How to Involve Students in an Online Course: A Redesigned Online Pedagogy of Collaborative Learning and Self-Regulated Learning

Chia-Wen Tsai, Department of Information Management, Ming Chuan University, Taiwan

ABSTRACT

In an online course, students learn independently in the virtual environment without teacher’s on-the-spot support. However, many students are addicted to the Internet which is filled with a plethora of shopping websites, online games, and social networks (e.g. Facebook). To help keep students focused on and involved in online or blended courses requires teachers’ exquisite design of their online teaching methods and learning activities. Thus, the author in this study redesigned his online pedagogy, collaborative learning (CL) with initiation and self-regulated learning (SRL) with feedback, based on the teaching results from previous semesters and his own self-reflection. This study involved an experiment that included 227 sophomores from four class sections. The results of this study indicate that students from CIS group (who received online CL with initiation and SRL) had the highest involvement. The implications for educators that plan to deliver online learning were also provided in this study.

Keywords: Feedback, Higher Education, Initiation, Involvement, Online Collaborative Learning, Online Self-Regulated Learning

1. INTRODUCTION

It is indicated that involvement is regarded as a powerful means of improving almost all aspects of the undergraduate students’ cognitive and affective development (Astin, 1999; Shen, Lee, Tsai, & Ting, 2008), particularly in online learning environments (Tsai & Shen, 2009). Online learning differs from didactic presentation, where the student has few opportunities to deviate from the teacher’s presentation of the material (Greene & Azevedo, 2007). In an online course, students learn independently without teacher’s on-the-spot monitoring (Tsai & Shen, 2009). However, students retreating to the isolation of their computers may avoid school activities and course involvement, and instead be content with self-gratifying Internet entertainment (Treuer & Belote, 1997). Until now, little attention has been paid to a rather practical and yet critical aspect of teaching methods in the online learning environment: how to help students be involved positively in online courses and improve their learning (Tsai & Shen, 2009). To investigate the specific needs for practical teaching methods, the
author conducted a series of quasi-experiments in a blended computing course titled ‘Applied Information Technology: Networking’ applying redesigned online pedagogy to improve students’ involvement in this course.

More and more institutions of higher education provide online courses; however, there are few studies that have discussed effective design of online teaching methods for teachers and students (Shen, Lee, & Tsai, 2007). Researchers commonly argue that a key challenge for online learning is to encourage learner participation (Hrastinski, 2008). In this study, the author conducted an experiment and adopted and redesigned two innovative teaching methods to help students be involved in an online course.

Online learning environments require more maturity and self-discipline from students than in the traditional classroom (Zhang, Zhao, Zhou, & Nunamaker, 2004). E-learning itself enables students to learn in a self-regulated manner and is considered to be a way to assist learners individually (Krause, Stark, & Mandl, 2009). Nevertheless, it is found that many students spent much time in browsing social networks (e.g. Facebook) and shopping websites, chatting via online messengers, and playing online games. How to improve students’ regulated participation and help them achieve better learning effects may challenge many teachers who are preparing to implement e-learning for students (Lee, Shen, & Tsai, 2010). Thus, the author adopted self-regulated learning (SRL) to develop students’ regular learning habits and participation in the online course.

SRL is defined as the efforts put forth by students to control and monitor their motivation, concentration, and affective aspect to protect their goals (Corno, 2001). Based on teaching experience of more than ten years in computing education, before the implementation of SRL, it has been observed that students in Taiwan are accustomed to accept and follow their teachers’ arrangements for their learning. They usually lack the ability to manage their time effectively and regulate their learning independently, and need more teacher support in the online learning environments (Tsai, 2010a). It is revealed that teachers’ feedback could help students take control of their learning and become self-regulated learners (Nicol & Macfarlane-Dick, 2006). In order to help students adopt SRL and develop regular learning habits in an effective manner, the author thus integrated feedback into the implementation of SRL in an online course.

Many university teachers exert themselves to help students develop professional knowledge and skills since it is reported that the graduates are expected to possess workplace skills, including collaborative problem-solving skills (American Association of Two-Year Colleges, 2006). However, the teaching in Taiwan tends to adopt traditional lectures with inappropriate examples, particularly in computing courses. Many lack-of-context or disjointed examples are used in different sections or chapters (Lee, Shen, & Tsai, 2008a). Students who learn in this context may lose their learning motivation and not be much involved in the course (Shen, Lee, Tsai, & Ting, 2008). Thus, it is very critical for teachers of computing courses to adopt innovative teaching methods to involve students in the course, and develop students’ collaborative problem-solving skills.

It is indicated that teachers should develop collaborative learning (CL) environments to support students’ communication, coordination, and the development of their collaborative skills (Joiner, 2004). CL refers to teaching a specific educational objective through a coordinated and shared activity by means of social interactions among the group members (Dillenbourg, 1999; Zurita & Nussbaum, 2004), thus was considered as an effective approach in this study. In a CL context, collaboration promotes learning, increases motivation, promotes feelings of belonging to a team, encourages creativity, eases communication and increases achieved personal satisfaction for the educative process (Plantamura, Roselli, & Rossano, 2004). CL could contribute to deeper level learning, critical thinking, shared understanding, and long-term retention of the learned material (e.g. Garrison, Anderson, & Archer, 2001; Johnson & Johnson, 1999). Meanwhile, in our previous implementation of CL, it was found that some students give up their learning when they face problems and can not climb their learning curve.
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