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Prospects, Benefits, Challenges and Constraints to the Integration of Information and Communication Technologies (ICT) in English Language Teaching/Learning

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ABSTRACT

Information and Communication Technologies (ICTs) play a major role in creating a new and improved model of teaching/learning English language. Furthermore, it has expanded new opportunities for learning and accessing to English language resources beyond those traditionally available. It is believed that ICT would bring many benefits to the English learners if it is used under the right circumstances. Although ICT offer more benefits and flexibility, this type of learning environment may not be conducive for all English learners. This paper describes the use of ICT in educational systems especially in English language teaching/learning environments. It also investigates some of the prospects (expanding access to and improving the quality of teaching and learning English and highlights their attitudes and the challenges faced by English learners in using ICT. Looking beyond the benefits of ICT, some problems and constraints may discourage teachers to integrate ICT in the classroom and prevent them to introduce supporting materials through ICT usage. Some of the obstacles including no internet facilities, overcrowded classrooms and so on facing the use of ICT in English language teaching/learning environments especially in developing country are also discussed. Provision of internet facilities in educational system, funding of ICT resources for educational environments by government officials are some of the researcher's recommendations that made to improve English language learning process through ICT.

Keywords: ICT, Prospect, Benefit, Challenge, Constraint

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1. Introduction

Technologies are a driving force behind much of the development and innovation in both developed and developing countries. The term new technology includes communication techniques for language teaching in which the personal computer plays a central role (Davies & Hewer, 2012). These technologies include radio, television, computers, Internet, social networks and etc. In the last decade, there has been a growing interest in using computers and the internet to improve the effectiveness of teaching and learning in all levels and in both educational and non-educational settings. Although nowadays the older technologies such as radio, television and telephone are given less attention, they have a longer and richer background as educational

tools. Therefore, the integration of new ICT tools such as laptop, interactive whiteboard, LCD projector, Internet and social networks in education is still in its infancy in comparison with the use of older technologies such as radio and television (Salehi&Salehi, 2011). This is due to the limited infrastructure of ICTs and the high costs of access to internet in developing countries (Carlson & Firpo, 2001).

Information and communication technologies (ICTs) cover a wide range of technologies. ICT now permeates the education environments and underpins the very success of 21st century education. Language teaching/learning, throughout this century, experienced massive changes and innovations to become more dynamic, active, and interactive. ICT undoubtedly serves as teaching and learning space for teachers of English language. ICTs refer to technological tools and resources which are employed to communicate, create, disseminate and manage information (Thierer, 2001; Nordin, Embi&Yunus, 2009; Nordin et al., 2010). Additionally, there are other technological tools that can be utilized in English language learning environments besides computers. Each technological tool has its specific benefit and application with one of the four language parts (speaking, listening, reading, and writing). ICT also adds value to the process of learning and to the organization and management of learning institutions (UNESCO 2002).

The development of ICT, offers a wide range of multimedia resources enabling text, still images, audio and video to be combined in interesting and stimulating ways for presentation purposes in the classroom, using a data projector and an interactive whiteboard. ICT can open up a new range of self-access and distance learning opportunities, thereby making access to learning more widely available to language learners, who have to learn outside normal hours, who live in remote areas, or who have special needs. Therefore, it influences the process of English language teaching/learning. ICT infuses changes in the quality of English language teaching, provides authentic online materials, allows access to data collection and retrieval, and grants privileges to upload, download or transfer of information, injects innovations to methods of teaching, broadens teachers' knowledge on subject matter, permits theoretical and practical use of technology facilities, ICT makes worldwide communication possible via email and via audio- and videoconferencing with native speakers, offers opportunities for intensive one-to-one learning in a multimedia computer lab. Moreover, it is motivating both for learners and for instructors. It makes the learning process more enjoyable. As a result, the researcher is interested to study about the utilization of ICT which would ameliorate and aid the process of teaching/learning language skills. The paper would serve as an eye-opener for the education ministries, curriculum planners, and universities, seekers of knowledge, and concerned bodies on the significance and challenges of integrating ICT into English language teaching and learning and panacea for the raised problems. Additionally, it helps the learners to perform better in language learning than with regimented traditional classroom teaching.

