Chapter 12

Metaphors in Interface Design of E–Learning

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ABSTRACT

It is quite important to effectively benefit from e-learning tools and environments which have dynamic structures in order to meet the learning needs of distance learners. E-Learning provides independence of time and space, student-centered, learner-controlled, flexible learning environments and equal educational opportunities. However, this flexibility has increased learners’ self-cognition, self-control and self-responsibility for learning. In order for learners to cope with these issues, it is important to use metaphorical interfaces made up of metaphors as structures that provide clues to understand a new and complex concept, system or model. In this study, three main issues are discussed. These issues are e-learning and distance education, interface designs for distance education and metaphors in interface design. In the last part of the study, the advantages and disadvantages of metaphorical interface design in distance education are discussed. Based on these discussions, some important recommendations provided. The main purpose of this study is to discuss three main issues. These issues are e-learning and distance education, interface designs for distance education and metaphors in interface design. In the last part of the study, the advantages and disadvantages of the metaphorical interface design in distance education and e-learning environments will be discussed. Based on these discussions, some important recommendations will be provided.

INTRODUCTION

Today, use of technology for educational and instructional purposes is gradually increasing. These technologies present a large area for seminars, discussion forums and for other approaches and provide innovative approaches to interactions between teachers and students (Singh, Agarwal and Vipat, 2011). Thanks to e-learning technologies and related developments, e-learning tools are now more easily acces-

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Sensible and are used by adults from different study fields formally and informally. In this way, e-learning technologies come into prominence as an important component of distance education or andragogy.

Advances in information technologies enabled users to benefit from e-learning tools and environments like LMS, CMS, LCMS, e-books, educational simulations, educational games, 3D virtual worlds, video lectures, virtual classrooms, Web 2.0 tools, learning objects, simulations, and video conferencing. With the spread of Web technologies, the use of e-learning environments for educational purposes has gained importance. Especially for adults, in today’s world, it is quite important to effectively benefit from e-learning tools and environments which have dynamic structures in order to meet the distance learning needs. Although e-learning environments have provided a number of opportunities to increase the richness of user interfaces, this richness is likely to bring about over-congestion and complexity due to a large amount of information (Fırat, 2009; Karadeniz, 2006).

Studies in related literature demonstrate that e-learning environments lead to more cognitive load on learners compared to traditional learning environments as e-learning environments include quite a high number of activities which do not support scheme-formation (Chang and Ley, 2006). In this context, the main purpose of this study is to discuss three main issues. These issues are e-learning and distance education, interface designs for distance education and metaphors in interface design. In the last part of the study, the advantages and disadvantages of the metaphorical interface design in distance education and e-learning environments will be discussed. Based on these discussions, some important recommendations will be provided.

BACKGROUND

For individuals and societies to understand the changes and to adapt themselves to these changes, information has become more important than ever before in history (Wu, He, Jiang, Dong, & Vo, 2012). There is a need for individuals who can rapidly reach the necessary information in the globalizing world, who can make appropriate choices of information, who can use the information as appropriate to their goals and who can produce information (Darling-Hammond, 2006). Therefore, in today’s distance education, the importance of information and communication technologies is increasing day by day. Parallel to this, e-learning demands of adults are increasing gradually. The reason is that these environments have the potential to provide adults with opportunities for up-to-date education which has a flexible structure independent of time and place. As e-learning technologies and tools become available in more places and situations, particularly with increased use of the Web technologies to disseminate information, it becomes increasingly necessary for adults to adopt e-learning environments (Zajicek, 2001).

Approaches to different learning characteristics of adults first occurred in late 1940s. Besides the pedagogical education model still valid today, andragogy and andragogical applications have become a current agenda as a new concept. Although andragogy has been accepted as an adult education model since the past mid-century, it is seen that there is limited applied research on the validity of adult learning assumptions of this model and on its usefulness in predicting adult behavior (Merriam, Caffarella and Baumgartner, 2012). Because, the main focus of learning is behaviors changes. The andragogy model regarding adult education and the principles of this model are mentioned under the following section.