

# Chapter 11

## Internet Technology and its Application in Competence Development of Highly Educated Staff: The Role of Transfer

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### ABSTRACT

*This chapter discusses how Internet technology can be used as a distant learning means for individual competence development of highly educated staff. By formulating clear perspectives on competencies, competence development, and transfer, it is argued that Internet technology can only partly be used as a means for competence development. Furthermore, hopes are expressed that by understanding the assumptions underlying competencies, competence development, and transfer, researchers and practitioners find themselves invited to develop varied and effective ways to apply Internet technology in highly educated staff learning processes.*

### INTRODUCTION

Individual competencies of highly-educated staff play a major role in the development of organizational competence: within strategic management approaches, HRM policies (employability, selection and flexibilization) and HRD measures (training programmes, learning and development, on-the-job training) (Blomme, 2003). We define highly educated staff as employees who have followed

a higher education programme at a bachelor's or master's level successfully (Blomme, van Rheede & Tromp, 2010). Individual competence development takes place in formal training situations as well as in informal practice settings in which learners have to deal with practical issues. Simons (1999) coined the term *powerful leaning environment* as a prerequisite for learning and education. The concept of powerful learning environments is specifically related to those circumstances and conditions in

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which learning and competence development can be enhanced, such as learning environments in which learners are challenged and invited to engage in a cooperative and active process of learning. In this way, learners are enabled to learn on the basis of intrinsic motivation, and they become encouraged to take active and independent control of their individual learning processes. Here, trainers have to adopt various different roles. Sometimes they act as coaches; sometimes they facilitate the transfer of information.

One important issue examined in this chapter concerns the question how Internet technology could be applied in a powerful learning environment in which highly-educated staff members may develop their competencies. In other words, how can distance learning through Internet technology lead to competence development within organizations? The options presented by modern Internet technology are varied, as illustrated by the availability of information portals, e-learning possibilities and social media, to mention but a few examples. Education literature has clearly shown that Internet technology may not only aid the transfer of knowledge and information, but also that it may promote group work and facilitate the speedy delivery of feedback (Piotrowski & Vodanovich, 2000). In addition, Internet technology is ideally suited to reach large audiences at relatively low costs (Alavi & Gallupe, 2003). Its application in formal training and development situations has been studied extensively, and its effectiveness has become the topic of many lively debates (cf. Salmon, 2005; Barczyk, Buckenmeyer & Feldman, 2010; Sangra, Vlachopoulos & Cabrera, 2012; Li, Lau & Dharmendran, 2008). Still, the question remains how exactly Internet technology can be used via distance learning in attempts to support the development of highly-educated staff competencies in daily practice.

To explore the role of Internet technology in competence development, we shall first consider the concept of competence. Next, we shall explore the ways in which competencies are developed by

defining various different learning trajectories. Subsequently, we shall discuss the concept of transfer. Following our exploration of competencies, competence development and transfer, we shall elaborate on the conditions needed for the effective application of Internet technology in staff learning processes.

## COMPETENCE

We speak of competence when we consider working skills from the perspective of individual practitioners (Brater, 1990). Baits and Frei (1980) view competence as the total combination of plans and action programmes that are available to individual workers for the successful execution of their job tasks. Here, problem solving skills form a central element. Competence denotes a theoretical construct and concerns the specific and interrelated aggregate of available knowledge and skills (Frei, Duell & Baitsch, 1984). Competence is not a mere 'catalogue' of knowledge, ethics and skills, but rather a more *holistic* concept which provides the opportunity to regulate actions and which refers to the ability to use a set of skills in combination with knowledge and ethical considerations in order to carry out concrete activities in an appropriate manner (planning, executing, checking and steering). Additionally, we may describe competence as a practitioner's ability to deal effectively with contradictions and transformations encountered in the employment process (Engeström, 1992). In this sense, competence consists of a complex and multi-faceted cluster of skills. Competence is the hallmark of acting individuals operating within organizations; in principle, it is not limited to the actual set of tasks for which it is used. From an organizational perspective, the essence of competence concerns the potential deployment of employees in a series of tasks that may arise and that need not be pre-defined.

Frei and colleagues (1984) indicate that a competency has three dimensions: one referring

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