Chapter 12
Exploring the Role of
Web-Based Learning in
Global Education

Kijpokin Kasemsap
Suan Sunandha Rajabhat University, Thailand

ABSTRACT
This chapter aims to explore the role of web-based learning (WBL) in global education, thus describing
the theoretical and practical overview of WBL, the multifaceted applications of WBL tools in educational
settings, the application of web-based language learning, the application of web-based problem-solving
activities, and the significance of WBL in global education. The fulfillment of WBL is vital for schools
that seek to serve students and educators, improve educational performance, enhance competitiveness,
and reach continuous achievement in global education. Therefore, it is necessary for schools to explore
their WBL, establish a strategic plan to usually check their technological advancements, and immediately
respond to the WBL needs of students and educators. The chapter argues that applying WBL in global
education has the potential to increase organizational performance and reach educational goals in the
digital age.

INTRODUCTION
Due to the rapid development of information technology (IT), web-based learning (WBL) has become
a dominant trend (Chen & Huang, 2014). E-learning, also known as WBL, is referred to the delivery of
education through the use of the Internet to support the individual’s learning and organizational perfor-
mance goals (Clark & Mayer, 2011). Recent technological innovations and the development of WBL
platforms not only overcome the limitations of time and space, but also reduce the learning costs (Hu,
Lo, & Shih, 2014). Web 2.0 technologies are involved in the education system, resulting in the rapid
expansion of the WBL (Senyuva & Kaya, 2014). Web 2.0 technologies are broadly utilized in higher
education institutions to create the learning environments (Papastergiou, Pollatou, Theofylaktou, &
Exploring the Role of Web-Based Learning in Global Education

Karadimou, 2014). Most colleges have WBL systems to keep a large number of course resources during higher education process (Peng, Jiang, & Zhang, 2013).

Vernadakis et al. (2011) stated that online learning, also known as WBL, is the learning that takes place via a computer connected to the Internet. WBL has rapidly grown in recent years (Yuan & Kim, 2014). Schnetter et al. (2014) indicated that the growth in online programs for the advanced degrees is exponentially expanding. In online programs that offer the live class sessions, students meet face-to-face in the virtual classroom with their instructors (Smith, 2015). Web-based instruction has initiated new opportunities for the development of schools (Aslani, Haghani, Moshtaghi, & Zeinali, 2013). In the WBL environments, interactivity is recognized as the most important element for successful WBL (Violante & Vezzetti, 2015). WBL and distance learning are the widely used technology in today’s teaching environments (Dow, Li, Huang, & Hsuan, 2014).

The development of a myriad of new technologies for learning has enabled people to learn anywhere and anytime (Song & Lee, 2014). The influence of information and communications technology (ICT) has led to the widespread use of the Web 2.0 applications in education (Cerra, Gonzalez, Parra, Ortiz, & Penin, 2014). Web 2.0 technologies provide the collaborative learning platform without boundary of time and geography (Hao & Lee, 2015). The rapid advancement of network technologies not only changes the way in which people access the information, but also expedites the accumulation of knowledge resources (Hwang, Kuo, Chen, & Ho, 2014). The improvement of WBL emphasizes that the skill of self-directed learning is the key element of educational success in the WBL environments (Senyuva & Kaya, 2014).

The strength of this chapter is on the thorough literature consolidation of WBL. The extant literatures of WBL provide a contribution to practitioners and researchers by describing the multifaceted applications of WBL to appeal to the different segments of WBL in order to maximize the educational impact of WBL in global education.

BACKGROUND

Educational technology involves several domains, including learning theory, computer-based training, WBL, and mobile learning. Educational technology includes numerous types of media toward delivering text, audio, images, animation, and video. Educational technology involves technology applications and processes, such as video tape, satellite TV, CD-ROM, and computer-based learning, as well as WBL. The application of theories of human behavior to educational technology derives input from instructional theory, learning theory, educational psychology, media psychology, and human performance technology.

By the mid-1980s, accessing course content became possible at many college libraries. In computer-based learning, the learning interaction was between student and computer drills or micro-world simulations. Digitized communication and networking in education started in the mid-1980s. Educational institutions began to take advantage of the new medium by offering distance learning courses utilizing computer networking for information. Early WBL systems, based on computer-based learning, often replicated the autocratic teaching styles.

With the advent of the World Wide Web in the 1990s, teachers embarked on the method using the emerging technologies to employ the multi-object oriented sites, which are the text-based online virtual reality systems, to create the course websites along with the simple sets of instructions for students. The Internet and other digital technologies have become integrated in the college students’ lives (Chen, Lambert, & Guidry, 2010). The widespread adaptation of online courses has caused many researchers
Related Content

CAT-MD: Computerized Adaptive Testing on Mobile Devices
www.irma-international.org/article/cat-computerized-adaptive-testing-mobile/2996

Conditions and Key Success Factors for the Management of Communities of Practice
Edurne Loyarte and Olga Rivera (2010). Web-Based Learning Solutions for Communities of Practice: Developing Virtual Environments for Social and Pedagogical Advancement (pp. 306-329).
www.irma-international.org/chapter/conditions-key-success-factors-management/36370

Evaluating an Online Programming Instructional Process Organized Through Elaboration Theory
www.irma-international.org/article/evaluating-an-online-programming-instructional-process-organized-through-elaboration-theory/210181

Enhancing Instructor Capacity Through the Redesign of Online Practicum Course Environments Using Universal Design for Learning
www.irma-international.org/chapter/enhancing-instructor-capacity-through-the-redesign-of-online-practicum-course-environments-using-universal-design-for-learning/312732

The Reality of Virtual Reality: Second Life as a Tool for Online Peer-Teaching Activities
www.irma-international.org/chapter/reality-virtual-reality/76738