

Refereed Article

Why They Don't Work: Factors that Impede the Development of Social Cohesion in Online Collaborative Groups

William R. Jones

Abstract

This paper discusses the conclusions drawn from a qualitative study of social cohesion in two online collaborative groups and exhibits what data were used and how the data were coded. The data reveals how cultural, gender, and racial issues adversely affected the formation of social cohesion in the two groups as well as other factors grouped into four categories: technology related; individual related; group related; and instructor related. The paper provides an extensive literature review of group formation and the vital role that social cohesion plays in a group's task performance. Finally, recommendations about fostering social cohesion in online groups are made, and a call for additional research into cultural, gender and racial issues in online groups is made.

Vygotsky (1978) established that profound learning and personal growth can occur in collaborative learning groups and later scholars have corroborated his theories. Smith (2005) citing Bruffee, for instance, argued that collaborative learning results in

- a) increased learner motivation,
- b) opportunities for adult learners to develop critical and problem-solving skills, and
- c) a potential social atmosphere where all learners are afforded an opportunity to share, consider, challenge one another's ideas, and to construct new knowledge (p. 182).

William R. Jones is Assistant Professor of Composition and Rhetoric, Western New Mexico University.

Likewise, Fisher, Thompson, and Silverberg (2005) contended that groups help the learner to “explore his or her thinking” and that “the process of collaboration . . . provides the opportunity for the construction of knowledge” (p. 211).

As the number of distance education courses increase, however, the question becomes not whether collaborative learning groups create tremendous educational opportunities but how can the online instructor foster these powerful learning experiences in cyberspace? To have this experience, a group must have what Cross (2000) termed a “collective mind,” a state where group members are interdependent and “know, trust and depend on each other” (Armstrong & Yarbrough, 1996, p. 34). Evolving into this state requires that the group socially and emotionally cohere, an evolution that cyberspace challenges. While research that explores the social component of collaborative groups in cyberspace exists, none strives to discretely name factors that impede the development of social cohesion in online collaborative groups. This research seeks to do so by examining two online groups that failed to form social cohesion.

Literature Review

Cooperative and Collaborative Groups

To understand the importance of social cohesion in collaborative groups, a distinction should be made between them and cooperative groups. A cooperative group does not depend on social cohesion to the degree that a collaborative group does because a cooperative group does not form a group consciousness. Rather, a cooperative group “requires learners to work together on a task, share information, and encourage and support each other” (Cranton, 1996, p. 26). While Cranton referred to this type of group as cooperative, Graham and Misanchuk (2004) named it a “work group” and described it as being product focused and having a “hierarchical leadership structure [with] clear role definitions” (p. 185), a way of working that Ede and Lunsford (1990, p. 185) labeled a “hierarchical mode of collaboration”. In this kind of group, members must work together, but they do not have to acquire a synergistic state where work produced is unique to the group rather than to any individual within the group.

On the other hand, Cranton (1996) cited MacGregor to describe collaborative learning as “shared inquiry” and Farquharson to characterize collaborative groups as those that “work together to construct knowledge . . . [by] “listening to and respecting others, understanding alternative

perspectives, challenging and questioning others, negotiating points of view, and caring for both the individual and the group as a whole” (p. 27). Ede and Lunsford (1990) called this kind of collaboration “dialogic” and said that the “dialogic mode is loosely structured and the roles enacted within it are fluid” (p. 133). Graham and Misanchuk’s “learning group” (2004) parallels Ede and Lunsford’s “dialogic” group since they characterized the learning group as having a “flat leadership structure [and] no role definitions” besides being focused on the learning process rather than on producing a thing. This kind of group will function optimally when group members form a cohesive socio-emotive bond.

The Development of Social Cohesion in Collaborative Groups

Fisher (1980) identified two interdependent dimensions of a group: the social and the task. He described the social dimension as “the relationships of group members with one another—how they feel toward one another and their membership in the group” and the task dimension as the “relationship between group members and the work they are to perform—the job they have to do and how they go about doing it” (Fisher, 1980, p. 38). To succeed in the task dimension, groups must experience a socialization process that leads them to a place where they like, trust and respect one another; otherwise they are “destined to substandard performance” (Fisher, 1980, p. 33). Because the two dimensions are interdependent, as a group engages in consensus building, social cohesion is strengthened and as social cohesion is strengthened, it becomes more likely that the group will reach a consensus.

Tuckman (1965) developed the model of the group socialization process most often referenced. Tuckman claimed that groups form in four stages: forming, storming, norming and performing. While social and task dimensions occur in each stage, one or the other dimension dominates each one. For instance, in the first two stages, forming and storming, the social dimension dominates because social cohesion must form before the two more advanced stages can be reached. Trust and commitment matures as the group goes through the stages, a fundamentally recursive process.

