

## ICT AN EFFECTIVE MEANS OF INFORMATION IN TEACHING AND LEARNING

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### ABSTRACT

Information and communication technologies (ICT) have become common place entities in all aspects of life. During the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavour within business and governance. Education is a socially oriented activity and quality education has traditionally been associated with good teachers having high degrees of personal contact with learners. The use of ICT in education lends itself to more student-centered learning settings. But with the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important and it will continue to grow and develop in the 21<sup>st</sup> century. The paper provides the literary review regarding usage of ICTs in education, along with ICT use in the teaching learning process. ICT among the disadvantaged section, quality and accessibility of education: learning motivation, learning environment and ICT to enhance scholastic performance are note worthy to mention.

**KEYWORDS:** Information, Communication Technologies

### INTRODUCTION

Education system around the world are under increasing pressure to use the new information and communication Technologies (ICTs) the premise that ICT is important for bringing changes to classroom teaching and learning is the basis for this pressure. These skills include the ability to become lifelong learners within a context of collaborative inquiry and the ability to work and learn from experts and peers in a connected global community. The information society demands a workforce that can use technology as a tool to increase productivity and creativity. Information is a key resource for teaching, learning, researching, and publishing. This brings the need for effective methods of information processing and transmission. ICT is an accepted acronym of the word information communication technological tools and resources used to communicate and to create, disseminate, store and manage information (Blurton.1999). This means that ICT helps in the storage and management of informations. ICT also encompasses a range of research communication and administration. These includes Internet access, electronic mail. CD-ROMS, telephone, on line databases, library services and fax machines. It has endeavor, spanning across education, governance, business, labour, market, shares, productivity, trade, agriculture, commerce and others.

### ICT Enhancing Teaching and Learning Process

Information and communication Technology (ICT) becomes more widely used in classrooms and schools, attention is being forced on how ICT can make teaching and learning more effective. ICT literacy is perceived to be a central feature of work, leisure, community networks and global environments. ICT has significant potential to assist students who are currently disadvantaged gender, disability, indigenous, ethnic and socio-economic background. Teachers

are struggling with how that potential can be developed and used to benefit students currently seen to be excluded from, underachieving in, or disaffected by institutions.. The integration of ICT into institutions and classrooms is uneven both within and across classroom, institution system. Integration of ICT has different levels in classroom systems.

- ICT skills are added into programme through a separate ICT subject, while teaching practices in subjects remain unchanged.
- ICT skills are integrated into daily work of teachers, with some teachers pedagogical practices and classroom behaviours staying the same, while the practice of others change more radically.
- ICT is transformative at the classroom level in that it changes content as well as pedagogy( What learner learn and how they learn)
- ICT is transformative at the system level leading to changes in organizational and structural features. ICT is seen as a catalyst of system. Community

Classroom reforms provide opportunities to shift from teacher centered to student centered learning. In turn ICT could also increase the pedagogical repertoire of teachers. This teacher effect is most likely to improve the outcome of disadvantaged students because it attends to individual need and provide a variety of curriculum and assessment strategies to promote student capabilities across a range of learning outcomes. In that sense, good pedagogical practice in the use of ICT to enhance the learning of students who are disadvantaged is good pedagogical practice for all students. ICT practices indicate that teachers can assist to address learning difficulties and different learning styles.

### **ICT Enhances the Quality and Accessibility of Education**

ICT increases the flexibility of delivery of education so that learners can assess knowledge any time and from anywhere. It can influence the way students are taught and how they learn as now the processes or learner driven and not by teachers. ICT also challenges teacher assumption about ICT, disadvantage and learning. Teachers need to develop skills in their own disciplinary area and across the curriculum in utilizing ICT in ways that are attendant to the operational, cultural and critical dimensions of digital literacy and do not just see ICT as another tool. Many teachers lack confidence in using ICT. Other factors are the attitudes, expectations and approaches of teachers. Teachers vary in how they approach ICT as individuals, often resulting from their own experience of learning about and with computers. Much of the literature refers to how teachers attitude to particular students become embedded in how they use ICT in classroom, based on particular understandings about the nature of the particular student's differences and how they are 'disadvantaged'. Teachers who have low expectations and believe that students cannot learn unless they know the basics tend to use ICT as another way of developing basics skills in foundational literacy and numeracy. Teachers who believe that all students can learn benefit from a challenge, that learning is not a linear process. More innovative teachers do not see ICT as a replacement for traditional teaching approaches, but as part of a repertoire of teaching strategies. ICT can improve learning when teachers are intensively trained to make professional judgments.

### **Benefits of ICT**

Research proves that appropriate use of ICT can catalyze the paradigmatic shift in both content and pedagogy that is at the heart of education reform in the 21<sup>st</sup> century(Bransford, 1999) if designed and supported properly, ICT-supported education can provide and promote acquisition skills of knowledge that will empower students for lifelong learning. The

following are the benefits derived from the use of ICT in education.

- Active learning: ICT- enhanced learning mobilizes tools for examination, calculation and analysis of information, thus providing a platform for student inquiry, analysis and construction of new information. Learners therefore learn as they do and, whenever appropriate, work on real-life problem in depth, making learning less abstract and more relevant to the learner's life situation. In this way, and in contrast to memorization-based or rote learning, it promotes increased learner engagement. ICT enhanced learning is also just in time learning in which learners can choose what to learn when they need to learn it.
- Collaborative learning: ICT supported learning encourages interaction and cooperation among students, teacher's experts regardless of where they are. Apart from modeling real world interactions. ICT supported learning provides learners the opportunity to work with peoples of different cultures, thereby helping to enhance learners teaming and communicative skills as well as their global awareness. It models learning done throughout the learners lifetime by expanding the learning space to include not just peers but also mentors and experts from different fields.
- Creative learning: ICT supported learning promotes the manipulation of existing information and the creation of real-world products rather than the regurgitation of received information.
- Integrative learning : ICT-enhanced learning promotes a thematic, integrative approach to teaching and learning. This approach eliminates the artificial separation between the different disciplines and between theory and practice that characterizes the traditional classroom approach.
- Evaluation learning : ICT-enhanced learning is student-directed and diagnostic. Unlike static, text-print based educational technologies, ICT enhanced learning recognizes that there are many different learning pathways and many different articulations of knowledge. ICTs allow learners to explore and discover rather than merely listen and remember.

## CONCLUSIONS

The adoption and use of ICTs in education have a positive impact on teaching, learning and research. ICT can affect the delivery of education and enable wider access to the same. In addition, it will increase flexibility so that learners can access the education regardless of time and geographical barriers. It can influence the way students are taught and how they learn. It would provide the rich environment and motivation for learning process which seems to have a profound impact on the process of learning in education by offering new possibilities for learners and teachers. These possibilities can have an impact on student performance and achievement. Similarly wider availability of best practice and best course material in education, which can be shared by means of ICT, can foster better teaching and improve academic achievement of students.

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