Chapter 7
Promoting Interaction in an Asynchronous E–Learning Environment

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ABSTRACT

Interaction is at the heart of the online learning experience. Theorists consider interaction a defining characteristic of education and regard it as vitally important in the design of e-learning courses. Interaction is a significant component in promoting learners' positive attitudes towards online education and affects their educational performance. This chapter examines the various ways an e-learning environment can promote interaction among participants by using the appropriate communication tools. It presents the results of a pilot e-learning course, confirming that different types of interaction can be promoted at a high level in an online environment and will contribute effectively to the achievement of the learning objectives.

INTRODUCTION

Learners in an online environment have to deal with barriers related to many factors, such as difficulties in accessing the course, technology usability, trusting and/or accepting ICTs in communication, feelings of isolation due to the distance from the educator and other learners, as well as lack of social interaction (Waltonen-Moore, Stuart, Newton, Oswald, & Varonis, 2006; Karalis & Koutsonikos, 2003; Gannon-Leary & Fontainha, 2007).

In their survey, Muilenburg and Berge (2005), identified eight factors as being substantial bar-

riers to online learning: administrative issues, social interaction, academic skills, technical skills, learner motivation, time and support for studies, cost and access to Internet, and technical problems. According to their survey, the single most important barrier to students learning online is the lack of social interaction.

Lack of interaction appears to be the greater barrier in asynchronous communication modes and it should be dealt with, as interaction is considered a very important factor in adult education. Consequently, an effective educational environment has to face all of the above mentioned barriers

and promote interaction among participants, as this affects the nature and quality of communication and learning (Pavlis Korres, Karalis, Leftheriotou, & Garcia Barriocanal, 2009; Grooms, 2003; Merlose & Bergeron, 2007).

In the first part of this chapter we focus on the notion of interaction in an online environment and we elaborate on the communication tools which could be used in an asynchronous communication mode to help promotion of interaction among participants (educators and learners). In the second part we present the level and the different types of interaction which have occurred during a pilot e-learning course, carried out for the education of educators of Roma in Greece and aiming at the improvement of their compatibility with their Roma learners.

INTERACTION IN ONLINE LEARNING ENVIRONMENT

Interaction is at the heart of the online learning experience. Moore's (1989) transactional distance theory considers interaction a defining characteristic of education and regards it as vitally important in the design of distance education.

Researchers have shown that interaction is a significant component in promoting learners' positive attitudes towards distance education: when learners perceive a high level of interaction they are more satisfied, while, when they perceive low interaction, they are dissatisfied, which affects their academic performance. (Booher & Seiler, 1982; Thompson, 1990; Fulford &Zhang, 1993; Muirhead, 2001).

Moore (1989) identified three kinds of interaction that support learning: learner-content, learner-instructor, and learner-learner interaction.

Learner-content interaction is the process in which students examine, consider, and process the course information presented during the educational experience. According to Moore and Kearsley (1996), "Every learner has to construct

knowledge through a process of personally accommodating information into previously existing cognitive structures. It is interacting with content that results in these changes in the learner's understanding" (p.128).

Learner-instructor interaction is communication between the learner and the instructor within a course. In the case of online learning, such interaction usually occurs via computer-mediated communication; is not strictly limited to instructional communication that occurs during the educational experience, but may include advising, offline communication, and personal dialogue. Interaction with instructors includes the myriad ways by which instructors motivate, enhance and maintain the learners' interest as well as the ways they present information, demonstrate skills, model attitudes and values, or organize, evaluate, counsel, support and encourage learners. According to Rovai (2002) in Asynchronous Learning Networks (ALN) learner-instructor interaction takes the form of intellectual discussion or stimulating exchanges of ideas. He stresses that facilitating productive interaction is probably the most important responsibility of an online educator. Rovai considers interaction one of the four dimensions (spirit, trust, interaction and learning) of the classroom community. A strategy that enhances these four dimensions should result in stronger feelings of community. If our aim is a strong sense of classroom community, we should learn how to enhance these dimensions, in order to promote within the communities a sense of well being, quality of the learning experience, and effective learning.

Finally, learner-learner interaction is communication between two or more learners, alone or in group settings, with or without the real-time presence of an instructor. Such interaction often occurs via asynchronous computer-mediated communication, although it may include other forms of interpersonal and small group communication, either online or offline, that might occur during the duration of a course. Learner-learner interac-

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