

Internet Relationships: Building Learning Communities through Friendship

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Abstract

The experiences of students in an online learning community were explored in this qualitative case study using social presence theory as an interpretive lens. Participants included five undergraduate students in a certificate program at a large Midwestern university. Students who felt a sense of community online most highly valued the friendship they felt with their online teammates. Three main components were key in the development of friendship: individual learner factors, sharing, and support. All students found face-to-face contact to be essential, as it deepened their relationships considerably. Suggestions for how faculty can encourage the building of friendships online are given. Further research is recommended into the role students' personalities and face-to-face contact play in building an online community.

Introduction

Cultivating a sense of community in education has become increasingly popular. Researchers have built upon the foundational work of Vygotsky (1978), who determined that social collaborations are key to mental development. Research has identified the many benefits that community affords learners (Bielaczyc & Collins, 1999; Haythornthwaite, Kazmer, Robbins, & Shoemaker, 2000; Preece, 2000). There has also been considerable discussion about theoretical issues such as how to define community (Ingram, 2005; McMillan & Chavis, 1986; Rovai, 2002), learning communities (Barab & Duffy, 2000; Bielaczyc & Collins, 1999; Dede, 2004), and online learning communities (Ingram, 2005; Palloff & Pratt, 1999; Shea, 2006). Others have chosen instead to study specific aspects of these communities (Brown, 2001; Renninger & Shumar, 2002; Rovai, 2002; Shea, 2006). Most of these studies have been quantitative (Rovai, 2002; Shea, 2006; Wright, 2004), while a limited number have been qualitative, focusing on different aspects of various online learning communities (Brown, 2001; Greene, 2005; Duemer et al., 2002).

While most studies point to the advantages of developing a sense of community online, other research reminds us that more understanding of these learning contexts is needed (Ingram, 2005), as there is a tendency to have “unwarranted optimism” about the value of community-based educational strategies (Hewitt, 2004, p. 210). Specifically, one area that would benefit from more research is understanding how students experience a sense of community online (Shea, 2006). This research seeks to address the needs discussed above by providing an initial exploration of undergraduate students' diverse experiences in an online learning community.

Methodology

A case study approach was used to understand these students' experiences, as this approach allows for understanding people and how they operate in a specific context (Stake, 1995). The particular case used for this study was chosen based on purposeful sampling (Patton, 2002), as the class was perceived as being rich in information. Also, it is a unique case, which is appropriate for case study research (Stake). A search of programs revealed no other courses using the same instructional model or the same type of student collaboration.

This qualitative study is grounded in phenomenology in that it seeks to understand a phenomenon, namely how students experience a learning community, from a first-person point of view (Patton, 2002). Phenomenology was chosen because it allowed for developing an understanding of the everyday world of the students and the meanings and significance they ascribe to their world, which is the purpose of this study. It also allowed the essence of the phenomenon itself to emerge after careful attention to different perspectives (Creswell, 1998).

Description of the Case

The class chosen for this study is different from traditional hybrid classes. It took place in the Global Leadership Center (GLC) at a Midwestern university. The course is one of eight courses that undergraduate students in the GLC 30-credit hour certificate program take together over the span of two years. Students take this course in their first quarter together. There were five instructors for this project-based course (the author and four other instructors), with each instructor serving as faculty advisor for two or three teams. This course consisted of 40 American students studying in the U.S. and 28 Thai students studying in Thailand. Students worked in intercultural teams of four or five students on a project for a real Thai client, communicating through an online, password-protected discussion board (consisting of an all-member discussion area, a faculty area, and an area for each team) and a group conference call toward the end of the online portion of the class. At the beginning of the course, each student was required to post a personal biography and picture, each team was required to write team goals and expectations, and the Americans were asked to post pictures of their college town. After 5 weeks of working virtually, the American students traveled to Thailand for 2 weeks to complete the project. The goal of the in-country portion of the course, as stated in the syllabus, was to “work as a member of an international team ... to conduct research on behalf of an organization in Chiang Mai.” Instructors served as facilitators, but students had to ultimately solve the problems they encountered and resolve any contradictions that arose. In this model, two distinct, distant, face-to-face communities worked together online and then came together for project culmination. For this research, only the online portion of the course and American students were studied.