Trust develops as group members make disclosures about themselves to each other especially during the forming stage of their development, and also during consensus building while performing collaborative tasks. Molinari (2004) showed that group members use “social comments” such as “social revelatory and tying messages until an emotional link occur[s] between participants” (p. 94). To overcome emotional and geographical

distance in an online environment, group members make disclosures about their personal lives, encourage one another, offer solace, use fonts and punctuation to express emotion and address one another by name (p. 94). As distance is overcome, participants become aware of each other's "social presence," a state in which group members "[feel] intimacy or togetherness" (Shin, 2002, p. 122) and "the consequent appreciation of an interpersonal relationship" (Tu & McIssac, 2002, p. 133). A group in which members feel each other's social presence has social cohesion, some of the characteristics of which are interdependence, intimacy, familiarity and vitally an "element of trust and responsibility for each other" (Beer & Slack, 2005, p. 35).

Group members who belong to cohesive groups in which trust is present, tend to be motivated "to achieve group goals" and exhibit a willingness to express ideas with which other members may disagree (Birmingham & McCord, 2004, p. 77). Matusov, Hayes and Pluta (2005) argued that to become the community of learners that a cohesive group is, group members need to have intrinsic motivation, a motivation attributed to students who learn for the sake of learning, versus the extrinsically motivated who seek merely to fulfill classroom requirements (p. 77), an argument with which Hargis (2005, p. 159) would agree. Intrinsically motivated group members more readily and completely commit to the group's processes. This commitment shows in their willingness to bond with the other group members and in their willingness to express ideas and to respond to the ideas of others, both in agreement and in disagreement (Birmingham & McCord, 2004, p. 78). Fisher, Phelps and Ellis (2000) cited Palloff and Pratt (1999) to suggest that a lack of commitment and motivation likely dooms an online group.

Cultural, gender or racial differences stress social cohesion in collaborative groups, even those with highly motivated and committed members. Challenging Cahoon's (1996) argument that electronic environments can "level the playing field, because they cancel out structural factors such as race and class" (p. 94) and other scholars who have asserted that the traditionally disempowered collaborate on a more equal plane with those in the dominant culture in an online environment (e.g., Harasim, 1990; Hawisher & Moran, 1993; Hiltz, Johnson, & Turoff, 1986). Pagnucci and Mauriello's study (1999) suggested that online collaborators bring the same kind of cultural, racial and gender baggage to online collaborations as they do to face-to-face ones, and others (e.g. Berdal & Craig, 1996; Sage, 2000) would support this idea. This study reported that women, and by extension minorities, defer to the privileged

position of white, middle- and upper class men (p. 143), also illustrating Foucault's insight, as noted by Turkle (1997), that "power in modern society is imposed not by the personal presence and brute force of an elite caste but by the way each individual learns the art of self-surveillance" (p. 247). Nevertheless, diverse collaborative groups offer profound opportunities for the personal growth of group members, and in the online environment the potential for growth in diverse groups may be more profound because of the greater opportunities for "both reflection and interaction" (Warschauer, 1997 as cited in Gaddis, Naperkowski, Guzman, & Muth, 2000, p. 141). If so, online instructors should seek heterogeneous groups rather than avoid them.

The lack of a physical space in which to collaborate slows the formation of social cohesion in both heterogeneous and homogenous groups, heterogeneous groups being more affected because of the added tension created by diverse backgrounds (Cross, 2000; Fisher, Thompson, & Silverberg, 2005; Smith, 2005; Anson, 1999; Tu & McIssac, 2002). The lack of paralinguistic cues and spontaneous communication in computer-mediated communication also impedes social cohesion in online groups (Hawisher & Moran, 1993; Smith, 2005). Besides these issues, group members find it easier to withdraw from an online group engaged in conflict than to negotiate through the conflict, the negotiation of conflict being essential for the formation of a group consciousness (Smith, 2005). Yet, the online environment affords unique opportunities for reflection as well as the distance some need to voice their minds, particularly the traditionally marginalized (Bonk, Wisner, & Lee, 2003; Salmon, 2002), making studies such as this one essential.

Methodology

This study can best be described as a naturalistic inquiry with interpretations based on qualitative data. Using a qualitative design allowed for thick description of the communicative events that occurred between participants and a deep exploration of motives, perceptions, feelings, etc. of the participants. Coded transcripts of threaded collaborations that took place over the course of a semester comprised the majority of the data, and codes were developed from ethnographic memos kept after "reading recently completed pieces of field notes to identify and develop particular interpretations, questions or themes" (Emerson, Fretz, & Shaw, 1995, p. 100). Besides this data, essays written by participants to reflect on the collaborative process, surveys, and semi-

structured interviews provided greater insight into the groups' dynamics and served to triangulate conclusions drawn from the coded discussions.

The class took place exclusively in Blackboard© with participants communicating with one another using the group function. The group function allows for threaded discussions under forums established by the instructor and for chat where only the team members and the instructor can participate. During the semester, students collaborated on six small writing tasks and on one long essay. The instructor provided each task its own forum on the group discussion board. Group members communicated asynchronously using threaded discussions under these forums and occasionally used the group chat function. In total, group one produced over 480 posts in all nine forums and group two produced approximately 300. These posts were coded as separate parts of a whole dialogue in keeping with Bakhtin's (1981) dialogic theory. Because they were part of a whole dialogue, coded online chats and email correspondence between the instructor and students was also archived and coded.