2. The Use of ICT in Educational System

Information and communication technologies consist of hardware, software, network and media for collecting, storing, processing, transmitting and presenting information (voice, data, text and image) as well as related services. ICTs can be divided into two components: Information and Communication Infrastructure (ICI) and Information Technology (IT). The former refers to physical telecommunications system and network (Cellular, voice, mail, radio and television) while the latter refers to hardware and software of information collection, storage, processing and presentation (Sarkar, 2012). Buseni (2013) explains that technology is all about methods and the way people apply them in order to get results, and the act of bringing indifferent approaches to tackle a problem. With the use of ICT devices, teachers and learners can send, store, process, share and receive educative information from one location to another. ICT is considered as a mainstream in higher education. ICTs are being used in many areas such as: developing course materials; delivering content and sharing content; communication between learners, teachers and the outside world; creation and delivery of presentation and lectures; academic research; administrative support and student enrolment (Mandal & Mete, 2012).

Moreover, there are two main aspects where ICT is used in English teaching and learning: ICT is used as a tool for teaching English; English is taught via ICT. In the former aspect, English teachers and learners are aware that they use ICT, particularly computers and network communication, to support teaching and

learning. A wide range of ICT applications are used as a tool. In the latter aspect, ICT facilities become the environment in which English language materials and cross-cultural knowledge are presented. Teachers and learners don't necessarily consider what software or hardware they need to process the English language materials or how to present these materials using ICT. They only focus on English language and culture. Because the materials are presented in real contexts provided through ICT facilities, teachers and learners feel easier and more interested in teaching and learning them.

3. Prospects of the Use of ICT in Language Education

ICT and new technologies can help development in learning of individual skills of learners that may seem more difficult with traditional and conventional method (Pour, 2013). According to (Njamanze, 2010) the technological innovations have gone hand in hand with the growth of language teaching especially English. The prospects of ICT in language can be summarized as expanding access to language programs, improving the quality of teaching and learning, providing access to current materials and offering teachers and learners an avalanche of materials in different modes. Specifically, the United Nations Economic Commission for Africa (2006) stated that English lessons which incorporate multimedia applications can exert powerful motivation and provide bored learners with exciting new ways to learn. 2-The use of ICTs increases English Language competence as well as the quality of learners' experience. 3-The effective use of ICTs removes the time and space barriers found in traditional teaching, as classroom dialogue can now extend beyond the time and space limitations. 4-It allows learners to learn more autonomously and thereby raises self-esteem and confidence. 5- It enhances learners' interaction, verbalization and involvement in group collaborative learning.

Other prospects of ICT in language are the internet resources and online learning which has been one of the greatest breakthroughs of 21th century. Information and communication technology (ICT) is of immense help in virtually all areas of teaching and learning. In the field of language education, there is now so much emphasis on online learning, which has been seen as the great liberator by freeing both teachers and students to accomplish learning in new and exciting ways by sourcing information from the Internet (Schrum, 2000). Online learning has the potentials to offer anyone with an internet connection access to a wide expanse but inexpensive education just as e-learning and computer allow learning environments to deliver classes to learners anywhere in the world (Educause, 2010). Interestingly enough, the emergence of different technologies, specifically the internet has provided learners authentic learning experiences from experimentation to real-world problem solving (Lombardi, 2007).