The online section of this course matches the description of an online learning community as defined by Ludwig-Hardman (2003): “Groups of people, connected via technology-mediated communication, who actively engage one another in collaborative, learner-centered activities to intentionally foster the creation of knowledge, while sharing a number of values and practices” (p. 35).

Researcher’s Role

This study was carried out during a class taught by the researcher. The potential limitations of backyard research (Creswell, 1998) were minimized through: (a) the triangulation of data (Lincoln & Guba, 1985), (b) member checking (Lincoln & Guba), bracketing prejudgments (Creswell), (c) noting and reflecting on possible biases (Creswell), (d) interviewing students with different faculty advisors, (e) checking facts and interpretations with other faculty members, and (f) ensuring that students understood that their participation in the research project would not influence their grade. Although backyard research needs to be considered carefully, in this case it benefited this study as it facilitated quality data collection. This research strategy allowed for the collection of the most meaningful data about the students’ experiences under the circumstances (Patton, 2002).

Data Collection and Analysis

The question that guided this research was, “How do American undergraduate students experience an online learning community?” The grounded theory approach was used (Creswell, 1998) and data collection was a cyclical process of observing, reading online communication, reading course documents, interviewing students, and keeping careful notes of observations as well as responses and thoughts. Data analysis began with the first observations and interviews, through memos and preliminary model construction. This early analysis allowed for purposeful sampling, theory building, flexibility in data collection (Eisenhardt, 2002), and the emergence of the phenomenon in order to derive general meanings (Creswell). Detailed notes were used to guide future analysis and theory formation. Students’ experiences were compared, and the data was approached from different angles to minimize the effect of initial impressions.

After preliminary analysis and model formation, the software NVivo 7 (QSR International) was used to code the data. First, open coding was used to identify categories and subcategories and to organize the data. For example, a code that emerged early in the study was “sharing,” with the subcategories of “project,” “lives,” and “culture.” Relationships between the codes were then identified, and tree structures were organized accordingly. Reflecting on the tree structure after coding all documents allowed the theory presented here to emerge. Testing of the theory included reviewing the data for negative examples, comparing this study’s findings with the literature, and performing member checks. The final understanding of the phenomenon of an online learning community as experienced by students presented here reveals a structure that can be said to be experienced by most students in this online class (Creswell, 1998).

Social presence theory (Short, Williams, & Christie, 1976) was used to interpret the social interactions students experienced in the course. In addition to working well in conjunction with phenomenology, this theory was also used as it allows for the study of how computer-mediated communication and distance affect social interactions. According to social presence theory, what matters to relationships that develop through media is that a communicator feel that the other communicator is a real person. How social presence is experienced with a medium is largely determined by individual users—how they understand the medium, how much they feel like they are communicating with a real person, and how those feelings affect behavior.

Participants

Data (observations, online communication, and interviews) were collected on five students. Students were chosen with purposeful sampling as being “information-rich” (Patton, 2002, p. 243) and able to explain the culture of the course. Maximum variation sampling was used, as students were selected who were on different teams, had different advisors, and had a variety of experiences/relationships with their online teammates. This procedure ensured that patterns existing across the students could be noted (Patton). Interviews lasted from 30 minutes to 1 hour and were transcribed for analysis. Reflections after each class and each interview were written down in a notebook. While two of the five students were interviewed twice, three students were interviewed once due to the nature of purposeful sampling and the short duration of the online portion of the class. Brief descriptions of each student (using pseudonyms) follow. All students are from 19-21 years old.

Donna is a junior majoring in Aviation Management. She is quiet, hard-working, and a solid team member. She said that she tries hard not to pressure people when working with them. She is a member of a few campus professional and student-leadership organizations, and she still communicated with one Thai teammate at the time of her interview. Donna indicated that she did

not feel a sense of community in the online portion of this course. Donna was interviewed twice, at the end of the online portion of the course and after the course was finished.