All students completed an exit survey that queried demographics, experience with technology, experience with collaboration, and their perspectives on the class. Students also wrote a graded, two-page essay reflecting on the collaborative experience. From their coded communications, my field notes, their surveys, and their reflective essays, I formed questions to ask each individual student in semi-structured interviews. Students answered between 15 and 20 questions. These interviews were conducted and archived using the Blackboard© group chat function. Most of the interviews lasted approximately one hour and yielded rich information that explained communicative events more fully. As such, the interviews along with member checks, surveys and reflective essays triangulated interpretations and validated coded transcripts.

Coding

Maxwell (1996, p. 78) and Miles and Huberman (1994, pp. 56-57) provided instructions for coding. I categorized coded communicative events affecting social cohesion in four different areas: Technology Related; Group Related; Individual Related; Instructor Related. Codes are defined below:

Technology Related

- SP—Instances where working in cyberspace or with technology impeded cohesion.

Individual Related

- SC—Self-confidence as a writer and/or a student. Self-confidence may foster social cohesion because the participant would not be afraid to voice her/his thoughts. On the other hand, over confidence could impede social cohesion if the participant tried to exert her/his will on the group.
- MO—Lack of motivation to complete the project.
- CM—Lack of commitment to the group and/or the project.
- OR—Responsibilities outside of the class that prevented participant from participating.

Group Related

- CI, GI, RI—Cultural, gender or racial issues that are imbedded social cohesions.
- NR—No response to a posting or very delayed response.
- EC—Expressions of commonality, use of vocatives, expressions of encouragement, etc. that created social pressure.
- TR—Expressions that indicate a lack of trust.
- DD, SD—Deep or superficial personal disclosures.
- CF—Attempts by one group member to control or facilitate discussion. Coded as either CFN or CFP depending on whether the attempt had a positive or negative affect on social cohesion. This distinction was made by noting whether the attempt was intended to invite collaboration or to dictate or control the group's activities.
- EI—Expression of ideas.
- FB—Feedback of one participant to another.
- AFB—One participant asking for feedback from others—impeded or fostered cohesion depending on whether feedback was received. See NR.
- MU—One participant misunderstanding another or others. Related to UC.
- MDM—Meetings or deadlines missed.
- UC—Unresolved social or task conflict.

Instructor Related

- IP—Prompts to groups or individuals to do something differently.
- IFB—Feedback on drafts or on other work or ideas. Prompt feedback promoted social cohesion by modeling responses and by connecting with participants, thus alleviating feelings of detachment and alienation.

Conclusions and Triangulation

Miles and Huberman (1994) insisted that “the critical question is whether the meanings you find in qualitative data are valid, repeatable and right” (p. 245). In order to arrive at “valid, repeatable and right” conclusions, I looked for themes as they became obvious in the coding matrix. These themes became obvious as one code appeared in a certain position for both groups a number of times. The interviews, surveys, reflective essays and member checks served to triangulate the conclusions drawn from the coding matrix. The interviews were especially useful because they helped me to achieve “contextual understanding . . . [and an] understanding [of] the processes that led to specific outcomes” (Maxwell, 1996, p. 64). In the next section, narratives explain what the codes in this graph mean as triangulated by the interviews and other data.

Research Findings

Figure 1 provides the number of times codes appeared in the matrix for each group. The graph does not seek to quantify data because one event may have more or less adverse or positive affect on social cohesion than another. For instance, an event related to cultural differences may have had a greater impact on social cohesion than one related to outside responsibilities. Nevertheless, this graph gives the reader an immediate impression of what happened in these groups.

Narrative Account of Group One

Group One consisted of three females, two white Americans and one Brazilian. Two of the women had children and all were highly motivated to succeed in school. On the survey, all reported having successfully collaborated on other occasions, and they all reported using email on a daily basis. One woman had taken two previous online courses, one had taken one, and one had not taken any. I gave the two American women the pseudonyms Martha and Gertrude, and I named the Brazilian woman Victoria.

Their Story

This group exhibited some early positive signs of developing social cohesion; however power struggles (coded as “CF”), lack of commitment to the group, responsibilities outside of the class, inexperience with the technology (coded as “IT”), and significant conflict from cultural