4. Benefits of Using ICT

If ICT is implemented properly it could have a number of major benefits for learners and teachers alike. The use of ICT Increases motivation; active participation; collaboration; creativity; responsibility and self-esteem; and it also improves knowledge; standard of work and skills. ICT makes communication easier and faster. Also some administrative advantages of ICT are the following:

Routine tasks, such as accessing learners' records, are performed much faster than they were before. Previously, for example, loads of files would be kept containing learners' records and one had to physically look through all of them just to find information. Record keeping becomes more orderly and reliable; manual records used in the past could be lost due to poor filing. Administrative costs, which include items such as costs of photocopying, are lowered and less paper wasted. Communications between learners are facilitated by using social relation applications such as e-mails, telegram etc. By utilizing computer software such as PowerPoint information can be produced much more quickly and efficiently in classes, rather than making photocopies of the same information for everyone. Through ICT learners were connected to experts and had access to global English resources. Learners had access to quality learning material and showed a better understanding of topics under study. Learners acquire a variety of skills, especially typing skills and skills in Microsoft Word, Access and Excel programs. ICT improves learners' research and project management skills. Learning is made easier and much more fun and interesting through the use of ICT. Administrative tasks such as keeping files and registers of learners are much easier. Use of data projectors helps to visually stimulate learners by showing practical real-life situations. Learners could learn more and practice more through online applications like Mixit and MathsBuddy. The benefits of the use or introduction of ICT in English teaching/

learning environments are immense; it is thus important that government, the officials of educational system, the private sector, teachers, learners and society in general join together and make effective efforts to ensure that ICT is introduced or used in the educational system in order to achieve educational development and enhance the productivity of teaching/learning environments.

5. Challenges Faced in the Use of ICT

There are many challenges which affect the integration of technology into language learning. This is because of the difference in age, learning styles, perception, attitudes and others which the person holds. Several researches on barrier of ICT in education have been conducted by previous researcher to identify the genuine factors on ICT usage. A range of factors was identified, including confidence with ICT, self-efficacy, and prior educational background. Muilenberg investigated on analytic studies of barriers to online learning. He identified eight underlying constructs that limit students' experience of online education. These barriers are administrative and instructor issues, limitations of social interactions, limited academic skills, limited technical skills, learner motivation, time and support for studies, high cost and limited access to the Internet, and technical problems.

On the other hand, Show Hui Huang in Taiwan performed a study on factors that influenced students' learning attitudes towards Computer Courses. In her study, she investigated the influencing factors from the internal and external perspectives. Two groups of factors which are internal learning motivation and external learning environment were defined as the influencing factors. Findings revealed that interest, motivation, school environment, employment and trend variables had a significant and direct effect on students' learning attitudes while home environment did not directly influence the students learning attitudes but indirectly affect students' attitudes through computer use. Another, study by Robert Whelan who investigated on the use of ICT in education and lowering barrier in South Pacific. He reported training and capacity building, curriculum development, infrastructure (including electricity, transport and basic services); financing, renewed policy initiatives and top-down government support are perceived as the most important factors in educational ICT development. Recently, Sandra conducted a study on Community college students' barrier to participate in web-based course. Findings show students who take face-to-face courses view the learning as a shared partnership between the instructors and themselves, unlike Web-based courses that are more self-directed. The barriers identified to participants in Web-based courses include the inability to have face-to-face interactions with the instructor and classmates, the inability to have questions answered immediately. Other barriers include the incompatibility with student learning styles and Web-based courses, lack of understanding of Web-based courses, the perceived lack of structure of Web-based courses, the quality of Web-based courses, lack of personal motivation, and concerns with technology.

6. Problems/Constraints of the Use of ICT in Language Education

The process of using ICT in everyday education is very complicated. The opportunities provided by ICT to support teaching and learning are not problem-free. The virtually limitless opportunities of access to information in an educational context can pose a real danger of information overload if the teachers do not have the skills in filtering information for relevance, or are unable to establish a coherent organizing principle. Both students and teachers may lack the necessary skills to access, process and use information. Even there are a number of difficulties which act as constraints and prevent teachers to integrate ICT into the classroom. As Schoepp defines, a barrier is considered as any condition that makes it difficult to make progress or to achieve an aim. The educators have used different categories to classify the barriers for teachers to use ICT in the classroom. Some researchers have classified the barriers into two major categories of extrinsic and intrinsic barriers. Ertmer referred to extrinsic barriers as first order and cited access, time, support, resources and training and intrinsic barriers as second-order and cited attitudes, beliefs, practices and resistance. Al-Alwani defined extrinsic barriers as barriers which are related to organizations rather than individuals and intrinsic barriers as those which are related to teachers, administrators, and individuals.