Vicki is a sophomore majoring in Business. She is considered hard-working, enthusiastic, and a good communicator. Vicki's maternal grandparents were from Mexico, and her mother's native language is Spanish. Vicki mentioned that she consciously tries to make a positive impression on people, especially if she is working with them for the first time. She belongs to a number of professional groups and still communicated with her Thai teammates and other Thai friends at the time of her interview. Vicki indicated that she did not feel a sense of community in the online portion. Vicki was interviewed in the middle of the online portion of the course and at the end of the course.

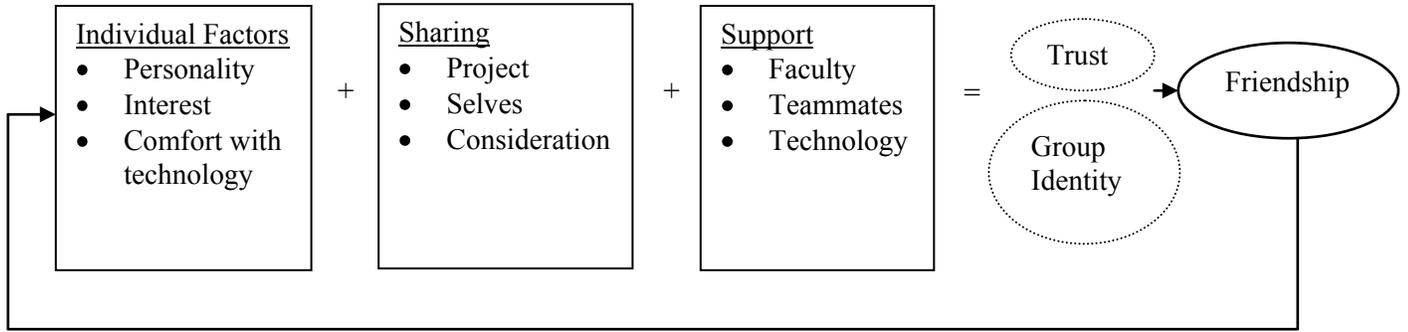
Jennifer is a junior majoring in Political Science. She is considered hard-working, reliable, soft-spoken and conscientious. In addition, she is involved in several on-campus organizations. Jennifer described herself as trying very hard not to offend others, especially if she does not know them well. She still communicated with her Thai teammates at the time of her interview. Jennifer indicated that she did feel a sense of community. Jennifer was interviewed after the course was finished.

Doug is a junior and an English major. He has a direct, take-charge personality and contributes fairly to team work. Doug still communicated with his Thai teammates at the time of his interview. He indicated when working with new people, he tries to become their friends. Doug said he did feel a sense of community. Doug was interviewed after the course was finished.

Elaine is a sophomore majoring in social work. A student quick to smile, Elaine is thoughtful, talkative, and a hard worker. She stated that she does not belong to any groups and she still communicated with her Thai teammates at the time of her interview. Elaine indicated that she did not feel a sense of community. Elaine was interviewed after the course was finished.

Findings

Of the five students in this case study, two felt a sense of community in the online portion of the class. Most important to these two students was the feeling of friendship they developed with their distance teammates. Three main factors contributed to the building of friendships: individual learner factors, sharing, and support. Intermediate steps in the building of friendship were trust and group identity (see Figure 1). The absence of one of the three main factors resulted in decreased feelings of friendship by the student (see Table 1). This relationship-building process is cyclical and reiterative. As such, the relationship-building process can be influenced (e.g., by instructors, technology, personal growth, or other learners). The following discussion focuses on how the students in this case study experienced or did not experience the feeling of friendship and how the various factors contributed to their experiences.



As feelings of trust and group identity develop, students become more motivated and share more, leading to increased feelings of friendship.

Figure 1. Components of relationships in an online learning environment

Table 1: Presence (+) or Absence (-) of Key Components that Led to Friendship Online

Participant	Individual factors	Sharing	Support	Trust and group identity	Friendship
Jennifer ^a	+	+	+	+	+
Doug ^a	+	+	+	+	+
Vicki	+	-	-	+	-
Elaine	-	- / + ^b	+	+	-
Donna	+	-	-	-	-

Note. (-) indicates one or more parts of a component were not observed.

