

Chapter 7

Model for Identifying Competencies and Learning Outcomes (MICRA)

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ABSTRACT

This chapter introduces and describes an innovative model for a thorough, organized and systematic analysis of the educational context – the MICRA model (model for identifying and classifying Competencies and Learning Outcomes), based on the official documents of the Course Units (syllabus and assessment components). The MICRA model was validated by means of a case study. Competencies and Learning Outcomes were identified in the Computer Science Course Units of the Accounting and Business Administration degree at the Institute of Accounting and Administration of Porto (ISCAP/IPP). We are aware that the adoption of this model by different institutions will contribute to the interoperability of learning outcomes, thus enhancing the mobility of teachers and students in the EHEA (European Higher Education Area) and third countries.

INTRODUCTION

Today's students represent the first generations to grow up with this new technology. They have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age (Prensky, 2001).

In general, the scientific community shares this point of view with Prensky (2001). However, does

ICT integration ensure a better quality of higher education? Is a daily “digital native” student capable to manage his/ her learning process? What are the factors to take in consideration to help autonomize students?

Student autonomy is that educational approach that allows learners to take responsibility and control of their learning and helping them to move gradually from a state of dependence. The student has, thus, the main role in learning process. The

DOI: 10.4018/978-1-5225-0039-1.ch007

teacher is the guide and facilitator who affords the best conditions for students.

On the other hand, mobility in higher education contributes to the expansion and academic exchange and transfer of knowledge and innovations. Mobility is essential to ensure higher quality education and is also an important pillar for exchange and collaboration with other parts of the world.

Thus, it is necessary to create a coherent, compatible, competitive and attractive space for students and teachers, not only from Europe but also from third countries, where teaching and research can be shared.

The development of tools for comparing curricula is of special interest in the EHEA context because it has the potential to promote the improvement of the syllabus of different educational institutions and allow these to harmonize with the demands of the labour market and international trends in corresponding sectors of the economy, which, in turn, may increase the overall quality of education, and in particular, facilitate the mobility of students. On 23 April 2008, the Presidents of the European Parliament and of the Council of the European Union signed the Recommendation on the European Qualifications Framework for Lifelong Learning (EQF) (European Commission, 2008), being formally adopted.

In this context, the development of a model that defines the learning outcomes is very important.

This chapter is divided into six sections. After a short introduction, Section 2 reviews the literature dealing with education, particularly higher education, paying special attention to related concepts and definitions as they are understood and used in the ambit of this work.

Section 3 describes in detail how this research was designed and carried out. The section begins with the identification of the problem, followed by a description of the research lines and the general and specific aims of this work, as well as by the research strategies adopted in order to generate and analyse the empirical data that may answer the initial questions.

Section 4 presents the structure and architecture of the MICRA model, aimed at identifying and classifying competencies and LO (Learning Outcomes) pertaining to computer-related CUs (Course Unit), based on the CU Outlines of a BS on Business Administration.

Section 5 describes the MICRA validation case study conducted on the computer-related CUs included in the curriculum of the BS in Business Administration and Accounting at Instituto Superior de Contabilidade e Administração. At the end of this section the model's advantages and shortcomings are pointed out.

Finally, section 6 is devoted to listing the contributions and limitations of this research, as well as several suggestions for further research work on the subject.

BACKGROUND

The idea of a European framework for higher education began to take shape long before 1992, when the Maastricht Treaty was signed. As stated in that Treaty on European Union, one of the main goals of the European Community (today European Union) was the creation of a common market with free movement of workers and students due to the equivalence of curricula (União Europeia, 1992). Though based on a common denominator, this system should reflect each country's social, cultural, political, economic, religious and ethical characteristics. As a consequence of such diversity, however, the mutual recognition of qualifications and degrees among European countries has not always been straightforward, thus jeopardizing cultural exchanges within the free market.

It was therefore necessary to organize a European system of academic recognition by harmonizing the existing curricula, thus allowing for school exchanges as put forward by the Bologna Process. The answer to this need came through the 2010 Budapest-Vienna Declaration on the European Higher Education Area, which is to be consolidated throughout the following decade.

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