

Chapter V

Evaluation Models for E-Learning: Experiences in Teaching Archaeology

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Η τέχνη της μουσικής είναι άρρηκτα συδεδεμένη με την κουλτούρα που διαμορφώνει κάθε πολιτισμός. Η πολιτισμική εξέλιξη

agenda and new technological implementations. Our experience of coordinating and teaching courses in archaeology and ancient history in the UOC (Open University of Catalonia) may shed some light into such a complex issue.

INTRODUCTION

E-learning is still a quite young discipline that undergoes a continuous process of change due to new potentials that technology brings every day. After hardly 10 years of experience, it is difficult to envisage what is the degree of success of such new approaches to learning. Of course, the number of virtual students is increasing day by day because of the flexibility of such new environments that overcome constraints of time and space (Salmon, 2000; Palloff & Pratt, 2003). However, no such effort has been put into evaluating how the process of learning is taking place and comparing e-learning results with traditional distance learning studies, or even presential courses.

The present chapter attempts to show some evaluation models for e-learning and how their results may contribute to define future research

EVALUATING THE PEDAGOGIC MODEL: THE CASE OF UOC

As it was discussed before (see chapters by J. Campas and C. Girona), virtual learning environments rely on students' effort and commitment to the process of learning (Palloff & Pratt, 2003). Therefore, the whole pedagogical model is focused on students, creating suitable tools and conditions to keep such effort and commitment spirited all over the learning period.

Most e-learning models are based on three main elements: a *virtual platform* where communication takes place, *learning materials* that contained the knowledge to be learned and *learning processes*, together with tutors (consultant professor) who are responsible for guidance in

such learning processes of any particular content. Apart from such basic elements, there are other complementary factors that may enhance the virtual learning environment, such as counsellors (tutorial professors), virtual libraries, teaching curriculum and continual evaluation. The UOC pedagogical model includes all those basic and complementary elements which appear in Figure 1. From the UOC foundation in 1994, a significant effort has been put on evaluating all those elements of the pedagogical model in order to improve its learning environment, as well as keeping track of technological developments. Such evaluations and later evolution can be clearly seen from the history of UOC technological model¹, one of the key elements in the whole educational system.

Initial evaluations were basically online satisfaction questionnaires to be answered by students, tutors and counsellors in order to know whether the learning environment and their components were suitable for e-learning processes. They were standard quantified questionnaires mixing enquires going from general questions about the virtual campus or the figure of counsellors to related to every particular subject and tutor. They kept the same questionnaire every term; so after few terms, student and tutor participation decreased by around 20%.

Together with satisfaction questionnaires, another way to acquire information about how the pedagogical model worked was simple indicators of students' success. In other words, percentages of students obtained particular marks or passing subjects. Besides, some particular evaluations such as the figures of tutors and counsellors required a different methodology, which included interviews.

However, in the early 2000s, the UOC decided to develop the technological model and revise the virtual platform. Such specific development involved a more systematic way to evaluate only the technological part with the support of an external firm such as Gartner Group. First of all, a comparative analysis of other educational virtual

platforms according to some critical factors provided by Brandon-Hall report², Gartner Group analysis and the UOC own evaluation. Then, a second stage of the evaluation involved interviews with focus groups of a stratified sample of the UOC educational community. Such interviews attempted to acquire information on technical requirements of each particular university group. Concepts such as *utility*, *usability* and *accessibility* were key in the future technical developments of the virtual environment.

This specific analysis of only one of the key elements of the UOC e-learning model, *the virtual platform*, showed that evaluations should be focused on each of the elements in order to adjust methodologies and obtain accurate results. Therefore, evaluations since then have been focused more on separate element such as *learning processes* or *materials* than overall views.

EVALUATION OF LEARNING PROCESSES

The success of the whole e-learning model lies in the degree of accomplishment of students' expectations in terms of acquiring knowledge and if this knowledge is valued by the rest of society. Thereby, it is important to take into account the students results, their opinion (satisfaction) and the opinion of our own society.

Students Results

Every term, results obtained by students are quantified and analyzed according to subject. In the Department of Humanities of the UOC, normally between 65-70% of students pass our subjects³, though there is certain variability according to typology of subjects and whether it is attended when students start their university life. Any variation from the normal pattern expected, calculated with the help of statistical indicators (i.e., means, medians, standard deviation) and

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