^a Jennifer and Doug said they felt a sense of community online.

^b Elaine started including non-project information in her postings after the phone conference.

Feeling like Friends: Jennifer and Doug

It was clear from interviews that the feeling of being connected to a person on the other side of the world was important to Jennifer and Doug. As Jennifer commented: “I just think our relationship was important. ... I thought that [the online portion of the project] was a really good way of going about it because I had never really had any kind of relationship ... with anyone other than with people who are just like me, like white.” When asked what was important in the class, Doug said:

Stress that people should try to develop friendships. ... I wasn't just thinking about the project all the time, I'd just kind of talk to them...sometimes I'd just be at the library and I'd be like, You know, why don't I just drop them a line and see what they're doing. It was kind of fun.

Doug felt that having fun is a part of friendship.

Doug and Jennifer looked forward to the relationships they would form. As Doug posted at the beginning of the course, “I am sure we will all become good friends.” And Jennifer said that she purposefully tried to build friendships. For example, about her initial postings Jennifer said “I remember signing ‘your friend, Jen,’ the first time because ... I wanted to be on a friendly basis when we got there. I wanted things to be open and them to feel like I was a friend.”

Both Doug and Jennifer commented that feeling like friends facilitated the project. Jennifer commented: “If you don’t really have that relationship with them then you might not work as well. I think that if you know them better, you’re able to explain what you think more, whereas if you don’t really know them, then you might be afraid to kind of open up.”

Not Feeling Friendship: Elaine, Donna, and Vicki

Elaine, Donna, and Vicki did not experience feelings of friendship during the online portion of the class. Elaine referred to her online Thai teammates as “acquaintances” and said she had “no expectations” about their relationship online. The majority of her postings were business-only, lacking even salutations and closings. It should be noted, however, that her postings did become more personal after the conference call. In an interview, Elaine stated that she had no interest in forming friendships online but that she did want to become friends when they met in person.

Donna had the opposite experience from Elaine. She stated that she wished she had gotten to know her teammates better and envied other students who did form friendships. She felt their lack of friendship did negatively affect the project: “I felt bad telling them that we had something due and requesting work. So, I was more timid posting that” and “I think they [her Thai teammates] may have gotten irritated with us in the middle.”

Vicki also said that she wished she had gotten closer to her teammates. However, she termed her Thai teammates “acquaintances” before the trip for Thailand. She explained that she chose to communicate only about the project (leaving the social communication to another team member). She believed that “connection is essential,” but that it was not necessary for all team members to be friends with each other. She did, however, feel that she was part of a team: “I tried really hard to show we were a team even though we weren't together physically.”

Factors Affecting the Feeling of Friendship

Two prerequisites to students feeling like they were friends with their Thai teammates were trusting their teammates and feeling a sense of group identity. While two students (Doug and Jennifer) trusted, felt group identity, and felt friendship with their online teammates, two other students (Vicki and Elaine) trusted their teammates and felt they were a team, but they never developed a feeling of friendship. The fifth student, Donna, did not particularly trust her teammates or feel group identity or friendship with them (see Table 1).

Once the students trusted and felt like a team with their online teammates, feelings of friendship depended on three factors: individual student factors, sharing, and support. The absence of any of these factors led to students not feeling they had developed a friendship.

Individual factors: Personality/interest and comfort with technology. One key factor to developing a feeling of friendship was how much the student was interested in developing a relationship and willing to take risks. As Jennifer wrote in her online communication, “If you want to know anything else, just ask! I would love to talk to you!” She also took the risk of sending several pictures revealing her home and family and telling her Thai teammates about her life. Doug did the same. These students were interested in forming relationships with students from a different country.

