Online but off-topic:
Establishing common ground in small learning groups

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Abstract:

There is not yet a great deal of research in formal online learning environments focusing on the "off task" conversations that small groups engage in. This study explores how participants establish common ground in distance learning environments. The e-mail, discussion forum, and chat transcripts of ten small online groups were investigated using computer-mediated discourse analysis. Participants established common ground by focusing mostly on logistics, followed by social and then technical moves. The types of functional moves exchanged revealed that groups were actively engaged with each other to establish common ground, balancing individual focus with a group focus.

Introduction

Computer-mediated communication (CMC) tools are frequently used in educational environments to support collaboration between learners. In fully distance courses they are the primary, if not sole, means by which students talk and work together. While collaboration is desirable for many reasons in educational contexts, research in the area of online discussions has tended to focus on how deep and substantial the conversations are from the standpoint of the instructor or researcher, with an emphasis on cognitive over other types of engagement (Gilbert & Dabbagh, 2005; Wallace, 2003; Zhu, 2006). A sense of disappointment permeates the literature in this area, questioning whether online discussions are really relevant to meaningful learning. In any collaborative effort, however, trust and shared understandings must be in place. Part of establishing trust includes creating group norms and effective ways of being. Establishing common ground is one framework for understanding this process. Grounding requires effort, and less attention has been paid to how groups collaborate on this part of their online experience (Baker, Hansen, Joiner & Traum, 1999).

There is not yet a great deal of research in formal online learning environments focusing on the seemingly "off task" conversations that small groups engage in as they complete learning tasks together. Most studies have focused on the "on-task" elements of the conversation from a cognitive engagement, deep learning perspective (Zhu, 2006). Cognitive presence frameworks have analyzed the quality of the conversations, but the social presence elements have been explored less thoroughly. Knowing that common ground must first be established for groups to effectively collaborate, how groups do this when separated by time and space is of great interest. This study addresses the following questions:

1. What are participants talking about when not discussing the concepts to be learned?
2. How are participants establishing common ground when completing tasks at a distance?

Method

The study took place during a twelve-week graduate level education course at a large midwestern American university. The course was taught entirely at a distance. During two week units students were assigned to small groups to complete learning tasks which were designed according to recommendations by Hathorn and Ingram (2002a). Groups could use e-mail, asynchronous discussion forums or synchronous chat. All tasks required the group to create and submit a final document to the instructor. Each student also wrote a reflection about the learning experience. Sixteen of the twenty-one students enrolled in the course consented to participate in the study; thus a total of ten groups were analyzed.Chat and forum transcripts were automatically archived by the course management system and downloaded into word processing and spreadsheet files for analysis after the course had ended. All e-mail correspondence was sent to the researchers at the end of the course. Individual reflection papers were also downloaded at the end of the course for analysis. A computer-mediated discourse analysis approach was taken to investigate the research question (Herring, 2004; Paulus, 2004). First, messages were unitized into *functional moves*, similar to speech acts or what Henri and Rigault (1996) define as a speech segment: "the smallest unit of delivery, linked to a single theme, directed at the same interlocutor, identified by a single type, having a single function" (p. 62). Functional moves were then coded as conceptual (related to the course objectives), logistics (related to completion of the task), technical (related to the communication tools being used), or social (e.g. small talk) issues. The moves which were not conceptual were analyzed further for the purposes of this study as "off-task" components

of establishing common ground. Two researchers, neither of whom were instructors for the course, coded the functional moves. Transcripts from one group (representing 20% of the entire data set) was used to establish inter-rater reliability, with the goal of reaching 80% agreement (Bauer, 2000). Inter-rater reliability of 83% was reached.

Findings

A total of 1,563 non-conceptual functional moves were exchanged by the ten groups. Logistic (1,003 moves) accounted for 64% of the total non-conceptual moves. Social moves (441 moves) were 28% and technology-related moves (119 moves) were 8%. The subcategories of the three main types of moves (technical, social and logistics) reveal that groups were actively engaged with each other to establish common ground through eliciting and providing responses and feedback to each other. They also balanced an individual focus with a group focus. These subcategories are described next.

Technical moves concerned the functionality and use of the communication tools, such as reporting slow server connections or use of the "track changes" feature of Microsoft Word. The groups reached common ground in terms of the technology with the following functional moves: managing use of the tools (61%), supporting each other's attempts to use the technology (23%) and expressing emotions (17%).

The most common functional moves related to technology use were those managing the use of the tools (61%). For example, Trish and Trevor discussed the chat feature of Courseline:

Trish: This is my first chat session using Courseline.

Trevor: This is my second chat in courseline. Although I generally don't like it as well as [the previously used tool], this isn't as bad?

Trish: Not as bad...but there are somethings [sic] missing on courseline that [the previously used tool] has...

Michael in Group Orange asked his group: "Should we create a posting for each question, then we could each post or reply within the question's sub-file?" This reveals a concern with effective use of how best to use the communication tools, and use of questioning to bring all members into the conversation.