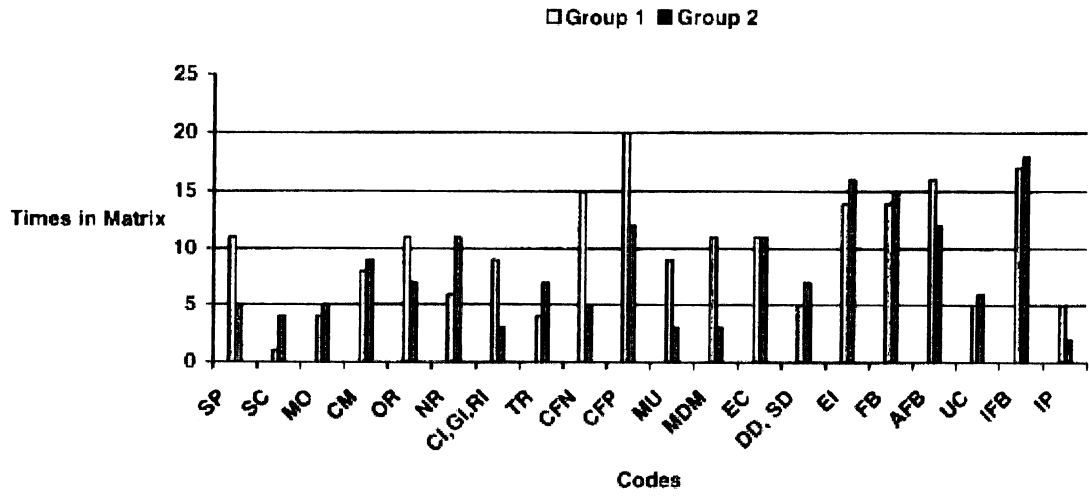


Figure 1: Codes by Group in Matrix

differences thwarted its development. For instance, Victoria's not responding to requests for feedback and her not expressing ideas in early collaborative tasks, as well as Gertrude's only marginal engagement, inhibited the three women from bonding. This occurred in spite of some personal disclosure, even deep disclosures when Victoria wrote about her mother's illness, as well as some attempts at finding commonality during an introduction forum. Illustrating this point, Victoria made no postings in the two forums for the first two small tasks and Gertrude made only three superficial postings of five to seven lines. On the other hand, Martha made six postings, most of them, such as the one below, being substantive:

Howdy Troopers-

The first assignment struck me as easy. . . until i (sic) started it! After all, how many times are we told to NOT talk about ourselves!? I started with some free- flow writing. Not even based on a finished copy of my paper, but just how I was feeling about myself, how this challenged me, what ideas i (sic) could use and what ideas i (sic) definitely couldn't use. This was interrupted with several smoking breaks to just "think about it". . . So, then i sat at the computer and my essay just kind of formed itself. I find that it's always really helpful for me to clear my head of my expectations before I write. . . It's enjoyable for me to read over something I've just written because it's like a journey for me . . .

This detailed posting depicts Martha's commitment to the group task as well as her willingness to make personal disclosures and to express ideas that should invite discussion. This posting, however, did not generate responses from the other two women.

During the large collaborative writing project, Gertrude and Victoria did not accomplish tasks for which they had volunteered and missed meetings they had agreed to attend. Consequently, Martha began to distrust her group mates. In her reflection essay, Martha wrote:

I know that several times, I felt very frustrated because we would schedule meetings, and not everyone would show up. This made me distrust my group members and instilled a sense of 'better do it myself just in case' syndrome, which made the paper more about what I wanted it to be, instead of what we wanted it to be. . . we agreed on a time to meet, and when we were all here, I was the only one who had [worked on the project].

Collaborating in cyberspace also impeded social cohesion. Besides technology that occasionally did not function properly, Victoria reported on her survey that hypertext was sometimes difficult for her to understand and complained that “when communicating online, people can share their thoughts and change them very fast. It is not always easy to catch what everyone is saying.” Martha noted in several places that collaborating in cyberspace posed special challenges for her, as well. In her reflective essay, for example, she said that “working in a group setting in the virtual field proved to be a very challenging, frustrating and somewhat non-rewarding experience.” and on her survey she said that:

collaborating within a physical environment is that (sic) people are more responsible with their time and evolution (sic), perhaps because you're accountable to someone who will actually see your face. I also think that online collaboration gives way to misunderstandings, which as we found out, only blossomed and split our group.

Concurring with her group mates by lamenting the lag time between asking for feedback and receiving it, Gertrude commented during her interview that “when time is the issue, waiting is agony.” These comments suggest that some of the group's problems may not have occurred or may have been mediated by a physical group setting.

Power struggles within the group seriously impeded social cohesion and ultimately caused the group to splinter. Primarily, Victoria's attempts to control the group engendered deep, unresolved social conflict within the group. This conflict began during an online chat when the group was just beginning collaboration on the final essay. Where the assignment called for the group to write a process paper describing how literacy for a largely illiterate nation could be achieved, Victoria tried to steer the group towards a more abstract conception of cultural oppression in Niger. To accomplish this task, Victoria insisted that the group use Paulo Freire's work as a foundation, remarking in one of her first communications:

One of the things that I would like to explore in this paper are some of the cultural contexts that would be necessary in other (sic) to deal with literacy. For example you could have a quick ass (sic) manual but if the contents are not meaningful to those who use it, or cultural (sic) sensitive to their needs and where they are at, it will not fly.