However, Donna and Vicki did not take as many risks. At the beginning of the course Donna showed interest in developing a friendship, with friendly postings, but her early online attempts at friendship were not reciprocated by her Thai teammates. Her subsequent postings included almost no non-project information. Vicki was also interested in having a relationship with the Thais, but she said she did not feel relaxed enough to talk about non-project topics. Also, she seemed to be intimidated by the language barrier—she asked her social American teammate to try to figure out what the Thais were saying, and when she wrote to them she tried extra hard to make the language as simple as possible. This concern about comprehension may have contributed to her not relaxing or communicating with the Thai students socially. Elaine was unique in that she had no interest in getting to know her Thai teammates online.

Comfort with technology also played a role in the establishment of friendship feelings. Elaine was the only student who did not like to communicate online. Vicki and Donna did not mind working with technology but did not feel like they were communicating with real people when they worked online. They both said they were looking forward to working with their teammates in person as opposed to over the course intranet.

Sharing: Project, selves, and consideration. The project required information sharing because it was student-directed, ambiguous, and required extensive data gathering and exchange from both student groups. The students felt atmosphere was important for relationship building. Jennifer said, “We were fairly open and willing to listen to what everyone had to say. Cause even though we had the same general goals, we had some different ideas along the way, obviously, and I think it was important that we were all open and willing to cooperate.”

Students also shared of themselves during the project. “Chit chat” was key in beginning a relationship. Jennifer said, “How’s your family and stuff, I always tried to write things like that. Or how’ve you been, how’s the weather, general questions that weren’t just, Let’s get down to business. And I think that kind of established a friendly relationship.” Doug indicated “chit chat” “made it more fun, which is important I think.” Donna states, “I think it would have been better to have more pictures and more chit-chatty stuff.” Students shared of themselves in other ways as well, such as humor. Doug used emoticons, funny comments, and funny pictures in his postings because a teammate seemed to like it. Jennifer’s Thai teammate told jokes in her postings. These students also shared information about their culture, including pictures, factual information, and personal stories. They also talked about their personal lives such as work, family, complaints, friends, stress, school, and hobbies.

Consideration was also important to the sharing factor. Students who felt a stronger connection expressed their thanks more and included more salutations and closings. Jennifer always started her online communication with a kind salutation (e.g., “Hi girls!), ended with a “Thank You” and usually “Your friend, Jen.” She also used Thai phrases frequently. Jennifer used Thai in her postings because she said, “I was trying to show them that I knew a little bit about their language cause they were writing so much in English and I didn’t want them to feel like Oh, English is all that matters.” In contrast, Donna and Elaine included few salutations, closings, and “Thank You” messages.

Support: Faculty, teammates, and technology. Support was the final component to developing online friendships, specifically through the faculty, teammates, and technology. Jennifer commented that the advice she received from faculty to “chit chat” and share pictures influenced her behavior and helped her build friendships. Both Donna and Vicki said faculty did not suggest sharing non-project information, though they would have appreciated it. However, Elaine is different in that she did receive advice to “chit chat” and share pictures online, but she was not interested in friendship and did not act on that advice.

Also important in support were the Thai teammates. As Jennifer said, “Yeah, they [Thai teammates] were really into the project, which made us want to be into the project too. ... And they were really interested in hearing about our culture as well as teaching us about theirs.” However, Donna felt that her Thai teammates were not into the project. When asked how the project was going, she responded, “We kind of struggled at first because they didn’t really respond to us that much,” and “when they did, it was just pure information.”

The support of technology also helped build relationships. Both Donna and Elaine commented that the phone conference helped them feel like their teammates were real people: “It was kind of nice to finally hear them and see that they’re actual people and not just words on a computer and a picture,” said Donna.

Thus, feelings were important to the students who felt like they were part of an online learning community. These feelings were developed through three key components: individual factors (personality/interest and comfort with technology), sharing (project, selves, and consideration), and support (from faculty, teammates, and technology).

Conclusions

This case study is significant in that it adds to our understanding of how undergraduate students experience a sense of community online, a need identified by Shea (2006). Key to the students is the feeling of friendship in these communities. The role of feelings in building relationships is one that is not often noted. However, Short, Williams, and Christie (1976) argued that feelings play a vital role in relationships. This relationship-building process is cyclical and reiterative, consistent with the findings of Postmes, Spears, and Lea (2000). As students receive more support, they share more non-project information, build more trust and perhaps feel friendship. It is worth noting that not all students want to or perhaps are ready to experience friendships in online courses, and that friendship may or may not impact learning in the course.

