

## Chapter 69

# Developing Self-Regulation Skills in Virtual Worlds: An Educational Scenario Applied in Second Life

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### ABSTRACT

*In order to succeed in today's life and work environments, people require more than thinking skills and content knowledge. Initiative and self-direction skills are needed, including the ability to manage goals and time, to work independently, and be self-directed learners. On the other hand, e-learning has brought changes in every field of formal and informal education, such as training programs, basic education, and life-long learning. However, e-learning is not inherently motivating and can even be demotivating due to technological, intrapersonal, and interpersonal hurdles. A hallmark of e-learning is its reliance on learner autonomy, also called independent or self-directed learning. In view of the need for the design of e-learning environments that would provide self-regulation strategies for the maximization of learners' engagement to an e-learning course and the development self-regulation as an important life skill, this paper presents the application of a Self-Regulation Theory based educational scenario, using the Virtual World of Second Life to enhance situated experience in professional and career development and to develop self-regulation as an important skill for the 21<sup>st</sup> century, along with skills, such as collaboration, team work, peer exchange and problem solving.*

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## INTRODUCTION

E-learning has profoundly changed many aspects of our society in educational programs, in business, in economical fields etc. This new experience presents challenges since learners often have to handle the ambiguity of the new various learning environment, based on interactive technologies. These interactive technologies can play a significant role in engaging the learners with active roles, providing a rich learning environment. E-learning programs can cover different delivery methods of teaching, ranging from face-to-face courses to multi-user online courses (LMS, VLE, CoP, mLearning technologies, forums).

In such various environments, the learners usually have a different set of needs, attitudes and skills as to learning and training. Factors such as self-beliefs (self concept, computer/self-efficacy) and self-regulation seem to be important contributors to the learning process in enhancing human performance (Paraskeva, Mysirlaki, & Choustoulakis, 2009). However, these factors have received little attention in the design of e-learning environments. Moreover, the high dropout rate of e-learning is linked with low rates of self-motivation and self-direction in e-Learning (Martinez, 2003).

Therefore, we argue that e-learning environments should include tools and practices that would promote efficient procedures of learning and self-regulation strategies that would enable learners to manage their own learning in the workplace. In view of the need for designing e-learning environments that would enhance the development of self-regulation skills, we propose the use of Virtual worlds, such as Second Life, for supporting well-designed self-regulation scenarios and strategies.

This article presents an educational scenario that was used to design learning activities that aim to develop self-regulation skills, in the Virtual Learning Environment (VLE) of Second Life.

## THEORETICAL BACKGROUND

### 21<sup>st</sup> Century Skills

In order to describe the people who grew up with Information and Communication Technologies (ICT), authors used terms like “Next-generation”, which stems from the term “Net Generation” (Tapscott, 1998), “digital natives” (Prensky, 2001), “millennials” (Howe & Strauss, 2000). “Generation @” (Opaschowski, 1999), “Homo Zapiens” (Pelevin & Bromfield, 2002) and “Google Generation” (JISC, 2008). This new generation, use the latest technologies, such as social networks, online games and Virtual Worlds, spending thousands of hours analyzing new situations, interacting with characters they do not really know, and solving problems quickly and independently (Beck & Wade, 2004).

As Green and Hannon (2007, p. 10) state, “the use of digital technology has been completely normalized by this generation and it is now fully integrated in their daily life”. The intensive use of these environments and the growing possibilities and new ways of working with the World Wide Web and Web 2.0, require a different set of skills in order to cope with the complexity and the faster pace of life, than people in the old days did. These are known as “the skills for 21st century”, or “next generation skills” and they are all fundamental to the success of knowledge age. In view of this fact, Dede (2000) has identified three specific abilities that are of growing importance:

- The ability to collaborate with diverse teams of people to accomplish a task.
- The ability to create, share, and master knowledge by assessing and filtering quasi-accurate information.
- The ability to tolerate ambiguity; to be able to make rapid decisions based on incomplete information in order to resolve novel dilemmas and to have the “ability to learn from unforeseen situations and circumstances” (Canto-Sperber & Dupuy, 2001).

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