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e-Learning and Team-based Learning. Practical experience in virtual teams

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Abstract

This paper analyses the execution and evaluation of team-based learning in a virtual learning environment. It describes the methodology and the results of a practical experience in the Management Skills subject of the Degree in Business Administration and Management offered at the Open University of Catalonia (UOC). The aim is to gain experience in designing an effective model that fosters team-based learning for the acquisition and evaluation of generic competencies via group e-learning.

Keywords: Team-based learning; e-learning; collaborative process; generic competences; synchronous and asynchronous communication.

1. Introduction

Teamwork is one of the most sought-after competencies in the work environment. Work teams are acquiring an increasingly important role in the functioning of organisations (Gil, Rico, & Sánchez-Manzanares, 2008). They integrate and coordinate the tasks that individuals perform, they support and motivate their members, and they foster organisational learning. They are a more effective tool for obtaining greater returns within an organisation than those obtained by individuals alone (Alcover, Gil, & Barrasa, 2004). However, the literature shows that they do not achieve optimum levels of performance if the cooperation agreements between their members are not satisfactory

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(Salas, Burke, Fowlkes, & Priest, 2004) or if there is a lack of ability to collaborate effectively and work more efficiently (DeChurch & Mesmer-Magnus, 2010). Rousseau, Aubé, & Savoie (2006) have established a set of behaviours adopted by the members of a team whose objective is to facilitate the execution of common tasks. It consists of seven dimensions: (1) cooperation; (2) communication; (3) psychological support; (4) conflict management; (5) work organisation/planning; (6) resource management, and; (7) support for innovation. These dimensions are grouped under two factors: the first factor, namely interpersonal support, and the second factor, namely teamwork management.

This approach can also be applied to collaboration among students. On the one hand, teamwork enables learning to be more proactive and, on the other, it allows more content to be collectively covered (Johnson, Johnson, & Stanne, 2000). Collaborative learning is an innovative didactic approach in the higher education setting. Team-based learning may be considered as a continuous process through which team members collectively acquire or construct new knowledge (Russ-Eft, Preskill, & Sleezer, 1997), obtain and process information in order to improve the team's performance and outcomes (Edmondson, 1999), and develop a group product through the experience of working together (Argote, Gruenfeld, & Naquin, 2000). The advantages of teamwork have been reported in many studies (Roberts, 2005). One of the benefits is that it results in the improvement of generic competencies, among which are teamwork competencies (Guitert, 2011).

In this respect, training in generic competencies, one of which is teamwork, is crucial to improving the employability of university students. It will be necessary to establish learning strategies that permit the basic principles, skills and behaviours to be developed. These should enable each team member to perform tasks effectively and to have relevant attitudes in order to promote the effective functioning of the team. In order to achieve optimal administration and management, this methodology aims to have greater impact on the process than on the outcome (Stahl, Koschmann, & Suthers, 2006).

Collaboration is also one of the distinctive characteristics of e-learning (Garrison, 2006). The use of flexible and innovative distance learning methodologies, the intensive use of information and communication technologies (ICTs), and the acquisition of competencies in a collaborative and active learning environment are some of the factors explaining the considerable growth of e-learning in recent years (Andrews & Haythornthwaite, 2006).

Based on this general framework, the application of team-based learning approach to e-learning is proposed. It allows students to practice using the content in collaborative experiences that facilitate active learning. It means that a range of group tasks and activities need to be designed to improve learning and promote the development of self-managed learning teams (Michaelsen & Sweet, 2008). The students' participation leads to a common solution to the problems posed in the classroom. This methodology entails modifying the role of the lecturer, the core aspect of which becomes the design and management of the instructional process. For their part, students take responsibility for the acquisition of knowledge and skills in an autonomous manner in order to contribute to the progress of the group work. In this respect, the rationale of this methodology is based on providing the groups with suitable guidance and training, designing tasks and activities that promote learning, giving appropriate and regular feedback, and making the students responsible for the quality of their work (Michaelsen & Sweet, 2008).

2. Methodology

This paper presents a practical experience of team-based learning in an e-learning context. It is based on dealing with and resolving situations that the students will face in the work environment, and on the subsequent critical analysis of the functioning of the team. The students are therefore encouraged to explore and develop individual and group competencies.

2.1. Objectives

The experience has the following objectives:

- To develop learning strategies that promote the effective functioning of the team (principles, skills, behaviours and attitudes).