CHAPTER 20

VIRTUAL LITERATURE CIRCLES

A Study of Learning, Collaboration, and Synthesis in Using Collaborative Classrooms in Cyberspace

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The following study investigates social relationships and academic profitability of an e-mail literature circle. Students enrolled in similar courses at 2 different Texas universities, were assigned a Distance Learning Partner (DLP), whom they emailed throughout the semester, dialoguing about their assigned literature circle novel; and then they collaborated on creating a Web page, presenting several aspects of their novel. At the end of the course, students analyzed their experience by explaining the benefits of the DLP.

INTRODUCTION

Since the advent of the Internet, technological practices in the classroom have increased exponentially. Before many students even reach middle school, they are well versed in the ways of cyberspace, including e-mail,

discussion boards, the World Wide Web, and a myriad of other online tools. It is only logical, therefore, that classroom pedagogical practices today effectively include and integrate all that computer technology can offer. Most noticeably, computers today can diminish the physical restrictions of time and space and allow students an avenue on which they can collaborate and synthesize new ideas using e-mail and the World Wide Web (Tao & Reinking, 2000).

The heart of education, for both students and academicians alike, is based on the art of collaboration. As a best-practice technique, collaboration allows the "student" to gain better understanding of a subject while the "teacher" reinforces his or her own knowledge on the same subject. Collaborative learning also has been shown to increase motivation, enhance social skills, and increase communicative ability in students. Vygotsky (1962) viewed learning as a social-based activity. Furthermore, as Ragozzino, Resnik, Utne-O'Brien, and Weissberg (2003) pointed out in their survey of the literature, "A substantial body of research supports the notion that social and emotional variables are integral … to learning" (p. 169). Collaborative techniques nurture these variables as well as increase knowledge, producing a multitude of benefits in the classroom.

One way to increase collaboration in a classroom is to use the reading strategy of literature circles. Literature circles contribute beautifully to student collaboration because readers interact with the text and with others who have read the text. Rosenblatt's (1938/1994) transactional reader response theory explains that meaning does not reside in the text but in the minds of readers as they understand it through the lens of life experiences. "Literature conversations are the best way I know to get students excited about literature and talking on a deep and personal level" (Routman, 2000, p. 294). In literature circles, students read and talk about reading. "As we read and talk about reading, we are searching for works of value that encourage students to feel, to question, to explore human values, and to examine traditions and cultures—works that provoke them to think about how they view the world" (Holt & Bell, 2000, p. 5).

In cyberspace, collaboration holds many of the same requirements and benefits as it does in the physical world. However, Oakes (1998) pointed out that there are minimum requirements (capital) to create a successful collaborative virtual-learning environment. First, there must be sufficient social network capital possessed by those who have the skills necessary to assist creation of the learning environment. Secondly, the virtual classroom must have knowledge capital: answers to immediate questions at the very time they are needed. This does not mean, however, that answers must be provided within a short time locus of an original post, but rather that responses are not delayed past needed deadlines. Finally, virtual learning environments need community: a support from the group

involved where each member has a vested and shared psychological investment in the project (Oakes, 1998). Oakes closed by saying that, "Successful collaboration occurs most readily when each participant holds one particular part of the whole knowledge required" (Oakes, 1998, p. 38).

Human beings are social creatures, and need other human beings to learn. In fact, Wilkinson and Silliman (2000) and Huang (2000) both have demonstrated that students learn because of face-to-face verbal interaction. Many technologically shy educators avoid incorporating computer-based lessons or activities in their classroom because they believe computers are void of this necessary social aspect to learning. However, this assumption is not entirely true. Harrington (1993) showed in his study that online discussions (whether by e-mail, discussion boards, or the Web) allowed students to freely communicate with one another. Furthermore, these students also interacted more freely because of the lack of social constraints.