Later, quoting Freire, Victoria tried to move the essay towards a much more abstract construction than was appropriate for the process manual that the assignment required:

‘literacy is an active phenomenon, deeply linked to personal and cultural identity’ which means that his concept of literacy moves beyond the strict decoding and reproducing of language into issues of economics, health and sustainable development

In response to Victoria’s attempt to push the group towards this idea, Gertrude said: “i (sic) think that [Victoria’s idea] is a little deep for beginning literacy. It [basic literacy] is memorizing words and letters to begin with, but I guess some of them can read.” Martha tried to bring the discussion back to a more concrete and practical conception of the essay: “letting the people teach the people [literate natives teaching non-literate ones] and in the grassroots development, not only teaching people to read and etc but vocational skills like building and healthcare.” Trying to avoid conflict, Martha offered to use the Freirean quotation as a way to begin the essay, but it was too much for Gertrude and not enough for Victoria.

Perhaps explaining why she did not appear committed to the group and why she missed meetings and did not respond to posts, Victoria worked on her own version of the assignment and tried to post a draft of this essay instead of the group’s draft to the class discussion board on the stipulated due date for drafts. To make the document acceptable to her group mates, Victoria blended her version with their version. On the night the draft was due, the group had the following exchange on the asynchronous group discussion board:

Victoria: [Martha], any final words of wisdom before I place this master piece of work in (sic) our discussion board?

Gertrude: go ahead and post it . . .

Martha: I think we should cut some of the information-some of it can incorporated into the other main paragraphs to stress points later on.

Victoria: I am posting it right now. Lettuce meat tomorrow night after 9:00

The group had agreed that Victoria would post their draft to the class discussion board, but the draft that she posted was not the one the

group had agreed on; it belonged to Victoria. Her posting of her own draft caused the conflict in the group to worsen:

Martha: hey, which one are you posting? Are all the references on it?

Victoria: The very last one. It is in the discussion board already. Did I miss something?

Gertrude: Yup she posted her's! no references. . . I think you should post the one you just did and say don't read the above in the subject. . . this is fun isn't it?

Martha: I see [Victoria] posted the other version, are either of you still here? What do you think?

Finally, the group posted its draft and instructed the class to disregard Victoria's, about which Victoria had the following to say:

You know, I think that two votes against one makes up a final decision. I am opposed to have Republic of Niger's background information chopped out of the essay, but if that is what the majority decides to do, go for it. No hard feelings.

Despite her comments, Victoria did have hard feelings as did the other two women, illustrated by what happened next.

After submitting this draft, the group's assignment was to develop a revision plan for preparing a final draft, on which Martha and Gertrude worked but Victoria did not. Rather, Victoria revised her draft and submitted it to the group discussion board on the last day before spring break, so Martha and Gertrude were unaware of its posting because the Blackboard system verified that neither of them entered the course until the day classes resumed.

On their return after spring break, Martha and Gertrude began making posts to the group discussion board at 1 PM on the day the final draft was due at 12 midnight. According to the posts, they had conversed by telephone earlier, but apparently no attempt was made to contact Victoria. Victoria made her first post at 9:37 PM, apparently not seeing the posts the other two women had made:

Howdy, hope everyone had a nice spring break. I am not sure if anyone is planning on logging in tonight. I will check it at 10:00 PM again. If no one is around, I will post what I have worked on it, (sic) so far.

Martha made the following post when she read Victoria's:
Hey everyone! I read your second post [Gertrude] and came up with this, my second post of final draft . . . i'm (sic) not sure what we'll do now that [Victoria] is here too, I guess we'll have to come up with another?

This exchange documented Martha and Gertrude's collaboration on the final draft as well as exposing Victoria's absence from the collaboration.

Martha and Gertrude continued their collaboration without anymore exchange with Victoria who made a post at 11:04 PM, the subject of which was "we need to figure out a better way to communicate and work as a team." In this post, she complained that her work had been "dismissed by [Martha and Gertrude] entirely." This post began the group's final meltdown, Martha responding with:

Don't take this in a rude way, I'm just trying to say what I have to say . . . The thing is that [Gertrude] and I have been working at this for a lot of the day . . . I think you feel frustrated because you've submitted a paper, but the thing is that it's past eleven, we would have to all go over a revision for this new paper when [Gertrude] and I have already revised and combined several times another paper

and Gertrude responding with:

You posted you NEW paper at 11:00 pm on the day that is (sic) was due. Yes, we do need to communicate better but this is the best we can do for The time being.

These posts clearly showed the group's frustration, but later posts in which accusations and counter-accusations are made displayed a disintegrating group.

