

# Chapter 11

## Distraction at Mobile Learning Environments: A Critical Review

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### ABSTRACT

*This chapter focuses on distraction at mobile learning environments from different perspectives. It is hoped that this chapter will contribute to the academic discussion on this topic by exploring whether the term ‘distraction’ accurately describes learners’ tendencies to leave the formal, standard, or pre-scribed content and access the non-standard applications and websites during the academic attempts. This chapter will also introduce a more in-depth discussion on the root causes that drive learners’ deviation to the non-standard applications and websites. Furthermore, it will propose and discuss some emerging arguments such as converting ‘learning distractions’ into ‘learning attractions’ in a way that might enhance the academic discussion on theory and practice of mobile learning research. Finally, it will introduce three effective techniques and strategies that have the potential to control distractions in mobile learning environments.*

### INTRODUCTION

Since ‘*Mobile Learning*’ became a well-recognized concept in literature in 2005 (Crompton, 2013; Wong, 2015), research on it has been growing at a rapid rate, especially with the introduction of smart handheld devices such as smart phones and tablets (Crompton, Burke, Gregory, & Gräbe, 2016). Since then, researchers have explored, identified, and shared several affordances as well as challenges that have been associated with Mobile Learning (M-Learning) (Burden & Kearney, 2016; Clarke & Svanaes, 2014; Kaalberg, 2014; Kucirkova, Messer, Sheehy & Panadero, 2014; Mingyong, 2015; Mullen, 2014; Ouyang and Stanley, 2014; Rodríguez, Rianza, & Gomez, 2017; Sung, Chang & Yang, 2015). Amongst the most challenging issues that researchers in the field of M-Learning have explored is learners’ distraction caused by mobile devices (Fang, 2009).

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Mingyong (2015) explained that mobile technologies “might distract students’ attention from the main focus of the teaching process because students might use those devices for other purposes in and outside classroom” (p. 505). Many other researchers share the same concern (Gallegos & Nakashima, 2018; Gikas and Grant, 2013; Harman & Sato, 2011; Jalil & Sabir, 2019; Junco, 2012; Serah, 2014; Kirschner & Karpinski, 2010; Traxler, 2010).

Despite a wealth of research on the topic, to-date, an in-depth understanding of distraction at M-Learning remains however marginal. Hence, it is useful to investigate whether the term ‘distraction’ accurately describes learners’ tendency to leave the formal content and access non-standard applications and websites during the lessons. It would also be interesting to explore the root causes that lead to learners’ deviation to non-standard applications and websites during the academic attempts. Furthermore, it is possible that discussing how to convert ‘*learning distractions*’ into ‘*learning attractions*’ would enhance the academic discussion on theory and practice of mobile learning. Finally, identifying techniques and strategies that can effectively control distractions at M-Learning environments might provide useful insights to program designers, practitioners and administrators.

Reflections on these concepts will be introduced in light of the findings of a PhD study conducted in a M-Learning environment at Saudi Aramco Industrial Training Centres (SAITCs) in Saudi Arabia (Abdelaziz, 2018). In light of this, the following are the research questions for this study:

1. What are the different types and sources of distraction and multi-tasking at M-Learning environments?
2. What are the potential solutions to control distraction at M-Learning environments?

The following section presents a background on the issue followed by the methodology employed, the findings, discussion, and conclusion.

## **BACKGROUND**

This section includes an overview on M-Learning environment with a brief description of its definition, elements, affordances, and challenges. It also provides a focused background on research on the issue of distraction at M-Learning environments.

### **M-Learning Environment**

In a general sense, a learning environment is the medium where learning and teaching take place. It is the sum of the internal and external circumstances and influences surrounding and affecting a person’s learning (Jawaid & Aly, 2014), and it is “dependent upon each and everything in an educational organization like curriculum design, teaching methods, teachers’ behaviour with students, the atmosphere during teaching sessions, the social and academic environment and support system during stress” (Jawaid & Aly, 2014, p. 319). The Glossary of Education Reform referred to ‘learning environment’ as “the diverse physical locations, contexts, and cultures in which students learn” (n.p.). Similarly, for Bates (2019), a learning environment includes:

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