Using E-Mail and Discussions in Cyberspace

E-mail is one of the most basic resources available on the Internet. Since its inception in 1969 under ARPANET, hundreds of millions of e-mails have traversed cyberspace. E-mail is especially beneficial for online learning and collaboration because, as Tao and Reinking (2000) stated:

> E-mail seems to provide chances for learning literacy skills in two ways: (1) students interact socially and (2) they actively use literacy in meaningful ways. E-mail allows students to use language by getting to know new friends … and by finding out their own social roles and voices in class discussions. (p. 170)

Furthermore, e-mail motivates students who might otherwise be reluctant to participate in face-to-face interactions (Dorman, 1998; Lawrence, 2002; Tao & Reinking, 1996). This extra motivation may come from a variety of factors, but Tao and Reinking (1996) pointed out two significant factors: the ability to reflect before responding over e-mail, and a higher level of confidence that comes with writing rather than public speaking.

Online discussions also create a socially based learning environment in cyberspace. Knowlton and Knowlton (2001) defined online discussions as "exchanges of messages using electronic bulletin boards or e-mail software" (p. 41). In a study conducted in 2001, Romeo observed 12 graduate students who collaborated via discussion boards in an online classroom. While discussing literature selections, Romeo noted that students felt they

"got to know their peers much better than if they saw them weekly in an on-campus class" (p. 26).

Benefits of Online Collaboration

One of the most substantial benefits of online collaboration in virtual classrooms is the increased chance that students who are usually shy and reserved will likely participate more in e-mail discussions, thereby contributing more knowledge to a discussion at hand (Tao & Reinking, 2000). Studies have shown that students who felt intimidated in class discussions tended to contribute more and feel less withdrawn using e-mail as the main mode of communication (Beach & Lundell, 1998). E-mail, too, provides many opportunities for students to not only acquire different views of their classmates, but also to reevaluate their own views on subjects (Tao & Reinking, 2000). Sernak and Wolfe (1998) also observed this feature of e-mail discussions. One of the students in their study wrote, "We are two different people from two different places and we were able to communicate and discuss issues without even seeing one another" (p. 307).

Concerns of Virtual Collaboration

Although many students experience several benefits from working online with other students, some find the lack of physical interaction unsettling, at best. One student in Sernak and Wolfe's study wrote, "I thought it would be easy to write to a stranger about textbook topics. I guess that I am more willing to open up to a person than I am to a blank computer screen" (Sernak & Wolfe, 1998, p. 307). The lack of immediate, continuous feedback through social interaction can sometimes leave a student without the information needed to create a response or to truly understand what another student may have meant in an e-mail or discussion posting.

Additionally, with virtual collaboration, lurkers are often present. Lurkers are students who remain on the fringe of conversations and collaborations, observing and listening, but not actively participating. Most lurkers are either shy, feel inadequately educated on a given topic, or are uncomfortable expressing their thoughts in written form on e-mail lists. They enjoy reading others' posts and responses to them, but refrain from adding their own contributions (Wikipedia, 2007). In a classroom setting, lurkers may not please their teachers, as they are not actively participating in "class discussion," but learning can occur for lurkers (Nonnecke, 2000).

Research Questions

Based on this review of literature, we anticipated that students' learning would benefit from the collaboration with a distance learning partner (DLP). If that is the case, the implications for public school classroom learning would yield that teachers can assist their students' education in both technology use and in literature circle collaboration by utilizing distance learning partners. These thoughts spurred our research questions:

- How will students employ their DLP for learning, collaborating, and analyzing their literature circle novel?
- How will students collaborate with their DLPs to create a web page?
- What are the benefits/drawbacks for students who collaborate with distance learning partners?

METHODOLOGY

We studied two groups of university students and analyzed the collected data in a real-world setting (their classroom and their home—or the place they engaged in e-mail correspondence), reflecting what naturally occurred over the period of a semester. The social organization included teacher education students and their two professors—two sets of students enrolled in two separate reading courses at Texas State University-San Marcos and the University of Houston-Victoria participated in this study. There were fourteen students in the University of Houston-Victoria subject pool, composed of twelve females and two males. Fourteen students were seeking their initial teacher certification, all of whom were also seeking undergraduate degrees. There were no postbaccalaureate students in this pool, and there were no students who were already certified teachers. The ages of the University of Houston-Victoria students ranged from 24 to 50.

