Chapter 6
E-Collaboration in Educational Organizations:
Opportunities and Challenges in Virtual Learning Environments and Learning Spaces

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ABSTRACT

The chapter explores the use of virtual learning environments (VLE) to support learning spaces in schools/universities and illustrates their advantages to enhance e-collaboration and its key dimensions. Case studies of learning management systems (LMSs) point out the use of synchronous or asynchronous communication and highlight the advantages, the requirements, and the relevant constraints. In particular, this chapter emphasizes in the development of e-collaborative experiences at schools/universities based on LMSs to support both students and educators in their complex work. VLEs will be presented aiming to e-collaboration and their numerous services to enhance differentiated pedagogy. Case studies of e-collaborating in communities of practice and exemplary LMSs are illustrated in a comparative table highlighting how they support key dimensions of e-collaboration. Finally, the chapter highlights discussion themes raised by e-collaborating in VLEs and generally in learning spaces. Proposals for further development of e-collaboration and conclusions are drawn and commented.

DOI: 10.4018/978-1-7998-4891-2.ch006

INTRODUCTION

Today's students, an expression used by Marc Prensky in his paper "*Digital natives, digital immigrants*" back in 2001, represent the Net generation having grown up within digital technology. To use his own words, Prensky said for them *they have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age [....] Computer games, email, the Internet, cell phones and instant messaging are integral parts of their lives* (Tapscott 1998, 2009; Prensky 2001; Palfrey and Gasser 2008, Bayne 2011).

Hence, pupils and students of the *Net Generation (Net Gen)* need flexible studies and strongly connected with contemporary technologies. These needs of students today lead to the increasing importance of redefining educational *physical & online space*. On the other hand, all, educational organizations face the challenge to make the shift from in person learning in class or campus to a blended environment of combining face-to-face and online activities. A new teaching and learning blended ecosystem for all educational organizations rises. Collaborating in both physical and virtual spaces (*Learning Spaces*) is a key aspect of that blended ecosystem.

The chapter explores the use of *Virtual Learning Environments (VLE)* to support *Learning Spaces* in Schools/Universities and illustrate their advantages to enhance **e-collaboration** and its key dimensions. VLEs are Web-based platforms that provide teachers with a concrete structure for the creation, storage, and access to online courses which use resources, activities, interactions and different stages of assessments. Case studies of *Learning Management System (LMSs)*, point out the use of various services of synchronous or asynchronous communication and highlight the advantages, the requirements and the relevant constraints. In particular this chapter emphasizes in the development of e-collaborative experiences at Schools/Universities based on LMSs to support both students and educators in their complex work.

This chapter introduces teaching at a distance and the essential need of supporting students in the **first unit**. The **second unit** presents definitions for e-Collaboration and the key dimensions to achieve it. It also focuses on the key aspect of collaborating in both physical and virtual spaces (*Learning Spaces*) aiming to the Net generation learners. The **third unit** approaches the concept of *Communities of Practice (CoP)* and focuses on two case studies, those of "etwinning" and "Teachers for Europe" (T4E) as best practices of educational CoPs which promote e-collaboration and use both virtual and physical spaces to enhance collaborative activities. A special "etwinning" project entitledd "Digital stories" is described thoroughly as an exemplar case study of e-collaboration in a Learning Space.

Virtual Learning Environments which support e-collaboration will be presented in **the fourth unit** and their numerous services to enhance differentiated pedagogy. Exemplary LMSs are illustrated in a comparative table highlighting how their services support key dimensions of e-collaboration. Elaborating LMSs, the *Learning Activity Management System (LAMS)* is proposed as an appropriate open *LMS* which serves e-collaborative activities with a structured way.

Finally, the chapter highlights discussion themes raised by e-collaborating with *Virtual Learning Environments* and generally in *Learning Spaces*. Proposals for further development of e-collaboration and conclusions are drawn and commented.