Chapter 13
Evaluation of E-Learning

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ABSTRACT
Evaluation is an important measure for quality control in e-learning, which aims at improving a learning environment and adapting it to users’ needs, as well as proving values and benefits of a course to financers and participants. However, results and styles of evaluation are subject to the designers’, the evaluators’ and the participants’ individual and socio-cultural backgrounds. This paper examines evaluation from an infrastructure perspective and presents dimensions and parameters for the evaluation of e-learning. The authors take cognitive, epistemological, social and technical infrastructures into account.

1. INTRODUCTION
E-learning has evolved intensively over the past decade technologically as well as concerning its scope. E-learning means the acquisition and use of knowledge distributed and facilitated primarily by electronic means (Learnframe.com, 2005). Beginning with text based measures that were presented on media like CDs only 10 to 15 years ago, e-learning nowadays use all possible electronic media and hardware to serve the learner with multimedia, virtual and personalized contents. This enlargement—technologically and with regard to content—poses new challenges on evaluators. They relate mainly to the rapid development of e-learning and the associated changes in infrastructures (Ertl, Winkler, & Mandl, 2007) as well as in missing experiences in the applicability of the new technologies for beneficial learning. Both aspects emphasize the need for appropriate quality management that can be established by thorough evaluation.

Stockmann (2000) defines four possible results of an evaluation: to get insights into a project and receive data necessary for decisions, to get control over a project and to be able to make refinements, to establish a dialogue between different stakeholders, e.g. financiers, providers and the target
Evaluation of E-Learning

Another reason to broaden the efforts in evaluating e-learning is the growing market: not only the quantity of e-learning measures and products evolved strongly during recent years, but also the array of recipients increased intensively: young adults with academic qualification take masterprograms at distance universities to qualify themselves during they are in job (Schnurer, 2005), undergraduate students have the choice to study at home without attending presence courses, adults without higher formal qualification try to educate further while taking e-learning-courses of private institutions (Erlach, Hausmann, Mandl, & Trillitzsch, 2002) and so on. Having this in mind, it might not only be scientific interest but mere practical need to evaluate e-learning further.

Taking a collaborative perspective on e-learning and its evaluation, we may have to deal with some additional peculiarities (Resnick, Levine, & Teasley, 1991). According to this perspective, learning is more than the pure cognitive act of knowledge acquisition - it includes the participation in cultural practices (Sfard, 1998) and the enculturation in a community (Lave & Wenger, 1991).

In this contribution, we will first have a look on the goals of an evaluation. Then we will focus on evaluators and show which perspectives designers of an e-learning environment, participants of a course, and external experts have towards evaluation. After that, we’ll describe two styles of evaluation, a process oriented one (formative evaluation) and a product oriented one (summative evaluation), and will then give a short overview of possible methods convenient to formative or summative evaluation demands. Finally, we will deal with dimensions and parameters for evaluating e-learning and discuss policy impacts of evaluation.

2. GOALS FOR EVALUATION

Evaluation may have different goals, and program-particular goals may influence the issues of the
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