At Texas State University-San Marcos, there were 28 students who participated in this study. Twenty-three students were female and five were male; all of these students were either seeking postbaccalaureate certification or were graduate students in education. Twenty-five students were seeking their initial teacher certification, while three were already certified. The ages of the Texas State University-San Marcos students ranged from approximately 23 to 50.

Before beginning the research phase of this study, students in each of the two reading classes selected a book to read. All of the books offered in the course curriculum addressed some aspect of the Holocaust, and students were free to choose whichever title most interested them, from the

following titles: Han Nolan's *if i should die before I wake* (2003), Ruth Minsky Sender's *The Cage* (1997), Eleanor H. Ayer, Helen Waterford, and Alfons Heck's *Parallel Journeys* (2000), and Jane Yolen's *The Devil's Arithmetic* (2004). After all students had selected a book, they formed a literature circle group with other students in the class who chose the same title.

Once all literature circles had been formed, students were given both written and oral instructions about the requirements for the final group project. Each group reading the same book at both campuses would, using e-mail, instant messaging, file-transfer protocol (FTP), and the World Wide Web (WWW), create a Web page that presented an analysis and discussion of their selected book. The final project had several parameters, including that the webpage opened immediately, contained one primary source document, presented two or more visuals, displayed a 50-word summary of the book without divulging the ending, presented engaging activities for the viewer, listed two hyperlinks related to the theme of the book, and included a lesson plan incorporating the theme of the book that teachers could use in their classrooms.

Students were responsible for reading the book in its entirety, meeting with their local literature circle, corresponding with their distance learning partners (DLPs), and creating their final project in a timely manner. Students were also required to communicate with their literature circles via e-mail at least five times per week and also were allowed some class time to work on their group projects.

In order to monitor the progress of the literature circles and the creation of Web pages, students were required to "carbon copy" ("CC:") each professor in all e-mails sent to their corresponding literature circle in either Victoria or San Marcos. The professors took particular note of any problems, difficulties, or communication lapses that occurred in each group, and provided assistance for any group members that felt it necessary.

At the conclusion of the semester, each local literature circle, both in San Marcos and Victoria, made a presentation of their Web page to their respective classes and fielded questions regarding both the book's content and their technology project. Students were also required to reflect on their literature circle and final project experience in their final exams, although these answers were not graded in order to obtain more honest and authentic summaries of their individual experiences.

Discourse analysis was used to investigate the purpose and content of messages. Discourse analysis focuses on the intentions of the speaker and the effects of remarks on the listener (Dzuba, 1994, p. 50). We analyzed all of the e-mails that were exchanged during the semester: 419 e-mails, total. One hundred twenty-eight of those emails were sent during the reading of the literature circle novels. The other 291 emails regarded the

final project. Each message was a unit for analysis. All of the e-mail messages were analyzed for function and content. To analyze those e-mails, the two professors studied those e-mail messages and their patterns, looking for common categories of they way students used the virtual literature circles.

1. The text was read to determine the flow of conversation.
2. Chronological messages of interactive conversation were sorted according to topics.
3. The underlying proposition was summarized in a phrase or sentence.
4. A discourse topic was assigned to the first proposition introduced and subtopic to further references to the topic (Dzuba, 1994, p. 50).

Reliability was established by checking, separately, the data and organizing the students' responses into categories by finding preliminary patterns. Then, we rechecked the assignments, separately, for consistency; and finally, we analyzed the responses together, re-confirming our categories.

FINDINGS

This study focuses on the function and content of computer messages and on patterns of communication that emerge. In this section we will present our findings: the various ways the students used their distance learning partners for literature circle collaboration and for end-of-the-semester project discussion and preparation. Because the presented information is from students' e-mail messages, the direct quotations in the following sections may contain misspellings and grammatical errors.

