# Investigating Students' Acceptance and Intention to Use Mobile Learning in Moroccan Higher Education

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### **ABSTRACT**

Giving the mobile technologies increasing adoption in Morocco, the authors explore students' intention to use mobile learning in their learning and teaching processes. A survey has been purposely designed targeting final year students from different Moroccan universities. Technology Acceptance Model (TAM) is used to determine students' intention to use mobile learning determinants. The chapter details the data analysis results using descriptive and inferential statistics to test TAM hypothesis and answer research questions. The survey also investigates the main instructional teaching approaches used inside and outside the classrooms. 1298 Responses were analyzed, 44.3% of the respondents were male and 55.7% were female and both show positive attitude and perception towards mobile learning. Smart devices ownership and areas of study proved to be determinants of mobile learning intention to use with large effect size. Student's prior experience, perceived usefulness and perceived ease of use influence the behavioral intention to use mobile learning.

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### INTRODUCTION

The rapid growth of mobile technologies and wireless Networks as well as students and faculty ownership of mobile devices have promoted communication and interactions among virtual communities, enhanced opportunities for collaboration and ready access to information and knowledgeable people. The use of handheld mobile devices is not only adapted for leisure or non-instructional activities, researches have proved they are effective tools for learning and teaching as well. In fact, many research articles associate mobile devices to K-12 education, adult education, lifelong learning, etc. However, mobile technologies use in learning and teaching process is still in its infancy.

Integrating a new concept, especially using new technological advances cannot improve performance if it is not accepted by the end-users (Davis, Bagozzi and Warshaw, 1989). Many studies have been published in this context investigating students' attitude and perceptions towards the educative use of mobile technologies using survey instruments (Al-Fahad, 2009, Wong, Wang & Kwan, 2015, Zhu, Hu & Guo, 2012, Donaldso, 2016). Overall, findings indicate positive attitudes and the respondents welcome the integration of mobile learning in learning and teaching process. Also, the majority of students agreed or strongly agreed that using mobile devices can enhance their study effectively.

In Morocco, statistics show a clear use and ownership growth of mobile devices and a growing access to mobile applications networks. In fact, according to a report of the National Telecommunication Regulatory Agency (ANRT), 94.4% of individuals aged between 12 and 65 years are equipped with mobile devices and 54.7% of them own smartphones (ANRT, 2016). However, studies investigating mobile learning in this country are very limited. Thus, the authors were encouraged to conduct a survey to explore Moroccan students' acceptance and intention to adopt mobile learning in their academic process.

The Technology Acceptance Model (TAM) and its successors TAM2 and TAM3 is the most frequently cited and influential model for understanding the acceptance of information technology and has received extensive empirical support (Meléndez, Obra, Moreno, 2016). TAM can be used to explain the individual likelihood of a new technological advance being adopted within an organization (Zhu, Hu & Guo, 2012). Applying TAM model in the study may allow explaining and predicting factors influencing students' intention to use mobile learning.

In order to objectively respond the research questions, the authors have designed and distributed a questionnaire during 2015 second semester involving students enrolled in different higher education programs from different institutions. 1298 questionnaires were analyzed using SPSS 23 and results are detailed throughout the chapter. After a background section which delimits and presents the concepts used in the research, research questions and TAM hypothesis are presented, as well as the survey design and its sections. Findings and analysis results are detailed in the last part using descriptive and inferential statistics and illustrated with histograms and boxplots.

### **BACKGROUND**

### Mobile Learning

There has been much debate in recent times about mobile learning and its implementation in learning and teaching environments. Literature review reveals three definition categories of mobile learning (Geddes, 2004, Demirbilek, & Demirel, 2010, Stevens & Kitchenham, 2011; Zukafly et al., 2011) i) techno

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