Advanced E-Learning Services for Teachers

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ABSTRACT

In Greece, the training system and education can be adapted to distance lifelong e-learning and the teachers, the society and the economy can be benefited via the introduction and training of in-service teachers in (a) the Video Conferencing (VC) technology and mode of distant training, granted that VC is put into a learning framework, and (b) Knowledge Management (KM) methodology, through lectures and seminars. Incidentally, VC technology and KM methodology can be integrated into in-service teacher distance lifelong training and development, and to this end, an example, a hybrid model, of the manner VC technology and KM methodology can be integrated into in-service teacher distance lifelong training and development, that is, a microteaching session via VC and KM, which is advisable for Greek teachers of all specialisations in Greece or abroad, is given.

Keywords: *Distance Lifelong In-Service Training, Knowledge Management, Managed Learning Environment, Microteaching, Video Conferencing*

1. INTRODUCTION

Distance learning is associated with distance education, which is defined as "the process of extending learning, or delivering instructional resource-sharing opportunities to locations away from a classroom, building, or site by using video, audio, computer, multimedia communications, or some combination of these with other traditional delivery methods" (ITC, n.d., para. 1). Interactive distance learning systems are a highly valuable tool in the delivery of education and training to widely dispersed trainees, and in cases where the trainer cannot travel to the trainee's site in accordance with the European Commission's (2001) policy on e-learning, which gives priority to those who live in remote areas or the disadvantaged, since distance education offers opportunities in situations where traditional education has difficulty to operate.

Constructivism provides exciting and unique distance learning environments (Wikipedia, n.d.) supported by computer conferencing, computer-supported intentional learning environments, and computer-supported collaborative work environments, while distance learning that takes place in stimulating learning environments designed on constructivist prin-

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ciples will be more effective (Jonassen et al., 1994). E-learning is suited to distance learning, flexible learning, and blended learning and is associated with advanced learning technology, while in higher education, a virtual learning environment – sometimes combined with a Management Information System (MIS) to create a Managed Learning Environment – is used (Wikipedia, 2008b). Additionally, MISs are used (a) to analyse other information systems which are applied in operational activities in an organisation, and (b) to automate or support human decision making (O'Brien, as cited in Wikipedia, 2008d).

In this paper, focus will be on distance lifelong training for in-service teacher development via video conferencing and knowledge management, granted that teachers will be introduced and trained in the VC technology and mode of distance training as well as in KM methodology through lectures and seminars. Adult education takes place in the context of lifelong education (Brookfield, 1995; Rogers, 2002) and its cardinal goal is to facilitate adults to learn to make their own interpretations rather than act on the judgments, purposes, beliefs, and feelings of others (Imel, 1998). In lifelong learning, education is built into the process of living into a range of special classroom and study activities, while education with wide goals aims to demonstrate that there are many different ways of thinking and doing, and encourages the development of self-determination and choice (Rogers, 2002). Constructivism reinforces this aspect since according to Jonassen (as cited in Wikipedia, n.d.) constructivist learning environments provide multiple representations of reality, which represent the complexity of the real world and enable content- and context-dependent knowledge construction.

Desktop video conferencing, on the one hand, links geographically dispersed groups or individuals using powerful Computer-Mediated Communication technology, which learners perceive as a motivating factor, appeals to different learning styles, and makes learning fun (Firestone, 1999). In interactive VC, which establishes a visual connection among participants, interactive teaching strategies, such as discussion and questioning, make learners active participants, and motivation is greatly improved via real world connection and interaction (Reed & Woodruff, 1995). In higher education, VC facilitates conventional learning with face-to-face meetings and lectures, and distance learning with more class materials and better preparation of teaching materials (Coventry, n.d.). VC technology can operate within an educational system, granted that it has an interactive format and sessions are kept relatively short, it is treated as one component of a multi-mode approach to delivery, and the delivery mode is integrated with new methodologies and accompanied by appropriate professional development (Rowan, 2000).

Knowledge management, on the other hand, is the management of an organisation with a special focus on knowledge (Bornemann et al., 2003). Firstly, according to connectivism, learning is defined as actionable knowledge, resides within an organisation or a database, connects specialised information sets, and the connections which enable people to learn are more important than their current state of knowing (Siemens, 2004). Secondly, connectionists challenge Chomsky's cognitivism and hold that learning and cognition are associated with the manner neurons interconnect and communicate in the brain; construct artificial and highly simplified networks of neurons which exist as computer simulations and are a minute fraction of the size of the real brain, to mimic the behaviour of the brain; and have proved that a network can be trained to perform any mapping operation (Shanks, 1993), that is, to discover, for instance, what knowledge exists at the beginning of a KM project (knowledge audit) (Wikipedia, 2008c).

This paper is organised as follows: Section 2 presents VC in relation to computer-supported collaborative software, the European as well as the Greek Research and Education Network, and the Greek Schools Network. Section 3 presents a premise associated with the manner VC and KM can be integrated into in-service teacher training and development so that the

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