Benefits of ICT in Education

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ABSTRACT

Being aware of the significant role of ICT in our life, especially in the educational activities, education authorities should be wise enough in implementing the strategies to empower ICT in supporting the teaching and learning process in the classroom. Nowadays Information and Communication Technology (ICT), in the education sector plays an important role, especially in the process of empowering the technology into the educational activities. The use of ICT in education adds value to teaching and learning, by enhancing the effectiveness of learning. Technology in another side can be the most effective way to increase the student's knowledge. Also it helps them to think independently and communicate creatively. It also helps students for building successful careers and lives, in an increasingly technological world.
Keywords: ICT, benefits, education.

INTRODUCTION

Smart technology" is the familiar terminology that is widely being used in every being's life. Smartphones, tablets, gadgets, smart televisions, etc., are the products of smart technology that have made human life smarter, easier and accessible. Smart technology has not only enhanced the way of living but also became an integrated part of everyone's life. The Information and Communication technology to be precise has become a driving force behind economic growth and a developmental tool as well [1].

ICT is an extended term for Information technology which is a technological source to make information available at the right time, right place in the right form to the right user. Earlier, one had to wait for the newspapers to get the information across the world. Now with the smarter technology, information can be accessed from anywhere using smartphones and gadgets [2]. All this is made possible with the help of Information and Communication Technology. Information technology has been influencing our lives in

the recent years in the fields of education, healthcare, and business. Going an extra mile, Information and communication technology in schools has had a major impact.

Information and communication technology in schools can be used as a school communication tool to improve student learning and better teaching techniques. With the advancement of technology in education, schools adopt school communication software to transmit, store, share or exchange information. In this technological era, ICT in education has compelled many schools to get accustomed to smart technology. This school communication software uses computers, the internet, and multimedia as the medium of communication [3]. The use of ICT in education adds value to teaching and learning, by enhancing the effectiveness of learning. It added a dimension to learning that was not previously available. After the inception of ICT in schools, students found learning in a technology-enhanced environment more stimulating and engaging than in a traditional classroom environment [4]. Thus, the purpose of this review article is to discuss the benefits of ICT use in education, in the enhancement of student learning and experiences of some countries in order to encourage policy makers, school administrators, and teachers pay the required attention to integrate this technology in their education systems. In so doing, it highlights the benefits of ICT in education, existing promises, and the limitations and challenges of integration to education systems.

Benefits Using ICT In the Classrooms

Improves engagement

When technology is integrated into lessons, students are expected to be more interested in the subjects they are studying [5]. Technology provides different opportunities to make learning more fun and enjoyable in terms of teaching same things in new ways. For instance, delivering teaching through gamification, taking students on virtual field trips and using other online learning resources. What is more, technology can encourage a more active participation in the learning process which can be hard to achieve through a traditional lecture environment.

Improves knowledge retention

Students who are engaged and interested in things they are studying, are expected to have better knowledge retention. As mentioned before, technology can help to encourage active participation in the classroom which also is a very important factor for increased knowledge retention [6]. Different forms of technology can be used to experiment with and decide what works best for students in terms of retaining their knowledge.

Encourages individual learning

No one learns in the same way because of different learning styles and different abilities. Technology provides great opportunities for making learning more effective for everyone with different needs. For example, students can learn at their own speed, review difficult concepts or skip ahead if they need to. What is more, technology can provide more opportunities

for struggling or disabled students. Access to the Internet gives students access to a broad range of resources to conduct research in different ways, which in turn can increase the engagement [7] [8].

Encourages collaboration

Students can practice collaboration skills by getting involved in different online activities. For instance, working on different projects by collaborating with others on forums or by sharing documents on their virtual learning environments. Technology can encourage collaboration with students in the same classroom; same school and even with other classrooms around the world [9].

Students can learn useful life skills through technology

By using technology in the classroom, both teachers and students can develop skills essential for the 21st century. Students can gain the skills they will need to be successful in the future. Modern learning is about collaborating with others, solving complex problems, critical thinking, developing different forms of communication and leadership skills, and improving motivation and productivity [10]. What is more, technology can help develop many practical skills, including creating presentations, learning to differentiate reliable from unreliable sources on the Internet, maintaining proper online etiquette, and writing emails. These are very important skills that can be developed in the classroom.

Benefits for teachers

With countless online resources, technology can help improve teaching. Teachers can use different apps or trusted online resources to enhance the traditional ways of teaching and to keep students more engaged. Virtual lesson plans, grading software and online assessments can help teachers save a lot time. This valuable time can be used for working with students who are struggling [11]. What is more, having virtual learning environments in schools enhances collaboration and knowledge sharing between teachers.

Some Difficulties in Using ICT In Teaching-Learning

Lack of software problem

This was one of the major factors that made difficulties in use of ICT. There were unreliable and pirated software that had been frequently changed in the computer labs which were difficult to use properly in teaching-learning process [12]. In majority of the cases it had been found that the ICT facilities were limited for both the teachers and students and they had to share with other teachers. According to, the inaccessibility of ICT resources is not always merely due to the non-availability of the hardware and software or other ICT materials within the institution. It may be the result of one of a number of factors such as poor organization of resources, poor quality hardware, inappropriate software, or lack of personal access for teachers. The limitations on access to hardware and software resources influenced teachers" motivation to use ICT in the classroom.