The Students' Use of Distance Learning Partners for Literature Circle Conversations

The three key features of literature circles are choice, literature, and response (Tompkins, 2003). The students were given the opportunity to choose the novel they read, the literature was sound, and the response was rampant, in the DLP communications. Part of this responding is meeting with the rest of one's literature circle (or one's DLP) to conduct grand conversation about the book, sharing reactions, clarifying misunderstand-

ings, and making connections to their lives and to other literature (Tompkins, 2003).

Asking "Wondering" Questions About Their Literature Circle

A majority of the correspondence addressed questions that would help clarify one's understanding either of the book, of the time period, or of the human race. Eighty-one percent of the e-mail messages asked these types of "wondering" questions. Larry posed some thoughtful questions to his literature circle:

> Is it really believable that the soldiers would have gone to all the trouble of finding adequate medical care for the protagonist? While the Nazis destroyed/stole valuable that belonged to the Jews, would it seem possible that the Nazis would foster the protagonist's dream to write?

Lucy contributed the following: "Why? Why do we do this to each other? How? How can you hold on to hope in such a hopeless situation?"

Empathy/Personal Connection With Characters in Their Literature Circle Books

In literature circles, books that are likely to lead to good discussions have interesting plots, richly developed characters, rich language, and thought-provoking themes (Samway & Whang, 1996). Through these richly developed characters, one of the goals of literature circles is that students *will* connect with the characters, and experience that text-to-self connection. "Talking about connections—connections to their lives" is one type of talk used during literature circle discussions identified by Gilles (1998, p. 58). Fifty-three of the 128 e-mails (43%) dealt with this type of talk: students' developing empathy with characters in the novels or with making personal connections with characters in the novels. Of the four books read, two were fictional accounts of the Holocaust, while two were nonfictional accounts, so in some cases, the students' connections with the "characters" were actually with real-life people, not fictional characters. Several students made comments like, "I ached for the children ….," "I was SO angry at her …," "my heart was heavy …," "I got really disgusted …," "It sickened me …" showing that they had become attached to the characters in the books. Empathy, however, is somewhat deeper than merely feeling sorry for a character—instead empathy allows a student to put themselves in a character's shoes. Expressing empathy, Lisa said,

> This section was extremely heart-wrenching because it showed that she also had to come to terms with the fact that she could die at any moment, and her actions now would determine her after life. Still, I do not know if I could show love with the evil acts being performed all around me.

Salley and Ali both felt compelled to meet the author/main character of their book so they could get to know her better, by either e-mailing her or reading her other books.

Sharing Direct Quotations or Page Numbers From Literature Circle Books

During the literature circle experience, students should share significant events in the novel and the page numbers where those events can be found in order to further discussion. The students in this virtual literature circle were no different. Nearly half of the students (49%) shared at least one or more page reference with their literature circle. One student, Garrett provided the following to his literature circle, "I also found Yolen's mentioning of Israel's existence (or lack of existence, p. 82) interesting. Nice subtle history lesson there …" By sharing specific page numbers with one's literature circle, everyone in the group can respond to the same episode and provide personal opinions and ideas without the confusion of what is the topic at hand. Marie, who mentioned a page number in *every* literature circle correspondence, included the following; "I liked p. 44, when Hannah finally sees herself in the mirror and the first glimpse of herself as Chaya. The physical appearance is similar to Hannah's, but she could tell she was not Hannah anymore or in Hannah's life."

Elements of Writing in Literature Circle Books

As the students read their various Holocaust novels and participated in the literature circle, they commented on various aspects of the craft of writing. Close to one third of the students (30%) relied on clichés or euphemisms to express their thoughts and ideas in the literature circle discussion. These elements of writing were not used by the book's author, but by the students while the book was being discussed. Larry wrote, "Was that ending a miracle or what? It is somewhat bittersweet …" He included two clichés within one literature circle communication. Another student, Susan, added, "I like the idea of taking a callous teenager who thinks the world revolves around her and putting her smack dab in the middle of one of historys worst episodes."

