Chapter 3

Technology-Based Education: Challenges of Blended Educational Technology

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ABSTRACT

The expansion of technological applications such as computers and mobile phones in the past three decades has impacted our lives from different perspectives. Educational contexts are no exceptions, and like other environments, they have also been influenced by new teaching sources and software. More recently, there has been a passionate debate about the usefulness of the smart-phones for educational purposes and their possible uses in educational instruction; therefore, in this chapter, a review of the current published literature focusing on the use of technology-based instruction by instructors or students was conducted. The results of the study demonstrated that technology-based instruction has significant effects on learners’ achievements; however, there are some challenges such as social and technical barriers in blending technology and education in different educational contexts.

INTRODUCTION

Everyday life has experienced changes and educational settings are not exceptions. This change is more remarkable and rapid with the advent of modern technologies. Learners, for centuries, have experienced various instruments and method to learn more effectively and rapidly. Teaching in educational settings may be influenced by diverse factors. One of these factors is employing modern technologies in teaching environments. Modern technologies and Information and Communication Technology (ICT) provide extraordinary infrastructure to deliver the knowledge in numerous ways, in different regions with different learners. Information and Communication Technology (ICT) has great impacts on human life from various perspectives. People communicate with each other via new technological devices such as

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mobile phones, social networking, texting via the internet, as well as visiting various webs without limits. Education world is no exception. The use of ICT in teaching and learning might have a positive effect on learners’ academic achievements. Many action plans were adopted at the national and international levels, and considerable investment was made for ICT in teacher education. Most teacher education programs have been redesigning their curricula in order for prospective teachers to become competent users of new technologies when they become teachers (Hartoyo, 2009; Mellati & Khademi, 2014). one of the consequence of modern technology was the advent of new filed in education that was Mobile Assisted Language Learning (MALL).

**Mobile Learning or Mobile Assisted Learning (MAL)**

Employing technological devices in learning improves the quality of education. Social network is a new and updated trend in the technology world that has been referred to networked tools that allow learners to communicate, interact and share their ideas and interests with each other (Anderson, 2010). Social networks such as WhatsApp have opened up new interaction opportunities among teachers and learners. The use of social networks is becoming popular in everyday communication. It is even used for collaborative learning tasks, especially in language learning. Contemporary educational policy, curriculum designing, and instructional pedagogy have been profoundly affected by impressive new global information and communication technologies (CelceMurcia, Brinton, & Snow, 2014). New modern competencies include the ability to collaborate with others on processes of problem-solving, textual co-construction, negotiation, and cooperative production and presentation even when working in different locations and connecting only by these new technologies. Like other fields of study, teaching have also influenced by new teaching sources and software. (Chipunza, 2013). They stated that wireless technologies such as laptop computers, mobile phones, especially smart-phones, create a revolution in education that transform the traditional classroom-based learning into lifelong learning.

Increasing access to internet resources, learners have an affluence of authentic oral, written, linguistic corpora and concordant programs that help them solve their problems. Guy (2010) declared that the field of mobile learning is relentlessly advancing and there are some research studies that explore the advances of mobile technologies in learning environments unfold on a regular basis and there have been several attempts to classify the definitions of mobile learning used in the literature into a comprehensive framework, e.g. Traxler (2010) identified that three categories of mobile learning have been used in past literature. The first category was those early approaches to define mobile learning tended to focus on the nature of mobile devices, referring particularly to handheld or palmtop electronic devices. The next category exhibited a greater focus on mobility, but was largely still directed towards the mobility of the technology. The last category emphasized the mobility of the learners and the learning process. Farley, Murphy, and Rees (2013) stated that those definitions that incorporate a description of the technology are in danger of becoming obsolete as mobile technologies, mobile applications, and the capabilities of these technologies are changing in a rapid velocity. Although previous research studies pointed out several challenges in adopting E-learning environments in language education and in the EFL contexts, it has also identified numerous advantages of such technology-based instructions. Kukulska-Hulme and Shield (2008) demonstrated that Mobile learning (M-learning) or Mobile Assisted Learning (MAL) refers to any form of learning that happens when the learner is not at a fixed, predetermined location. In these kinds of distance learning, learners take advantage of the learning opportunities offered by
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