The Role Of Learners’ Academic Background On E-Learning: An Empirical Study On The Use Of Discussion Forum

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ABSTRACT

Nowadays, instructional technologies are the enabler for educators to have more choices in course planning, course design, and lecturing. These technologies not only strengthen the communication between instructors and learners, but also let the learners get an easily access their course materials at anytime and from anywhere. As a result, many educational institutes, including formal universities and online educational service providers, are now using E-learning technologies to deliver their courses as pure online courses or hybrid courses. In this research, the effectiveness of using online discussion forum in teaching is evaluated based on five teaching criteria related to knowledge construction process: learner’s motivation, learner’s independence, learner-learner interaction, learner-instructor interaction, and learner’s satisfaction. The author’s findings indicated that IT majors are more positive towards the use of online discussion forum in E-learning.

Keywords: Electronic Learning (E-learning), Knowledge Construction Process, Online Discussion Forum, Perceived Learner’s Independence, Perceived Learner-Instructor Interaction, Perceived Learner-Learner Interaction, Perceived Learner’s Motivation, Perceived Learner’s Satisfaction

INTRODUCTION

When personal computers were launched in the 1970s, the use of information technology (IT) equipment was limited to the handling of business transaction and data storage. Nowadays, with the help of the Internet and coupled with the affordable price of personal computers, tablet computers and other handheld devices, people can perform Web surfing and information searching using a broadband Internet connection through wireless services provided by Wireless Fidelity (WiFi) and the third (3G) and the fourth generations (4G) cell phone networks. Now, the Internet becomes a technology enabler for “anytime-anywhere business”, as well as for “anytime-anywhere learning” (Boisvert, 2000). At the same time, educational institutions are shifting their ways of delivering services from merely factual and procedural...
knowledge dissemination in the classrooms to online teaching through electronic learning (E-learning) systems such as Moodle (https://moodle.org/), which can facilitate students to learn at their own pace in the Internet. Plus, the rapid expansion of electronic publishing, which encourages the development of institutions focused on providing E-learning via the Web (Alavi, 1994; Alavi et al., 1995; Leidner & Jarvenpaa, 1995), catalyzes this paradigm shift in the teaching methods. To echo to this new paradigm, textbook publishers, such as Pearson Education (http://www.pearsonstudents.com/home.html) and Cengage (http://www.cengage.com/us/), have developed various kinds of Web-based teaching tools. At the same time, non-profit organizations, such as Coursera (https://www.coursera.org/), have entered into the education service market for delivering free online courses for learners all over the world. Obviously, the success of these teaching Web sites and services rely on the blending of the use of Web technology, multimedia tools, and communication applications and tools, such as online forums, for facilitating communications between their stakeholders, i.e., learners and instructors.

Examples of E-learning can be widely found nowadays. In the past two decades, there are many virtual educational institutions formed, which integrate the E-learning technologies in education (Whittington, 2000) and offer pure online courses for learners. Many traditional universities also make use of these E-learning technologies to offer hybrid courses (i.e., courses with both face-to-face and online components) or pure online classes in parallel with their regular face-to-face classes. These arrangements provide learners with the opportunity to continue their education on the Web environment, with an option for not attending face-to-face classes. Information systems (IS) researchers (Alavi, 1994; Alavi et al., 1995; Condie & Livingston, 2007; Leidner & Jarvenpaa, 1995) predict these new teaching methods will gradually replace the traditional methods which heavily rely on face-to-face interactions. As E-learning is gaining its popularity, educators and researchers are eager to know whether this learning method is an effective one compared with the traditional one. In particular, they want to know if E-learning can enhance the knowledge construction process in learning (Johnson, 2007; Koohang et al., 2013; Narimisaei et al., 2012; Oliver, 2001; Tavangarian et al., 2004). Knowledge construction process is an educational process related to “the extent to which teachers help students to understand, investigate, and determine how the implicit cultural assumptions, frames of references, perspectives, and biases within a discipline influence the way in which knowledge is constructed within it” (Banks, 2002). In this research, we plan to investigate how learners react with online discussion forum, which is the key function of E-learning, in some of the key issues related to the knowledge construction process. We would also like to explore the impact of the learners’ academic background on their reaction to online discussion forums. As prior research suggests that learners from different academic disciplines have exposed to different types of E-learning strategies (Gunasekaran et al., 2002), we expect that learners with different academic background will interact with online discussion forum differently.

This article is organized as follows. In the next section, we will present a brief literature review on E-learning and knowledge construction process, and then we will develop our hypotheses. Afterwards, we will present our research methodology and data analysis. Then,
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