

# Chapter 69

## Learner Performance and Satisfaction Level in Personalized Learning Environments

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### ABSTRACT

*The overall aim of this chapter is to determine the personalizable online learning environments and learner participation in these environments, learner satisfaction in using them, and the effect of the environment on learners' course performance in terms of learning. With this purpose in mind, the researchers have tried to determine the learners' personalization preferences of content order and appearance in online learning environments offered and personalization-related satisfaction and performances. In data collection and analysis processes, both quantitative and qualitative methods were used and the study is designed as mixed model. In conclusion, more than half of the students carried out the personalization procedure and females customized the appearance of their environment in a high frequency rate compared to males. The study indicated that, in general, learners are satisfied with the personalization procedure and there is a significant difference in performances of students who fulfilled the procedure compared to those who did not.*

### INTRODUCTION

This study is prepared to investigate the relationship between online learners' preferences regarding personalization of online learning environments, their perceived learning, and performance in online course. Today, the developments in information and communication technologies are the most important

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dynamic of social change. These changes and developments haven't remained in its own borders and affected all sectors as well as the education system. Learning environments which perform educational activities continue to transform faster with these technologies. It is inevitable for the tools used in learning environments to be renewed and updated with the innovations in technology.

In the light of the innovations and rapid improvements in technology, educational policies of countries are built on raising individuals who "learn how to learn", making it possible for individuals to get education in the available period of time and place they want, enabling individuals to learn according to their knowledge level and learning skills (Turkish Informatics Foundation, 2003). One of the ways to implement it is distance education. Distance education provides the tools necessary to meet the growing need of learning and makes learning independent of time and place. It can be said that the distance education activities started in 1870's with newspapers, letters and recently performed on internet technologies. Internet based learning environments; mostly web technologies are used for the distribution of contents, communication and interaction with the learner. Accordingly, these features bring online learning and e-learning into the forefront in performing teaching-learning activities.

With the developments of the technology in online learning environments, it's become possible for individuals to arrange their own learning environment and personalize them in accordance with their needs. The term personalization used in a broad area from the personalization of habitat to the personalization of technological devices and mediums is defined as a process that changes the functionality, interface, information content, or distinctiveness of a system to increase its personal relevance to an individual (Blom, 2000). Personalization practices in online environments can be categorized as system-centered and user-centered. System-centered practices that are made automatically without user intervention whereas user-centered that performed in accordance with individual needs and preferences of the users. Generally, studies of the personalization of web environments in literature are centered upon revealing the size and a general frame of personalization (Fan & Poole, 2006; Miceli, Ricotta, & Costabile, 2007; Palmér, Sire, Bogdanov, Gillet, & Wild, 2009), customizing user profiles (Bouzeghoub & Kostadinov, 2006), displaying products, news, contents and advertisements according to user interests (Lavie, Sela, Oppenheim, Inbar, & Meyer, 2010). In this study authors just focused on two elements of personalization. One is personalization of appearance which consist of changing background color, font size, font color, font type. The second personalization option is content order personalization which allow students to decide content order in learning environment. Therefore, the purpose of this study is to investigate the personalizable online learning environments and learner participation to these environments, learner satisfaction in using them, the effect of the environment on learners' course performance in terms of learning.

## **BACKGROUND**

In this section, first the concept of online learning is mentioned and the topics of satisfaction and performance in online learning and personalization in online learning are discussed.

### **Online Learning**

Developments in communication technologies and emerging of Internet has been a turning point in terms of educational applications and online learning applications have become widespread with the help of

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