The women were to collaborate on one more essay after this one, but Victoria left the group and did the remaining assignment on her own. The quality of the work done on Martha and Gertrude's last collaborative effort and their more positive feelings about the class indicated that Victoria's leaving the group was beneficial for Martha and Gertrude, particularly so for Gertrude who at the beginning of the semester, was leader of the group but had lost motivation, "because of the thing with

the team getting along” (Gertrude, personal interview, May, 2004). The team’s not getting along caused Gertrude to “not turn the computer on” (Gertrude, personal interview, May, 2004). Martha had interpreted Gertrude’s absence as a lack of motivation; thus she had not trusted Gertrude. When Victoria left the group, however, Martha commented on her survey that “[Gertrude], at first, seemed very unmotivated to excel in this class, however, after doing this last collaborative project with her [after Victoria left the group] I’ve found that she has been very motivated to make this last paper great!” Gertrude removed any doubt about her feelings for Victoria when she commented during her interview that “I think [Victoria] needs medication for her psychological illness” (Gertrude, personal interview, May, 2004). While not expressing the same harsh feelings for Victoria, Martha said during her interview that “it was . . . [Victoria’s] unwillingness [to negotiate] that hindered the group effort so we did good (sic) without her” (Martha, personal interview, May, 2004). Thus, all of the data clearly shows that Victoria’s presence created a serious impediment to social cohesion in this group.

This impediment can be at least somewhat attributed to Victoria being from a non-dominant culture. She remarked, for instance, that her “thought process . . . is still very rooted in Italian and Brazilian heritages” and in her survey she stated that she was not treated fairly by her group mates because of her culture, encouraging them to “go get some training on how to become more culturally sensitive and efficient when dealing with people who do not share the same cultural background or upbringing then (sic) yours.” Martha gave credence to the notion that different cultures and backgrounds caused the group’s meltdown when she remarked in her interview that “cultural differences were a factor” in the group’s many misunderstandings and also what she called “environmental differences . . . just being raised differently, where each of us has been and experienced—our understandings being skewed or tuned.”

Because Gertrude and Martha were the same race, from a similar socio-economic class, similar ages, and from the same Wisconsin rural culture, they may have formed a power dyad that pushed Victoria out. Victoria’s manipulation of the collaborative project and her lashing out may have been efforts to empower herself in that case. Since Victoria would not be interviewed for this study, however, I can only speculate.

Narrative Account of Group Two

The members of group two. Group two consisted of four people: a 33 year old Caucasian woman with a child; an African-American woman of 32 with two children; a 29 year old Caucasian woman with three children and a Caucasian male of 22. Of the four, the Caucasian woman, Rebecca, had the most writing skill and seemed the most motivated. The African-American woman, Donna, was also motivated but lacked confidence in her writing skills. The other Caucasian woman, Susan, was motivated but her outside responsibilities made doing her school work very difficult. The male, John, was motivated to complete his degree but did not seem to like the collaborative approach of the class.

Their Story

Social cohesion started forming for this group, but the withdrawal of two participants from the course and the unacknowledged conflict apparently related to gender between John and Rebecca assured that the group would not cohere. John's failure to respond to Rebecca's expressed ideas which were always accompanied by her requests for feedback, as well as his being largely absent from the discussion forums after the other two women left the course, suggest that John just did not want to work with Rebecca. Besides the gender issue that impeded cohesion, Donna felt the group did not value her ideas because she was Black and she subsequently left the group. A review of the transcripts does not suggest that this was the case. Still, her perception was real and may have been deeply rooted in her being a part of the historically marginalized and disempowered. Illustrating how she felt in the group, Donna said in my interview with her that she "[didn't] think any of the work or research I did was used at all . . . which made me feel kind of bad," but in fact her work had been used. Regardless of whether she was mistreated because of her race, Donna's being African-American had an impact on the group's social cohesion.

A greater impediment to social cohesion than race, the group did not communicate in the initial forums designed to move the participants through the forming state. For instance, only Rebecca made significant responses to introductions. These responses always searched for places of commonality, even if they usually did not include a vocative. She responded to John's introduction, for instance, by saying:

I bet [since we live in the same small town] we have a lot of mutual friends and/or acquaintances. I'm quite a bit older than you but I've gotten to know a lot of locals with big families, so I know the younger siblings through the older ones.

To Donna's introduction, she responded:

You said that you're terrified of writing but I think that if you're (sic) intro. Essay is any indication of what you're (sic) capable of, (and of course it is) you have nothing to fear. It was decent writing & you sound like a very literate/educated and accomplished person.

These two responses are typical of the ones Rebecca made to the introductions of the others in her group. These responses could have begun a socio-emotive bonding within the group, but nobody else responded to introductions, although they were required to. To explain her lack of response, Susan said that she had "been confused" about what she should be doing, but the others made no excuses.

On the first team task, only Donna made any effort to complete the assignment with Rebecca making a response to Donna on the day the assignment was due. This lack of response to Donna likely contributed to her feeling unvalued by the group, but a more likely interpretation is that the group members were merely not engaged in the task, although Rebecca reported during her interview that in these early forums she was still not comfortable with communicating via the computer. Rebecca's response to Donna implied that Rebecca had looked at the assignment before the last day. It also illustrated Rebecca's efforts to support her group mates in word if not in presence:

[Donna] I think you did a very good job. You gave each sentence clear direction & room to expand into supporting points without being too bold or argumentative (sic). You gave me direction as well. At first glance I wasn't really sure what to do with this assignment. Thanks.

This response to Donna, in which she addressed Donna by name, lost its effectiveness because it was so late, but the other participants made no response at all, either to Donna or to Rebecca. Clearly, the group members were acting as individuals rather than as a group.

