

# Chapter XXI

## Building a B–Learning Strategy

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### ABSTRACT

*The purpose of this chapter is to describe the wide literature review made on computer mediated learning. Online Education system may include models and methodologies based on learning theories that support individual styles and contexts. The use of e-learning environment is limited only by the creativity. If we just decide for providing online contents, even if they are well constructed, at long term it may become uninteresting and based only on theory. We cannot state that e-learning has either more or less quality than traditional learning. E-learning quality depends on the instruction design and on the students engagement. In this review of literature, the authors combine different points of view. A theoretical model that emerged from the inquiry made will be showed and may support the integration of technologies, in order to enhance the learning.*

### INTRODUCTION

The MIPO model (Model of Integration by Objectives) described in this chapter presents a b-learning instructional design that relates information which is practical, as well as applicable to a number of situations and can also be enriched with practice. It gathers ideas from different authors and gives an approach to the instructional design. As a result, we have incorporated

behaviorism, cognitivism, constructivism and socio-constructivism approaches into this model in order to get the benefits of each one.

An effective instructional design model is both flexible and adaptable. There are not two designers approaching a problem in the same way and there are not two problems exactly alike. This model is based on what we know about learning theories, information technology and blended-learning.

The information, concepts and procedures here presented may give support to teachers and instructors, instructional designers and planning teams – anyone who wants to develop effective e-learning instructions.

## **BACKGROUND**

“Learning is an individual, dynamic and interactive process of knowledge construction. In this process, earlier experiences that influence present actions and allow the cognitive re-building are used”(CNS, 2006). The process is personal because adhesion is always optional. It is dynamic because we can see the changes in behaviors. Aguiar Falcão (2006) adds the following features: global, continuous, gradual and cumulative process. Learning is a global process because it demands the interaction among different kinds of knowledge. It is continuous because it is a human and a character-construction feature. It is gradual because it drives from the simplest to the more complex knowledge and skills. At last, it is cumulative because we associate all the knowledge with activities in order to produce new behaviors. In a cognitive point of view, learning demands the use of a set of mental skills, processing information, requires time spent and uses a lot of mechanisms which are associated with memory. Learning is a set of psycho-physiological mechanisms and both cognitive and emotional mental operations that will be visible in further behaviors. We can define Learning as a process of change (Rodrigues & Ferrao, 2006).

Whenever learning is targeted for adult people and is mediated by computer, it is called as a general term - electronic learning or e-learning. E-Learning is a general term used to make reference to computer-enhanced learning. It is commonly associated to the specific field of advanced learning technology, which deals with both the technologies and associated methodologies in learning, using networked and/or multimedia technologies (Wikipedia, 2007). According to

Khan (2005) e-learning is an education environment which uses digital technologies in order to provide a good instruction design, centered on students, interactive and available for everyone at any time.

Hybrid learning or b-learning is the term used to make reference to the combination between traditional and online classroom (Dias, 2004). B-Learning term intends to enhance the best of b-learning but also the traditional classroom (Moran, 2003). In the traditional classroom, it is easier to promote interpersonal and affective relationships, as well as organization of the groups and the teaching-learning process. It is also easier to explain activities sequence, methodologies and schedules. First face-to-face meeting helps tutor to provide start references about subject and present the state of the art. After that, tutors can promote a virtual session using these environment advantages such as: time and space flexibility and the variety of available communication tools. The existence of a new face-to-face meeting might help to summarize process, the deep understanding and the guide towards a new stage of learning (Moran, 2003).

## **E-Learning Systems**

The online environment where we can create, storage and manage the teaching-learning process is named Learning Management System (LMS). A LMS is a web application in which we can manage the teaching process in the perspective of administration/management, pedagogical/Education and also technical, using basic communication tools such as: e-mail, forums, chats, and so on, which support the interaction among participants (Pimenta & Ana, 2004) (Koponen, 2006). For instance, Luvit, Moodle, WebCt, etc.

## **Technical System**

Technical system is the Virtual Learning Environment (VLE). According to the Britain (Britain & Liber, 1999) prototype, we may define two

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