Social presence theory provides insight in this case study, especially as it relates to students’ personalities. The students who formed friendships with their online teammates felt their online teammates were real people, not just words on a screen. They expressed emotion and humor, shared pictures, talked about their personal lives, and demonstrated consideration of each other as people. This finding is consistent with equilibrium theory—a communicator in a non-physical environment will use other types of symbols to communicate affective messages that would normally be conveyed nonverbally (Gunawardena, 1995). These students had to take a certain risk to present themselves as real people, and not all students were comfortable taking this risk. Also, not all students were able to build relationships and work on the project simultaneously. Preece (2000) notes that speakers in distance relationships have to work harder at communicating clearly and understanding each other, and this study seems to support that finding. Also important is the interest of the students to form a relationship. One student who formed a close relationship appreciated the online communication because it allowed her to slowly develop friendships with people on the other side of the world. However, another student had no interest in becoming friends online, as she felt that friendship had to occur face-to-face. Thus, students’ personalities and interests determined how much social presence they could experience in an online course. This suggests that in addition to characteristics of the medium itself, the will of users to form relationships in spite of medium-related limitations is also important (Short, Williams, & Christie, 1976). More research is needed in this area, as well as into the role that intercultural teams play in relationship-building online.

While technology does not dictate relationship-building, it clearly does play a role. One student considered her teammates real people only after the phone conference, a medium which would likely have more social presence than the intranet. After she heard her teammates' voices her postings were more frequent and personable. The other students who did not feel friendship with their online teammates agreed that the phone conference made them more excited to see them.

A final note on relationship building is the importance of face-to-face contact. All the students said that their relationships deepened considerably after spending time together in person. This finding differs from that of Brown (2001), where not all students thought face-to-face time was necessary. However, it is consistent with Gardner (1991): "Perhaps dispersed groups can never achieve the full richness that we associate with the word community" (p. 13). More research into the importance of face-to-face contact and community building is needed.

Limitations and Implications

This exploratory study is limited by a small sample size in just one course and by issues related to backyard research. However, it does deepen our understanding of the importance undergraduate students place on the feeling of friendship, and how individual factors, sharing, and support contribute to friendship building. It is possible that other factors contributed to the building of friendship, such as reason for taking the course, course duration, previous experience with taking courses online (Shea, 2006), or personality type. A longer study with more participants might provide clarification on these issues.

As course designers and instructors, we should be striving to build online course environments that foster the development of the feelings of friendship, along with trust and group identity. Faculty support is crucial, as has been noted elsewhere (Brown, 2001), since students' motivations/interest in relationship-building is not static. We can build a variety of ways for students to feel friendship with their online teammates, for example by requiring assignments that increase social presence or by incorporating the medium with potentially higher levels of social presence (e.g., with voice or video features) at the beginning of the course as well as intermittently. Teachers can also model effective online communication (Gunawardena, 1995) and coach students on how to build relationships (e.g., through sharing pictures and non-project related information, always including salutations and closings, including "chit chat" in postings before business, including humor and/or emoticons in postings, etc.). Promoting an encouraging and risk-taking atmosphere is also essential. If students do experience communication problems, faculty should consider intervening to ensure that the relationship does not suffer due to surmountable difficulties. Students experience online communication and relationship-building very differently and should be helped individually as well. Through increased faculty support, students can be encouraged to establish closer relationships, leading to increased project participation and perhaps learning.

In summary, this research found that feelings of friendship are critical to students who felt a sense of community in the online course studied. Also important were feelings of trust and group identity. Individual learner factors, sharing, and support were essential components to the development of friendship. These factors were dynamic, as the relationship-building process is cyclical and reiterative and can be influenced. Online courses should be constructed that offer students the opportunity to form friendships with classmates. Furthermore, this study supports the need for more research into how students' personalities, cross-cultural membership, and face-to-face contact might influence online community building.

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