To prompt the team, I made the following post after Rebecca responded to Donna:

[Rebecca] you've made some good suggestions for how to revise these thesis statements. Unfortunately, no discussion ever seems to have taken place. Your team will need to do better than this on future assignments if you hope to be successful in this class. You're welcome to call me or email me if you have any concerns or problems.

I intended for this post to discover any issues participants may have been having as well as to prompt the group to work together. The post did prompt responses from Susan and John that revealed their feelings. For instance, John said:

Oh I guess I totally blanked on this one. Sorry team. I was under the impression that these [assignments] were added to get us talk (sic) and start creating our [required] 7-8 postings per week.

And Susan said:

I (sic) am sorry. I was under the same impression as [John]. I will try to do better. I think we should all stick this out, (sic) we can do it. Could we please agree on some times to commit to, so we can work as a better team?

These two posts indicated that neither Susan nor John understood the principles of collaboration and felt no responsibility to the group. They may have started to feel more responsible during the next few weeks, or they may have feared for their grades because their collaborative postings increased dramatically, suggesting that the instructor prompt worked. Nevertheless, during this period Donna dropped the course without explanation, although she did consent to be interviewed by telephone after the class ended.

When work began on the long essay, this group seemed to be cohering, finally, as is evidenced by all three expressing ideas, offering feedback and beginning to negotiate towards a common vision for the essay. Suggesting that she needed more than the technology to work with her group mates, however, Susan asked the group to meet in person, proposing to meet at the school library. When the group met at the library, they discussed team roles and accepted tasks. The meeting also seemed to

help Susan cohere with her group, her commenting on the discussion board that

I thought it was nice to put faces to our names. I enjoyed meeting both of you. Also, I felt we were able to accomplish a lot more by meeting in person, rather than playing email tag; with our various lifestyles and schedules (sic). . . I think we have oneanotheres (sic) phone numbers, if we needed to meet by phone or set up a time to meet again.

Susan's remarks strongly infer that she did not feel as though she could collaborate successfully with the other two people in cyberspace. These feelings may have culminated in her giving up on the course.

The next week, Susan suggested that the group meet in person again but two days before the group was to meet, Susan and Rebecca had a task-related conflict that could have led to deep discussion and consequent profound creativity. Unfortunately, the conflict may have prompted Susan to withdraw from the class, or it may have convinced her that she could not collaborate online. Because she was not interviewed, I could reach no conclusion.

The conflict initiated with Susan expressing the following idea, based on her misunderstanding that the assignment required an assessment of the political stability of the country chosen:

As for political stability and it's (sic) role in this project, I believe it's very crucial, if a project like this was for "real" you would probably like some political stability in their politics, otherwise it would be much more likely things could happen to stop or change the project.

Susan went on to give a vivid example of what could happen to a literacy program in a politically unstable country, to which Rebecca replied:

The political stability of the country that we chose was important to me as well, otherwise there could be all sorts of barriers to implementation of the program—however, I think this quality may only be relevant to the initial choice of the country & not to the process manual itself. I think this is what Prof. Jones was getting at. I'm not sure that we have to discuss Kenya much because Kenyans are our audience.

Neither Susan nor John made a reply to this post, and on the next day Rebecca made the following post:

To give you a heads up [for their personal meeting the next day] I'm thinking that we should define literacy, which encompasses a lot of different subjects and describe the necessary steps or order or model for teaching literacy in these areas & perhaps include info. about additional resources available, but I absolutely do not want to even begin to make this process manual into curriculum for teaching.

Neither Susan nor John made a reply to this post, either, and on the day they were to meet, Susan dropped the course. Rebecca's strong expression of ideas may have intimidated Susan or angered her, but since no other data exists, I cannot draw a conclusion.

After Susan withdrew, John largely disappeared from the discussion. John apparently did not like the collaborative approach of the class. Suggesting that he needed a more hierarchal, cooperative group, he commented on his self-reflection: "I admit it was hard and still is hard for me to make compromises. I think I work best if I am the leader (dictator) or if someone assigns me specific work to get done." These remarks somewhat explain why John refused to collaborate with Rebecca and why he tried to do the assignment on his own.

Rebecca invited John's collaboration on a number of occasions, but while he had apparently been working on the assignment, he made only one or two superficial responses to her per week. Two days before the first draft was due, for instance, Rebecca posted that she was

going to start working on the 1st draft tomorrow morning. I hope to hear from you by then or soon after. Give me a call & let me know what you're up to this weekend if that's easier than making an entry here. We have a lot to coordinate somehow.

Arranging to meet with John in the library, Rebecca discovered that John had been working on the assignment but that his response to it looked much different than hers. After their meeting, Rebecca posted:

Thank you for working on the 1st draft! I'm going to spend some time on the 2nd draft tomorrow. I'm afraid we have a long way to go before Monday, March 8th [2nd draft due date]. I want to define our audience,

redefine literacy and the steps necessary for developing a literate populace. If there is some aspect of the paper that you feel strongly about please let me know as soon as you can. . . I'd like to communicate about this draft more frequently. We were really off in different directions & I'm sure it was very challenging to integrate our ideas on the day the essay was due.

