

Chapter 8

Peer Assistance and Interaction in an Online Forum

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ABSTRACT

This study examines peer interaction and peer assistance observed in on an online forum, part of a graduate level instructional design course during the 2008 spring academic term. It incorporates both content analysis and social network analysis techniques. The content analysis results showed that the four types of peer assistance adopted from an existing framework were adequate to categorize the peer assistance that the students received during the study. Students tended to receive more Reflective assistance from their peers if their reading reflections provided high relevance to the course projects. Social network analysis results revealed that while 70% of the students provided peer assistance to one another, they were less likely to go beyond the course requirement of posting toward to end of the semester. Also, a further analysis demonstrated how SNA approach may help examine the influences of actor attributes on their observed communication.

INTRODUCTION

Collaboration allows learners to share knowledge with one another in an effort to enhance their own knowledge base. By providing knowledge that benefits others' learning and acquiring information from those who have more knowledge, learners are able to acquire skills and experiences that may not be achieved easily otherwise through their individual efforts. Online asynchronous forums

have been popular in educational settings as they provide students with the opportunities to collaborate on an "anytime and in anyplace" basis. Students are believed to provide better reflection and responses in such settings as they have the extended time to read one another's messages and provide a more articulated responses (Dede, 2004; Leach, 2002).

Despite the potentials, there are issues with the use of online forums. Research studies observed participation level in asynchronous forums to be low (Hewitt, 2005; Romiszowski & Mason, 2004;

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Winiecki, 2003) and the information exchange in the posted messages not to be necessarily elaborate and thoroughly detailed (Gunawardena, Lowe, & Anderson, 1997). Existing research also indicates that assisting participants' dialogue is one of the major factors that affect their participation level and message content. Prompting issues (Carboni, 1999), encouraging response (Caggiano, Audet, & Abegg, 1995; Kale, Brush, & Saye, in press), providing structured guidance and clarification on expectations (Dennen, 2005; Yang & Liu, 2004) lead to high participation level and more reflective message content. Most research efforts, however, focused on instructors' role, ignoring possible peer assistance and peer interaction that may also account for students' observed online participation (Hew & Cheung, 2008).

The current study attempts to address this gap by applying necessary theoretical and methodological perspectives, namely content analysis and social network analysis approaches in examining asynchronous communication of students in an online forum. The forum focused in the current study was part of a graduate level instructional design course in a Mid-Atlantic university in 2008. The course provided students with experiences to employ prototyping concepts for developing computer-based instructional products. Students used the online forum to post their reflections on readings and to discuss their course projects. The study analyzed students' postings to examine the observed peer assistance and the patterns of peer interaction.

THEORETICAL FRAMEWORK

Peer Assistance

According to the cognitive apprenticeship, learners observe the "performance" of others and start to perform with gradually decreased assistance from more capable others (Collins, Brown, & Holum, 1991). In this view, the more "capable of others"

are not only instructors but also students who possess the necessary knowledge to be able to assist other students who lack the knowledge. In online forums, the messages exchanged between students may be in the form of assistance such as feedback, suggestions, or encouragement. Students' participation level may be different if they receive such assistance and information exchange from their peers as opposed to from their instructors (Poole, 2000), who may actually dominate the discussion. As Mazzolini and Maddison (2003) found, frequent postings from instructors can lead to shorter discussions. Students may tend to rely on instructors' expertise and thus may feel hesitant to contribute to the discussion if it reflects too much instructors' point of view.

Even though information exchange among students may be important to their online participation, research examining various types of assistance they provide to and receive from each other is limited. Majority of research focusing on assisting online dialogues examines strategies employed by instructors (Hew & Cheung, 2008) and various types of assistance that peers provide to each other in online settings have not been clearly defined. Thus, the first research question in the current study is:

RQ1. What types of peer assistance did students receive from each other in an online forum?

A Model for Examining Peers Assistance

Hew and Cheung (2008) identified various peer facilitation techniques based on a group of student teachers' participation in an online forum. The students in their study were observed to facilitate each others' dialogues through these strategies, namely introduction, engagement, and monitoring. Although these techniques may be useful, employing them as an initial framework in the current study may be problematic. First, the data came from a structured online discussion of a graduate

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