There were three broad categories of social functional moves: demonstrating politeness (49%), group cohesion (38%) and socialize/play (13%). Polite behaviors were the most frequent type of social move, accounting for 49% of all social moves. Closing moves, included at the end of messages, were coded as politeness rather than group cohesion, however, elements of group cohesion were often evident in closing moves, as evidenced by these excerpts from Group Tangerine members as they began their work together:

Arthur: I'm looking forward to this assignment!

Libby: I look forward to working with you all and getting to know you more.

Ron: I look forward to a smooth and enjoyable unit.

Lola: . . . looking forward to start our team project.

Logistic moves were the most common and fell into six broad categories: take action (31%), report/manage the task (19%), initiate (17%), provide response (16%), elicit response (13%) and direct others to act (4%). These categories reveal that the participants were highly engaged in establishing common ground about how to accomplish their goals.

The take action category had 31% of the functional moves in the logistics category. By stating their intended action, group members communicated what their individual contributions to the group task would be. Group members stated their availability for working on the task. For example, as this was a summer course several of the group members had vacations, family visits, holiday plans and other obligations to fulfill. This is illustrated in Gregory's post in Group Grape:

Just wanted to let you know that I'm running a little behind, but I should get the readings done by Saturday. Next week is pretty open for me. I went home to San Antonio for a visit last week, and that cost me some study time. Food was great, though :)

As far as chat times (if we decide we need them), I'm home by 4 PM each day, and off all day Thurs-Sat of next week. I generally go to bed at 10 PM (early riser), but anytime before that is fine.

Groups tended to state rather than offer to act, emphasizing quick, efficient decisions and actions, as seen in these posts by Michael in Group Plum:

7/13/2002 11:10:38 AM
I have the document. I will post when I finish. I am not sure how long it will take.
7/13/2002 2:17:05 PM
This is taking some time. It is 2:27. I will keep it about another hour and then post it. I will let someone else work on it for awhile. I plan on picking it up again later this evening.

The three broad categories of initiate, provide response and elicit response illustrate the process of exchanging ideas and information among the group members. Through initiating moves, group members expressed their opinions, made suggestions or further explained their points of view, particularly about how to approach the task. These functional moves went hand in hand with eliciting and providing feedback from other group members, showing an awareness that they were indeed operating as members of a team rather than taking it on individually. We see this type of exchange during Group Plum's chat.

Tonya: How about this? I'll post my lesson plan. I'll read through everybody's colloquium summaries and try to put them into the right boxes and you guys add the ML/Schema stuff?
Tonya: Sound like a plan?
Trish: sounds like a GREAT plan!
Michael: OKay [sic]

Discussion

Even when the groups were not talking about the course content, they were explicitly collaborating together to establish a common ground for the task at hand. They negotiated the logistics of completing the task. They engaged in social interaction and focused somewhat, but not much, on dealing with the technology. While Kirschner et al. (2004) identify that different CMC modes have different technological, social and educational affordances, the groups in this study did not differ much in how they used the various tools to perform communicative tasks. In all of the discourse, participants were interactively negotiating with each other to establish immediacy and iteratively moving between a focus on the individual and a focus on the group.

Early studies examining how groups work together identified similar functional moves as those in this study, but they were not yet theoretically grounded. For example, Curtis and Lawson (2001) noted that groups spent time planning, contributing, seeking input, monitoring and using social strategies. Stacey(1999) found that groups spent time clarifying ideas; obtaining feedback; sharing perspectives, resources and advice; seeking group solutions; negotiating meaning; practicing new language; providing emotional and technical support; conveying commitment to the group; changing roles as needed and managing group activities. All of these moves are consistent with those found in this study. Establishing common ground could perhaps integrate these and other frameworks used to understand online discussions, such as the idea of presence (Lombard & Ditton, 1997; Garrison et al. 2000; Russo & Campbell, 2004), sense of community (Brown, 2001; Haythornthwaite et al. 2000; Hill et al. 2002; Wegerif, 1998) and group norming (Graham, 2003). There is overlap between the findings of this study, for example, and those of Hill et al. (2002) who identify infrastructure and interaction strategies as two keys to building community online.

The frequency of eliciting and providing responses to each other (nearly 30% of all logistics moves) shows an emphasis on engagement and communication among group members, reflecting the negotiation process often evident in establishing common ground. Taken together the moves exchanged by the groups in this study fit the communicative functions for explicitly establishing common ground: conveying that he/she is willing and able to 1) continue the interaction, 2) perceive the message, 3) understand the message, and 3) react and respond, accept or reject the message (Baker et al, 1999). O'Sullivan et al. (2004) explain that in order to create immediacy at a distance, a language of approachability and regard should be used. The moves used by groups in this study reflect approachability and regard.

Makitalo et al. (2002) found that groups engaged in deeper level discussions used both social and cognitive cues to encourage participation. These included strategies of questioning, negotiation, providing evidence of understanding, a positive willingness to continue the conversation, and supportive feedback. However, agreeing too soon without negotiation kept discussions at a more surface level. This illustrates the importance of examining both the off-task and on-task conversations for a comprehensive understanding of what happens in online learning groups.

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