Lack of sufficient training

Most of the teachers lack the skill to use the ICT in teaching-learning process because they did not get enough training

opportunities. Teachers were rarely seen using ICT in a classroom environment because most of the teachers were reluctant to use new technology. New technologies need to be integrated in the classroom and teachers have to be trained in the use of these ICT in particular. In this regard some initial training is needed for teachers to develop appropriate skills, knowledge, and attitudes regarding the effective use of computers to support learning. one of the top three problems to teachers" use of ICT in teaching was the lack of training [13]. The issue of training is certainly complex because it is important to consider several components to ensure the effectiveness of the training. These were time for training, pedagogical training, skills training, and ICT use in initial teacher training. Providing pedagogical training for teachers, rather than simply training them to use ICT tools, is an important issue.

Lack of learning equipment tools and resources

It was found that most of the institutions had computers. But the computers were very few and most of the time they were being used by students who were offering computers science and information technology (IT) leaving the rest of the students and teachers in dilemma. Various research studies indicated several reasons for the lack of access to technologies. Teachers complained about how difficult it was to always have access to computers [14]. The author gave reasons like "Computers had to be booked in advance and the teachers would forget to do so, or they could not book them for several periods in a row when they wanted to work on several projects with the students" (p. 50). In other words, a teacher would have no access to ICT materials because most of these were shared with other teachers. Teachers identified lack of insufficient numbers of computers, insufficient peripherals, and insufficient numbers of copies of software, and insufficient simultaneous internet access as the main obstacles to the implementation of ICT in educational institutions [15]. The accessibility of ICT resources does not guarantee its successful implementation in teaching, and this is not merely because of the lack of ICT infrastructure but also because of other problems such as lack of high quality hardware, suitable educational software, and access to ICT resources. Analysis asserts that poor choices of hardware and software and lack of consideration of what is suitable for classroom teaching are problems facing many teachers.

Teachers' reluctance to new technology

One of the problems in the implementation of computers in teaching-learning was teachers" acceptance, which is in turn was influenced by their attitudes towards these media. Teachers" attitudes have been found to be the major predictors of the use of new technologies in instructional settings; the successful use of new technology in the classroom depends largely on the teachers" attitudes toward these tools. In fact, teachers" attitudes towards computers affect their use of computers in the classroom and the

likelihood of their benefiting from training. Many researches into the problems of integrating ICT in education found that teachers" reluctant to new technology was a significant problem. Watson, [23] argued that integrating the new technologies into educational settings requires change and different teachers will handle this change differently. According to him considering different teachers" attitudes to change is important because teachers" beliefs influence what they do in classrooms. Becta[17] claims that one key area of teachers" attitudes towards the use of technologies is their understanding of how these technologies will benefit their teaching and their students" learning. Schoepp, [24] found that, although teachers felt there was more than enough technology available, they did not believe that they were being supported, guided, or rewarded in the integration of technology into their teaching.

Lack of skilled personnel

It has been observed that the teachers were lacking in the knowledge and skills; and they were reluctant about the changes and incorporation of extra learning associated with computers into their teaching practices. Hence there is a problem of teachers" acceptance and adoption of ICT. Accordingly,

teachers who do not use computers in classrooms claim that "lack of skills" is a constraining factor preventing them from using ICT. It was also found that teachers" lack of knowledge and skills in teaching was a serious obstacle of using ICT in technical and higher educational institutions. Newhouse [21] found that many teachers lacked the knowledge and skills to use computers and were not eager about the changes and integration of supplementary learning associated with bringing computers into their teaching practices.

Lack of knowledge

Another problem, which is directly related to teacher confidence is- teachers" lack of knowledge in integrating ICT into pedagogical practice. In Syria, for example, teachers" lack of technological competence has been cited as the main problem of using ICT in teaching-learning [25]. Likewise, in Saudi Arabia, lack of ICT skills is a serious obstacle to the integration of technologies into classroom teaching and learning [12, 26]. Another worldwide survey conducted by Pelgrum[16], of nationally representative samples of institutions from 26 countries, found that teachers" lack of knowledge and skills is a serious obstacle to using ICT in educational institutions.

CONCLUSION

The role of ICTs in the education is recurring and unavoidable. Rapid changes in the technologies are indicating that the role of ICT in future will grow tremendously in the education system. By observing current activities and practices in the education, we can say the development of ICTs within

education has strongly affected on ''what is learned, How it is learned, When & where learning takes place, Who is learning and who is teaching'' . ICT also focuses modification of the role of teachers. In addition to classroom teaching, they will have other skills and responsibilities. Teachers will act

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as virtual guides for students who use electronic media. Ultimately, the use of ICT will enhance the learning experiences of students. Also it helps them to think independently and communicate creatively. It also helps students for building successful careers and lives, in an increasingly technological world.

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