The Effect of Online Participation in Online Learning Course for Studying Trust in Information and Communication Technologies

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ABSTRACT

Among online learning factors mentioned in the education literature, it is argued that online participation is the strongest factor which contributes to online learning effectiveness. Drawing from the theory of online learning as online participation, an online learning experiment was conducted in a well-known public University in southern Taiwan. There were seventy-five International MBA students participated in the study. The online learning course contents were specifically designed for studying trust in Information Communication Technologies (ICTs). Furthermore, the online learning course was designed by incorporating active case-based learning to increase students’ trust in ICTs. The experiment results showed that high online participation treatments could significantly increase online learning effectiveness, measured by grades, perceived skill development, and the level of students’ trust in ICTs. Discussion and limitation of this study are discussed in the paper.

KEYWORDS

Computer-Mediated Communication, Improving Classroom Teaching, Interactive Learning Environments, Pedagogical Issues, Teaching/Learning Strategies

INTRODUCTION

Online learning courses have been introduced and offered in many universities around the world as people tend to anticipate and appreciate its advantages (Chang & Tung, 2008). Evidently, the online learning enrollment growth rate is about six times the traditional classroom based learning system, and has continued to grow globally as the instructional method in the future (Nevgi, Virtanen, & Niemi, 2006; Shea & Bidjerano, 2009). The introduction of numerous information communication technologies (ICTs) have enabled the unique learning relationships, thus paving new ways for teaching and learning (Bruckman, 2002).

Previous studies on online learning are commonly associated with the number of factors that can contribute towards learning effectiveness (Cobb, 2009; Fredericksen, Picket, Shea, Pelz, & Swan, 2000; Gunawardena & Zittle, 1997; Monahan, McArdle, & Bertolotto, 2008). However, there are three dominant factors that are extracted from the social constructivist learning theory, and are highly

DOI: 10.4018/IJCBPL.2016070106

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mentioned in the education literature. These factors are online participation (Hrastinski, 2009), social presence (Cobb, 2009; Remesal & Colomina, 2013), and collaboration (Murphy, 2004; Oliver & Omari, 2001). Amongst these factors, the online participation is argued to be the most influential factor in comparison to social presence and collaboration (Hrastinski, 2009).

To examine online participation in great depth, the theory of online learning (Hrastinski, 2009) was employed to undertake the fundamental factor in enhancing online learning effectiveness. This theory has been proposed recently, yet very little relevant literature exists, particularly to validate the theory with empirical evidences. In other words, there is still very little work on how to operationalize the essence of the theory into the online instructional design.

Furthermore, to empirically validate the theory of online learning, this study has conducted a controlled experiment in a form of online learning course. In this case, this study used three online learning courses that were offered at the Institute of International Management and Business Administration (IIMBA) – National Cheng Kung University, Taiwan. The IIMBA students were required to take these online learning courses as part of the requirement, pertaining to their overall grades evaluation. Indeed, the goal of the online learning courses is to enhance students’ trust in ICTs based on the particular topics given in the instrumental materials.

This study aims to answer the following research question. Does online participation enhance online learning effectiveness? To answer this question, the study aims to empirically investigate the conceptualization of the theory of online learning in the context of online participation in regard to increase online learning effectiveness. Moreover, this study contributes toward the extension of the empirical research on the proposed online learning participation theory. This study also contributes to conceptualizing the theory into practical operationalization of the online course design and concrete implementation with respect to the online learning course when studying trust in ICTs.

This paper proceeds as follows. The first section briefly reviews the relevant literature. The next section explains the online course design, followed by the methods and hypotheses development. The next section that follows shows the results. Finally, the last section is about the discussions and conclusion.

**LITERATURE REVIEW**

**Online Learning, Technology, and Pedagogy**

Online learning is an innovative approach for delivering instruction to a remote audience, particularly using the web and Internet as medium (Khan, 1997). Compared to the traditional face-to-face classroom, online learning is able to enhance personalized learning experience without time and location constraints (Zhang, 2004). Still, there are mounting challenges arise from the rapid online learning growth and evolution for educators in relation to the technological and pedagogy (Shea & Bidjerano, 2009).

With the availability of technology, online learning can utilize through a specific course management system (CMS), such as Moodle, WebCT, or Blackboard systems. CMS is indeed offering a variety of media richness to support the interaction in both asynchronous and synchronous (Alexander & Golja, 2007; Sheperd & WM Benjamin Martz, 2006; Vician & Brown, 2001). According to Sulcic and Lesjak (2009), Moodle is considered the most popular CMS among the educational institutions.

While considering the pedagogy, research on online learning has been inspired by the social perspective in learning (Hrastinski, 2009). The social perspective emphasizes on the creation of knowledge in web-based learning environment and act as the important forums, especially for joint problem solving, knowledge building, and sharing of ideas (Nevgi et al., 2006). However, the online learning challenges may occur on how to put the social constructs theory into practice. Tsai (2010) argues that there is a huge gap between theoretical ideal and the practical realization of supporting collaborative learning and interaction approach in online learning.
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