Some other researchers grouped the barriers into two categories of teacher-level barriers and school-level barriers. Becta classified the barriers based on whether they refer to individual (teacher-level barriers), such as lack of confidence, shortage of time, and resistance to change, or to the institution (school-level

barriers), such as lack of effective training in solving technical problems and lack of access to resources. Balanskat et al classified them into micro level barriers, such as those related to teachers' attitudes and approaches to ICT, and meso level barriers, such as those related to the institutional context. They also added a third group called macro level barriers, such as those related to the wider educational framework. Additionally, another group of researchers refer to the barriers as those pertaining to two types of conditions: material and non-material. As Pelgrum classifies, the material conditions refer to the insufficient number of computers or copies of software. The non-material barriers refer to teachers' insufficient ICT knowledge and skills, the difficulty of integrating ICT in instruction, and insufficient teacher time. In the US, the most important barriers to high school teachers' use of ICT were insufficient number of computers, lack of free time for learning and lack of classroom time for students to use computers. Teachers in larger schools and city schools were more likely to report lack of computers as a barrier and teachers in schools with high minority student populations were more likely to report outdated, unreliable computers as a barrier.

In a study in UK, Jones reported that lack of personal confidence and insufficient access to the ICT resources were the key barriers for majority of the surveyed teachers. Some other factors which were more internal to the teachers such as resistance to change and lack of awareness of the benefits of the ICTs for learning were reported in Jones' study. In the New Zealand, lack of time for professional development to learn about the new technologies and lack of time to explore technologies such as the internet and social networking services were repeatedly reported by teachers as the significant barriers for using ICT in the classroom. Other factors such as ICTs not being considered as important enough to be a priority, contentment with current approaches and lack of confidence to integrate ICTs in the curriculum were reported by the teachers as well.

7. Conclusion and Recommendations

The use of ICT is a symbol of a new era in education. Besides, ICT alters thought patterns, enriches existing educational models and provides new training models. These models shares features of a technology-based training and suggest new learning methods in which the learner plays an active role and also emphasizes self-directed, independent, flexible and interactive learning. Based on this paper, the following conclusions were made

Advances in ICT and availability of ICT resources such as internet, e-mail, videoconferencing etc. have made English language learning/ teaching processes a lot easier and more enjoyable the learners/instructors on their part need to acquire new and requisite skills to use ICT in modern language learning. The effectiveness of ICT on language learning process depends on how they are used and for what purposes. And like any other educational tool, ICTs do not work for everyone or everywhere in the same way. Having studied the importance, challenges and limitations of integrating ICT into English language teaching and learning, the following recommendations are made:

The government and the officials of educational system should play a greater role in both the funding of ICT resources for teaching/learning environments especially those with fewer resources than others, and also train and equip teachers with the skills required. Language instructors should make more use of ICT resources and technology, not seeing them as a threat to their profession. In brief, ICT cannot itself resolve educational problems in the developing world. If used prudently, ICTs will enable developing countries to expand access to and raise the quality of education. Today's technologically competitive world needs integration of ICT in education. If ICT is aptly adapted, then it will be lifelong learning process for the learners. Without a doubt, technology has revolutionized society in many places around the globe, including how language instruction is taught and delivered. However, a great deal of the success comes from preparing students to interact and learn in this modern environment. Therefore, if we try to integrate technology in our teaching, our new, refocused approach to teaching will propel us a long way to making technology a more rewarding partner in the teaching and learning process.

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