Here, Rebecca demonstrates leadership on the assignment and even approaches dictating the direction in which the assignment should go. For instance, she does not ask John how he thinks the audience should be defined; instead, she tells him what she wants. John did not answer my request to interview him, but he perhaps resented Rebecca's attempts to control the discussion and consequently rejected them. Obviously, John's absence from the discussion devastated social cohesion and assured that the two would not complete the assignment collaboratively.

In the final weeks before the assignment's due date, Rebecca made several more attempts to discuss the assignment with John and even made disclosures to him that could have been socially cohering if they had been reciprocated. One such posting is as follows:

I didn't get much accomplished yesterday since I was in Madison, got Ian's [son] haircut, ran some errands, went to a baby shower at a bowling alley which he loved. . . I've been working today and while it doesn't seem like much it was the hardest part . . . Hope everything is going well.

Rebecca's personal disclosures could have given the two an opportunity to discuss what was keeping them apart, but John did not respond. To try to save the collaboration, I called the two to my office, but nothing changed significantly as a result of my admonishments; Rebecca kept reporting on her progress, and John kept making superficial comments when he made any at all, having apparently given up on working on the assignment himself. At the end, the assignment that the two submitted had been written by Rebecca with almost no input from John.

Conclusions

Data from these two groups supports the research that describes the necessary characteristics of a successful online collaborative group and

provides a thick description of two groups that did not enjoy these characteristics. For instance, successful online groups bond socially and emotionally despite the lack of a physical space in which to relate and sometimes because of it. As noted by several of the participants in this study, the lack of a physical space impeded socio-emotional bonding in these two groups, but noting the number of times “EC” and “DD” appeared as codes in the transcripts, only two participants, one in each group, made a serious effort to bond with the other members. Missed meetings and deadlines along with a failure to provide feedback exacerbated the resistance to socio-emotional bonding. This study cannot show how these participants would have responded in physical space, but they would have found it more difficult to avoid one another in a physical space.

The lack of social presence and the absence of paralinguistic cues made misunderstanding more likely in these groups. In fact, while group members knew conflict existed between them, they could only speculate why it existed because nobody ever acknowledged underlying issues with the exception of group one who began what could have been a process of discussion and reflection when their group went into a meltdown. This conclusion supports contentions by McDuff (1994) and Palloff and Pratt (1999) that the online environment engenders conflict more readily and Fisher, Phelps and Ellis (2000) that “anger or frustration may not be so readily communicated” (p. 491) in the online environment because of the lack of paralinguistic cues.

Instead of acknowledging and discussing it, the online environment made it easier for these participants to avoid conflict. Palloff and Pratt (1999) noted the ease with which people become absent in online groups (p. 37) and Fisher, Phelps and Ellis (2000) reported that participants in their study found it “easy not to become involved” (p. 488). A possibility perhaps related to the avoidance of conflict, Smith (2005, p. 183) postulated that some group members withdraw from their groups because they do not want to lose their individual voices during the consensus reaching process that collaboration requires. Certainly in the cases of Victoria, Gertrude and John, the notion has merit.

Recommendations

Barab, Thomas and Merrill’s (2001) study “provided empirical evidence for the existence of deep and meaningful learning in online courses” (p. 137) in which collaborative groups were used, and I have facilitated online

groups that experienced deep personal growth and learning as a result of working in a collaborative group. Indeed, the learning that can occur in online collaborative groups can be significantly more profound and meaningful than learning that can occur in more self-directed techniques. But as this study shows, some factors gravely affect the formation of social cohesion in online collaborative groups. Primary among these, cultural, racial and gender factors greatly challenge social cohesion, but additional research may reveal how the online environment offers a rich opportunity for transformative learning for diverse groups. The instructor also does not have control over the motivation, self-confidence and other personal traits of group members, but s/he does have control over the creation of the learning environment and over how the class is facilitated. Since facilitating this course, I have learned to educate online students about collaborative principles, and to give them extra time in the forming stage because online groups need that extra time to form (Smith, 2005, p. 185; see also Wegerif, 1998 and Tu & Corry, 2002). Besides using some of the forming activities that Palloff and Pratt (2005) recommend during the forming stage as well as requiring students to post pictures and biographies, I strongly encourage the use of synchronous chat by scheduling class and group meetings because synchronous chat can help students gain social presence in the group. I have learned to wait a couple of weeks before putting people into groups to allow for withdrawals, as well. Otherwise, people may have to be shifted from one group to the other, and when the elements of a group change, so does its dynamics; thus, the group would re-enter the forming stage. Finally, as the group collaborates on various projects, I make the group members aware of my presence by offering feedback or occasional prompts, but I heed the warning of Smith (2005) who cautioned that “instructor attempts to solve . . . group conflicts . . . might stagnate or destroy the group” (p. 196). Therefore, I allow the group to form on its own with only necessary interventions.

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