

# Chapter 7

## Learning Styles and Online Tools: How to Construct an Effective Online Learning Environment

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### ABSTRACT

*Very few studies in the existing literature elaborated about the learners learning preference and their preferred ICT tools while they were engaging in an online course. In order to fill this gap, this chapter presents different learning styles, which are exhibited by the learners in an online environment. It identifies myriad ICT (information and communication technology) tools and shows association between learning styles and respective ICT tools. It has four main broad areas to discuss: provides general importance of incorporating ICT tools in an online environment; presents four types of learners in an online context, which are characterized by following previous theoretical framework; identifies different learning activities, which are preferred by the four learners; and provides ICT tools along with their web address that are linked with online activities. This chapter shows possible implication towards online education and practices.*

### 1. INTRODUCTION

Over the last few years the widening uptake of, and growing demand for, optimizing student engagement in learning environments through online technology has created an important area for educational research (Rienties, Giesbers, Lygo-Baker, Ma, & Rees, 2016). Many studies have provided evidence

DOI: 10.4018/978-1-5225-3634-5.ch007

about the positive effects of using technology in *Online Learning Environment* (OLE) (Ally, 2004; Anderson, 2008; Stein, Wanstreet, Calvin, Overtom, & Wheaton, 2005; Stephenson, 2001) or *Virtual Learning Environment* (VLE) (Bri, García, Coll, & Lloret, 2009). In this book chapter OLE or VLE are considered having similar meaning. OLE/VLE in this book chapter is defined as a learning space which is offered through online. In OLE/VLE teaching and learning activities are managed by using different digital (electronic) tools through internet connectivity. Online learning allocates for flexibility in learning from anywhere and anytime. Online learning involves e-learning, internet learning, network learning, virtual learning, computer assisted learning, web based learning and distance learning. Researchers have found that, the psychological and communications distance among the learners can be reduced through online interactions and dialogues (Moore, 1993). In addition, online learning facilitates more collaborative learning when students post questions, share ideas, and jointly construct meaning (Curtis & Lawson, 2001). Therefore, online learning is gaining popularity day by day in the arena of dissemination of knowledge and enhancement of teaching and learning. It also helps in developing new skills, and managing educational services and makes them affordable and available regardless of time and space. Besides, online learning may be used for different learners to enhance the quality of learning. Online learning also has the potential to support high-order thinking and in-depth learning in two ways. *First*, online discussion tools automatically record discussions, thus, make it easier for learners to remember, consider, and make connections between ideas. *Second*, the asynchronous nature of online discussion frees learners from time constraints thus increasing the opportunity for in-depth thinking (Şendağ & Odabaşı, 2009). Due to growing interest, teaching and learning through online is gaining popularity in many countries. To meet this interest, the quality of learning in any online courses is a vital issue and a great challenge. This chapter discusses the use and importance of online learning that creates learning environments for the learners. There are different types of learners, who are using different technologies to optimize learning environments. Online learning materials have the potential to greatly contribute to a positive online learning experience when it is used appropriately. However, the learning materials must be designed properly to engage learners and to promote suitable learning environments.

Considering this background, the purpose of this book chapter is to provide a detailed explanation about the nature of students' preferences towards choosing digital tools while they are engaging online learning. This chapter is structured into six sections. *First section* (introduction) draws attentions towards significance of writing this chapter. The remaining five sections are elaborated as: *Section 2* presents about the importance of incorporating ICT (Information and Communication Technology) tools in an online context; *Section 3* discusses students' diversity in an online environment; *Section 4* presents different types of learners and their characteristics in an online contexts towards choosing ICT tools, this section also identifies diverse learning activities that may attract different learners; *Last section* discusses a brief conclusion that includes recommendation and future guidelines.

## **2. IMPORTANCE OF INTEGRATING MYRIAD ONLINE TOOLS**

Online learning tools provide huge opportunities and applications for facilitating teaching and learning activities in a remarkable way; for instance, by using different ICT tools students or teachers may able to access myriad benefits towards pursuing their learning and teaching that may not manageable without using these ICT tools (Bri, García, Coll, & Lloret, 2009). The online facility provides a rich environment or teaching and learning contexts for both teachers and learners to present useful teaching and learning

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