

Chapter 4

Applied Competences for Students by Using M-Learning Devices in Higher Education: Knowledge, Skills, and Attitudes

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ABSTRACT

The purpose of this chapter is to present a case study for evaluating the competences (knowledge, skills, and attitudes) applied by students in Higher Education by using m-learning devices in a course taught in an online distance education. The research question was: Which skills do the students need to learn through m-learning devices? Two variables used in this study were: m-learning and learning technology skills. The results shows that m-learning becomes an extension, addition and/or evolution of online studying and that the student requires a set of basic knowledge and skills to handle cell phones and iPods as learning tools. Students also develop skills in computing, communication, productivity, relationships, leadership, self-study while being involved in a study mode such as mobile learning. Students also require competences such as self-management, evaluation and selection of information, creativity, communication and collaborative work.

INTRODUCTION

In the field of education, there is a new mode of learning based on the use of mobile devices (like cell phones, iPods, tablets and others) and this is called *m-learning* or mobile learning; which aim is to give the students the opportunity to develop and strengthen competences (knowledge, skills and attitudes), with the ease of learning anywhere and anytime and as an option to enhance their learning. Therefore, this chapter presents a case study that was done on students of an online program in Higher Education that learned under the *m-learning* mode.

One of the main issues that is presented and discussed in this chapter is that although Information and Communication Technologies (ICT) have developed rapidly, and teachers and students have the opportunity to use this for the learning processes, there are every day more and more people, especially in adult education, that need the facilities for time and space for learning but do not have the required competences, and probably most of them, also do not have the abilities for using complex devices. In this way, although cell phones and iPods are at the moment pretty basic, six years ago they were not, and they still are not for many adults that want a Higher Education. Thus, this research provides information that gives an inside look for teachers and students about the competences needed to face the mobile learning mode. It will help to find areas for improvement either in materials, content or in the ways of confronting the student to this mode, in such a way that the educational practice for teachers, students and institutions could enrich themselves.

The issues raised in this study reflect a modern society where economic, social and cultural phenomena have global importance and learning how to learn is paramount. Under this scenario, some educational methods such as: online education, education through mobile or *m-learning* ;and within these concepts such as education mediated by Information Technology, educational platforms, digitization and development have emerged such skills (Cabero, 2007).

The study case presented here includes the analysis of the knowledge students are applying in the use of the *m-learning* devices in a graduate course taught in the distance education mode in order to generate the skills that will enrich the subject area. The sample used for this study has some important demographic characteristics such as: they were all adults, postgraduate students, they all worked full time, they lived far away from the university, they all lived far away from each other and most of them had limited access to technology and/or communication. Based on this outlook and the gap in terms to meet the necessary learning through mobile devices skills, the research question was: What skills students require in learning through *m-learning* devices? Therefore, although the research question is focus on skills, the overall objective of this study was to analyze the knowledge, skills and attitudes that students are applying in the use of *m-learning* devices in distance education, in order to generate knowledge that enriches this area of discipline and provides information that may be useful for those who work with a learning environment of distance education and specifically at Higher Education level.

The chapter is organized first with some literature review and background of the problem itself, followed by the main body of the chapter that is: the description of the case study (methodology and results) and with the solutions and recommendations for the issues that are raised. Finally, the last section of the chapter includes what are the trends for future work, an overall conclusion and the key terms and definitions that had been used.

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