, Bagozzi and Warshaw, 1989

Concept Learning of PSN with the use of ICT

The field of education has been affected by ICTs, for enhancing and affecting teaching, learning, and research for people with special needs (Ahmed, 2005). The use of ICTs has the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change for people with special

needs (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).

Emerging Trends of Teaching PSN

Teachers have been diverged in their acceptance of the new technologies for teaching people with special needs. Some have enthusiastically integrated computers, CMC and the Internet into the classroom while others have been careful in their welcome, and some have simply rejected the technologies. There is a level of justifiable skepticism based on the previous experience of computer based applications such as CAL. Ironically, some enthusiasts have inadvertently damaged the reputation of ICT by poor classroom practice - using the technology for the sake of its novelty, value, or failing to think through the issues before implementing the technology (Littlejohn, et al, 1999).

Conclusion

The emerging technologies performed a vital role to enhance the concept learning of people with special needs. The integration of teaching strategies with the use of ICT may be significant in adopting the lesson for people with special needs. The relationship between the teacher and person with special needs is also based on the use of ICT in the classroom. The use of ICT in the teacher training programs for people with special needs is essential to promote the concept learning and in the people with special needs.

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