Chapter 5.12

Students' Attitudes toward Process and Product Oriented Online Collaborative Learning

Xinchun Wang
California State University, Fresno, USA

ABSTRACT

Although the pedagogical advantages of online interactive learning are well known, much needs to be done in instructional design of applicable collaborative learning tasks that motivate sustained student participation and interaction. In a previous study based on a Web-based course offered in 2004, Wang (2007) investigated the factors that promote sustained online collaboration for knowledge building. By providing new data from the same Web-based course offered in 2006 and 2007, this study investigates students' attitudes toward process- and product-oriented online collaborative learning. The analysis of 93 post course survey questionnaire data show that the overwhelming majority of students have positive experience with online collaborative learning. Data also suggest that students are more enthusiastic about process-oriented tasks and their attitudes toward product-oriented collaborative learning tasks are mixed.

INTRODUCTION

The pedagogical advantages of student interaction in collaborative construction of knowledge are grounded in the social constructivist perspective of learning. From the social constructivist perspective, all learning is inherently social in nature. Knowledge is discovered and constructed through negotiation, or collective sense making (Duin & Hansen, 1994; Kern, 1995; Wang & Teles, 1998; Wu, 2003). Pedagogically sound tasks in an online learning environment should, therefore, reflect social learning and facilitate interactive learning and collaborative construction of knowledge.

Interactive Learning and Factors Influence Online Collaboration

From a student's perspective, online interaction in learning takes place at two different levels: interaction with the contents, including interactive computer software and multimedia system, and interaction with instructors and between peers (Evans & Gibbons, 2007; Gao & Lehman, 2003). There is evidence that pedagogically well-designed interactive learning tasks actually increase rather than decrease student access to instructors; increase interactions between instructors and among students; and increase students involvement of course content as well (Lavooy & Newlin, 2003; Mouza, Kaplan, & Espinet; 2000; Wu, 2003). Interactive learning tasks also promote greater equality of participation (Mouza, Kaplan, & Espinet, 2000), more extensive opinion giving and exchanges (Summer & Hostetler, 2002), empower shy students to participate, and promote more student-centered learning (Kern, 1995; Wang & Teles, 1998)

At the level of interaction with content, students benefit more from producing explanations than receiving explanations. Such proactive learning engages students in a higher level of thinking than the reactive type of learning (Gao & Lehman, 2003; Wu, 2003). Additionally, students who reported high levels of collaborative learning in an online course tend to be highly satisfied with their learning and they also tend to perceive high levels of social presence in the course (So & Brush, 2007).

Despite these advantages, research also indicates that online interactive learning and collaboration are not always sustainable and students' participation in Computer Mediated Communication (CMC) tasks may wane after the assessed tasks that require the postings are completed (Macdonald, 2003). In a survey on college student's attitudes toward participation in electronic discussions, Williams & Pury (2002, p.1) found that "contrary to much literature on electronic collaboration suggesting students

enjoy online collaboration, our students did not enjoy online discussion regardless of whether the discussion was optional or mandatory." Like any other form of learning, learning collaboratively in an online course is also characterized by individual differences. Collaboration as a process of participating to the knowledge communities is not an equal process to all the members of the community (Leinonen, Järvelä, & Lipponen, 2003). Much needs to be done to explore factors that promote sustained student interest in online interactive learning and collaboration.

One challenge for developing sustainable online collaborative learning tasks lies in the nature of the CMC system itself. Although CMC supports interaction and collaborative learning, it also has inherent shortcomings. Disadvantages include the time it takes to exchange messages and the increased difficulties in expressing ideas clearly in a context reduced learning environment and the difficulty in coordinating and clarifying ideas (Sumner & Hostetler, 2002). The increased time it takes to reach consensus and decisions (Kuhl, 2002; Sumner & Hostetler, 2002) and to produce a final product (Macdonald, 2003). Given all these difficulties students need to overcome in order to collaborate effectively in interactive learning environment, online instructors need to address these obstacles with careful instructional design and provide support for collaborative learning with appropriate interactive learning tasks.

Research has also shown that computer mediated communicative tasks require more active role of students than traditional instruction in the face-to-face environment does (Wang & Teles, 1998). Students need to be willing to send a formal written question rather than have a casual conversation with peers or with the instructor in order to have their questions answered (Kuhl, 2002). To communicate effectively with peers and the instructor, students need to create the context through written messages, which requires the writing skills to identify their problems and express them precisely in order to have the ques-

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/students-attitudes-toward-process-product/51885

Related Content

The Pervasiveness of Design Drawing in ID
S. Todd Stubbsand Andrew S. Gibbons (2011). *Instructional Design: Concepts, Methodologies, Tools and Applications (pp. 1921-1941).*
www.irma-international.org/chapter/pervasiveness-design-drawing/51921

Using Concept Maps With Errors to Identify Misconceptions: The Role of Instructional Design to Create Large-Scale On-Line Solutions
Paulo Rogério Miranda Correia, Joana Aguiarand Brian Moon (2020). *Pedagogy for Conceptual Thinking and Meaning Equivalence: Emerging Research and Opportunities (pp. 117-134).*
www.irma-international.org/chapter/using-concept-maps-with-errors-to-identify-misconceptions/238817

Evaluation of a Hybrid Mathematics Methods Course for Novice Teachers
Christopher J. Johnston (2013). *International Journal of Online Pedagogy and Course Design (pp. 33-52).*
www.irma-international.org/article/evaluation-hybrid-mathematics-methods-course/75540

Effects of Maker Education Integrating ARCS on Learners' Performance, Motivation, Self-Efficacy
Jan-Pan Hwangand Mei-Yao Chang (2022). *International Journal of Online Pedagogy and Course Design (pp. 1-9).*
www.irma-international.org/article/effects-of-maker-education-integrating-arcs-on-learners-performance-motivation-self-efficacy/304086

The Post-COVID-19 Impact on Distance Learning for New Zealand Teachers
David Parsons, Tim Gander, Karen Bakerand Darcy Vo (2022). *International Journal of Online Pedagogy and Course Design (pp. 1-16).*
www.irma-international.org/article/post-covid-impact-distance-learning/295955