Chapter III

From WebQuests to Virtual Learning:
A Study on Students’ Perception of Factors Affecting Design and Development of Online Learning

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Abstract

WebQuest as an Internet-based instructional model has recently been widely adopted in K-16 education. However, its underlying principles and functionality are not well understood, which has resulted in an inconsistency in practice. This chapter investigates the factors that are critical to the design and development of WebQuests from the perspective of students. The four constructs of constructivist problem-solving, social interaction, motivation, and scaffolding were identified as factors critical to WebQuest learning. The identified factors were further studied in a larger context with a focus on virtual teams and virtual learning. Suggestions were made on how to improve the existing practice in virtual team design in light of the factors identified in WebQuest learning.
Introduction

The introduction of the Internet into the educational arena has rapidly changed the way individuals learn and paved the way to widespread collaborative and cooperative learning that was not perceived possible until recent years (Dabbagh & Bannan-Ritland, 2005). Although the Internet has been used by teachers as one of the venues for teaching and learning, it can oftentimes cause confusion and become disorienting for learners. Foshay and Bergeron (2000) pointed out that putting content on a Web page is not a guarantee of learning. There is a big difference between information and instruction. They argued that while the Web may be a great way to distribute information, it does not necessarily follow that one can teach with it. Hopper (2001) expressed concern over the “unchecked zeal” for Internet-based teaching and raised the question of whether distance learners are learning or just distant. The argument hits home the critical issue in online learning; that is, the quality of Internet-based teaching and the benefits that virtual learning can offer its learners as does any type of learning such as face-to-face learning.

WebQuest as an Internet-based instructional model has, in recent years, been widely adopted in K-16 classrooms as an effective way to organize chaotic Internet resources (Patterson & Pipkin, 2001). It has been used across the curricula to improve students’ mastery of subject matter, problem solving skills, and skills in collaborative and cooperative learning. Despite its rising popularity, the WebQuest is not well-understood in terms of its functionality and underlying principles. Vidoni and Maddux (2002) noted that WebQuests were sometimes used as “a panacea for all manner of educational ills” (p. 113). Dodge (2001) was concerned with the misuse of WebQuests that “are merely worksheets with URLs” (p. 7). The issues in WebQuest learning and implementation necessitate that more research is needed to study the role of WebQuests and its application in learning, particularly in virtual learning.

This chapter is organized as follows. First, it investigates what and how students think about WebQuests by identifying factors critical to WebQuest learning. Second, it explores ways that the factors identified can be applied to the design of virtual learning and virtual teams.