Chapter II
Assessing Teaching and Students’ Meaningful Learning Processes in an E-Learning Course

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ABSTRACT

In this chapter the authors report on the assessment framework and practices that they applied to the e-learning version of the Network Management course at the University of Lapland’s Faculty of Social Sciences. The objective of the assessment was to examine students’ perspective regarding how a digital video-supported, case-based teaching approach supported students’ meaningful learning. The model for teaching and meaningful learning (TML) was used as the theoretical assessment framework. To answer the research questions, the authors gathered data through questionnaires completed by the students. The assessment provided them with evidence concerning the student perspective on teaching and learning processes during the e-learning course. The authors will describe and discuss this evidence in this chapter. In addition, they discuss the strengths and limitations of the assessment framework, and practices that they applied to the Network Management course.
INTRODUCTION

In this chapter, we report on the assessment framework and practices that we applied to the e-learning version of the Network Management course at the University of Lapland's Faculty of Social Sciences. As the assessment framework, we used a model for teaching and meaningful learning (TML) that we developed over a series of research projects (see Hakkarainen, 2007a, 2007b; Hakkarainen & Saarelainen, 2005b; Hakkarainen, Saarelainen, & Ruokamo, 2007; Karppinen, 2005). The TML model consists of teaching and meaningful learning, which is defined in terms of 17 process characteristics and expected outcomes. Students enrolled in Network Management completed a questionnaire measuring these components of the TML model. Rather than focusing on assessing students’ learning outcomes, this chapter focuses on assessing student perspectives on the course’s teaching and learning processes. Therefore, we consider the assessment to be a formative assessment which provided us with evidence concerning the student perspective and helped us evaluate the course and understand the need to revise teaching and learning activities (see also Bransford, Brown, & Cocking, 2001; Poikela & Poikela, 2006).

Our objective in this chapter is to show how the questionnaire we devised and utilized proved to be a useful assessment tool in gathering evidence of the e-learning students’ perspective on teaching and meaningful learning processes in the Network Management course. Due to the poor availability of nonverbal behaviour in typical e-learning settings (Matuga, 2005), we have experienced a strong need to use assessment practices to find out what students are thinking and feeling, how their learning proceeds and how they experience the course design.

The chapter begins with a presentation of the Network Management course and the TML model used in the assessment. Next, we present the assessment practices and their results. Finally, general conclusions are drawn and the applicability of the TML model as an assessment framework is discussed.

THE E-LEARNING VERSION OF NETWORK MANAGEMENT

Network Management was implemented online in spring 2005 for students in the final stages of their master’s degree in the Faculty of Social Sciences. The focus of the course is public administration and management, with the aims being that students learn to 1) define a network as a structural and functional form of inter-organizational cooperation, 2) understand how organizational management and leadership differ from network management and leadership, and 3) distinguish different types of networks and understand their limitations. These course goals can be expressed in terms of more specific objectives corresponding to the cases taken up in the course. The rationale for the online implementation was to allow students to develop the desired skills while working in electronic environments, as these are rapidly becoming the norm for employees in public administration (see Schedler, Summerrmatter, & Schmidt, 2004).

Thirty-three students enrolled for the two-month course. They ranged in age from 22 to 51 years and were spread throughout the country. Following a four-hour introductory, face-to-face lecture, the students embarked on case-based work in groups of three to five using the Finnish Discendum Optima learning management system9. This environment, similar to WebCT and Blackboard, enabled the teacher to provide guidance and facilitated small group conversations, delivery of course materials and preparation of assignments.
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