

## Chapter 2

# A Specified Ubiquitous Learning Design for Seamless Learning

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### ABSTRACT

*Seamless learning and ubiquitous learning are nested concepts and they may be confused notions without elaborating definitions and implications. In this chapter, seamless learning is handled deeply, and ubiquitous computing and ubiquitous learning concepts are explained. Seamless learning is explained through the definition stated by Kuh and implications carried out by numerous researchers who conducted many studies in the field. Each implication and study are analyzed and elaborated carefully in order to propose an efficient seamless learning management system. In addition to those analyses, after explaining ubiquitous computing and ubiquitous learning concepts, MOOCs are mentioned in order to give a well applied ubiquitous learning system. Finally depending on seamless learning fundamentals (stated by authors) an efficient seamless learning management system is proposed.*

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## INTRODUCTION

Each learning approach and learning management system possess their own philosophical ground and accumulation of knowledge through a wide or specific chronological and practical channel. With this respect, ubiquitous learning, MOOCs or proposed Seamless Learning Management System (proposed in this chapter) are not distinguished from any other learning systems or approaches. This is the most basic idea why it is substantially significant to set a rigor starting point of the process before alluding to MOOCs, ubiquitous learning or Seamless Learning System (SLMS). At this point, seamless learning fundamentals can be accepted as the first milestone of SLMS empowered by ubiquitous computing or ubiquitous learning. In essence, it is inevitable to annotate seamless learning with philosophy, fundamentals, implementations and outcomes.

The term “seamless” was discoursed by American College Personnel Association (John C. Calhoun, 1996) in order to emphasize the value of in and out of class activities for the students’ enhancing their knowledge and academic success. In addition to this, the detailed definition of seamless learning is elucidated by Kuh (1996) as;

*The word seamless suggests that what was once believed to be separate, distinct parts (e.g., in-class and out-of-class, academic and non-academic; curricular and co-curricular, or on-campus and off-campus experiences) are now of one piece, bound together so as to appear whole or continuous. In seamless learning environments, students are encouraged to take advantage of learning resources that exist both inside and outside of the classroom... students are asked to use their life experiences to make meaning of material introduced in classes... (p.136)*

## BACKGROUND

### A Philosophical Perspective on Seamless Learning

As Michael W. Galbraith (2017) stated, any instructional and learning route should be prompted by a solid philosophical approach of education to facilitate placing headstones of instructional design and to draw outlines in order to make choices. As many, seamless learning has its philosophical foundations. By the projection of seamless learning, life itself is a significant learning environment. Learning occurs at any chronological and locational point of human’s life. Thence, the act of learning should be handled like any other vital activities like feeding, inhaling, sleeping etc. with one critical difference. Seamless learning does not mean that learners have to be educated in every second of their lives while they are available (Wong & Looi, 2011). The problem is, at this point, how to seize upon the valuable time interval at the right place with respect to learners’ readiness for gaining information and knowledge. Learners should benefit from learning environment “anytime” and “anywhere” they desire. The terms “anywhere” and “anytime” should not be shuffled with “everywhere” and “every time” (Wong & Looi, 2011). That is why learning environments should provide learners knowledge at “any” learnable moment. For instance a plant consumes water best when it most needs. In other words, the efficacy of learning

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