Chapter 8
Developing Key Competences for Life–Long Learning through Virtual Collaboration: Teaching ICT in English as a Medium of Instruction

Margarita Vinagre
Universidad Autónoma de Madrid, Spain

ABSTRACT
This study presents the findings from a group of forty-nine fourth year undergraduate students who were trained in a blended learning environment over two months in order to acquire base knowledge and hands-on experience about information and communication technologies (ICT) and their possible applications to the EFL classroom. The course was taught in English as a Medium of Instruction (EMI) and participants worked in a wiki designed specially to facilitate discussion and collaboration in the foreign language. Data were gathered from the participants’ answers to an end-of-course questionnaire that featured eight five-point Likert-scale questions and five open-ended questions; quantitative and qualitative analyses were then performed upon the answers. Our findings and discussions elaborate on the impact the course had on the participants’ perceptions regarding the acquisition of key competences for life-long learning.

INTRODUCTION
Many important changes have taken place in Higher Education (HE) in Europe since the Bologna process was launched in 1998 with the aim of creating a European Higher Education Area (EHEA) in which diverse HE systems could converge. The need to strengthen the connection between the education system and the business world has been a priority in this process. To fulfil these goals, university study programmes have included a series of reference points that are described in terms of learning outcomes and key competences1 for life-long learning that students are expected to achieve by the time they graduate. Learning

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outcomes refer to what students are expected to know, understand, and be able to demonstrate after the learning experience. According to the European Commission (2007), these transferable competences are a combination of knowledge, skills, attitudes, and values that are particularly necessary for personal fulfillment and development, social inclusion, active citizenship, and employment. The development of these competences, which are a major factor in innovation, productivity, and competitiveness, also guarantees greater flexibility in the labour force by allowing it to adapt more quickly to the constant changes of an increasingly interconnected world.

Many studies and reports have provided frameworks with descriptions of key competences for life-long learning (European Commission’s Framework of Reference, 2007); the OECD’s Definition and Selection of Competencies (DeSeCo) Project, 2005 and the Tuning Higher Education Project (González & Wagenaar, 2005; Villa & Poblete, 2008). These key competences have also been described by many authors (Marin et al., 2011; Penttilä et al. 2012; Shuman et al., 2005). In this study we shall adopt the European Commission’s proposal (2007) which considers the information in Table 1 as key competences for life-long learning.

To date, research on key competence development in educational environments has highlighted that only a limited number of these competences have been assessed. Thus, a report by Eurydice (2009) emphasized that only three competences, namely communication in the mother tongue, communication in foreign languages, and basic competences in mathematics, science, and technology, are commonly assessed in national tests. By contrast, in many European countries, other core competences such as learning to learn or social competences were not formally assessed (Eurydice, 2009). These lesser assessed competences included digital competence, learning to learn competences, social competences, sense of initiative and entrepreneurship, and cultural awareness. Similarly, the European Commission (2010) itself found that, in comparison with subject knowledge, the challenge of assessing key competences across the curriculum was “acute and ongoing”. Current efforts to address this issue include efforts by Alsina, Boix, Burset, Buscà, Colomina, García, Mauri, Pujolà & Sayós, (2011), Blömeke, Zlatkin-Troitschanskaia, 

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<th>Competence</th>
<th>Knowledge, Skills, and Attitudes</th>
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| Communication in foreign languages: This involves the capacity for listening, speaking, reading, and writing in the foreign language, together with mediation and intercultural understanding. | • Ability to communicate in a second (foreign) language  
• Appreciation for diversity and multiculturality |
| Basic competences in science and technology: These competences refer to the mastery, use, and application of knowledge and methodologies that explain the natural world. These involve an understanding of the changes caused by human activity and each individual's responsibility in this process. | • Capacity for analysis and synthesis, abstract, and analytical thinking  
• Grounding in base knowledge (knowledge and understanding of the subject area)  
• Ability to make reasoned decisions  
• Research skills  
• Ability to act on the basis of ethical reasoning |
| Digital competence involves the confident and critical use of information society technology and, thus, basic skills in information and communication technology (ICT). | • ICT digital skills  
• Information management skills (ability to retrieve and analyze information from different sources) |
| Learning to learn refers to the ability to pursue and organise one's own learning, either individually or in groups, in accordance with one's own needs, whilst being aware of methods and opportunities. | • Ability to plan and manage time  
• Ability to identify, pose and resolve problems  
• Critical and self-critical abilities  
• Capacity to learn and stay up-to-date with learning  
• Capacity to apply knowledge in practical situations  
• Ability to work autonomously |