Some students moved beyond reliance on clichés and euphemisms to make inferences and predictions. Tracey said:

> I keep thinking of clues that the author keeps giving us and the more I think the more it ties in to the grandmother being Chana. One thing that really got me thinking was when Hilary was talking about the scar on the back of the grandmother's head, than in chapter 17 after Chana had just arrived at the camp she gets hit on the head by a guard with a gun.

Another aspect of writing that several students discussed in the literature circle was to compare their Holocaust novel to movies or other pieces

of literature in which they are familiar. Wendy stated, "Attached is a copy of the movie review for "Shoah" plus a new item that I discovered that is an audio account of the Holocaust experience ..." Comparing the aspects of writing of the assigned novel with that of movies or other pieces of related literature is an important aspect of a successful literature circle. Ali shared the following, "The WHY part in the beginning of the book reminded me of Maya Angelou's *I Know Why the Caged Bird Sings*."

Comparing Events in the Literature Circle Book to Real-World Events or Current Day Issues

While sharing significant events within the novel is important, a literature circle should also find ways to connect the text to current events and modern issues. This connection indicates critical thinking regarding the novel and its contents. Several students (27%) found some relevant, modern issue to share with the other members of the group.

Kenny provided the following, "How about a view of "nazi" groups that are still active today. Here are a couple of sites. www.americannazi-party.com and www.skrewdriver.net." Again, when Lucy asked, "Why? Why do we do this to each other? How? How can you hold on to hope in such a hopeless situation?" We see that she looked for her literature circle members to answer questions she herself could not. Some of the questions posed could not be answered, but human nature longs for closure or conclusions to questions.

Further Research on Topics Related to Literature Circle Topics

In literature circles, students typically are motivated to investigate the topic about which they are reading, and sharing that information with an in-class group is relatively easy. To share that information via technology requires a little more effort, perhaps; but these students capitalized on their required use of technology and shared Web page links or actually pasted in pictures or quotations from web pages for their DLPs to experience. 17% of the emails (21 of 128) had elements of this type of sharing—further research about Hitler, WWII, Judaism, and pictures or Web sites, either simply included in their text, or pasted in from other internet sources. Some students, like Bruce and Ali, shared a wealth of knowledge in every single email message they wrote, while other students merely researched one or two topics which sparked their interest from reading their novel or from conversing with their DLP. Wendy commented on some of Bruce's research, saying:

> Bruce, thanks for reminding me that our own country (during WWII) had its own propaganda agenda. I remember renting a video put out by Looney Tunes featuring cartoons from that period and they heavily sterotyped the

Japanese and Germans. I was going to say that I didn't think that our patri-otic fervor had not reached the level of these Hitler Youth—but a lot of young American signed up and fought on foreign soil as a result of Pearl Harbor, so …

Ali related what she was reading in *The Cage* to other literature she had read, and she shared the following with her DLP:

In doing some research on one of my favorite books about the Holocaust: *Lest Innocent Blood Be Shed: The Story of the Village of Le Chambon and How Goodness Happened There* by Philip Hallie, I came across a new term. The term "righteous among the gentiles" means those who have rescued the Jewish people. [It] me re-examine *The Cage* to see if there are mentions of anyone who is a non-Jew who tried to fight for the Jews. I was gladdened that so many Jewish people risked their own lives to help each other out, but I want to know where everyone else is in this time? Think of the Gruber type people, were they brainwashed or were they always so hateful? What about those who lived near the concentration camps?

While some students conducted quite extensive research and conversa-tions about related topics, other students simply did the necessary research to answer some immediate questions. Wendy investigated "where Wittlich was—it is about 20 miles east of the Luxemburg/Germany border. This puts it on the western border of Germany." Sarah researched comas so she could prove (or disprove, as the case may be) that what the charac-ter in *if i should die before I wake* was experiencing could really happen, and Tracey thanked her for that additional research. Marjie referred to Chaim Rumkowski's speech, "Give Me Your Children," and pasted in the link (www.givemeyourchildren.com) so that her DLP, Kenny, could read the speech and better understand how powerful it was for those characters to experience. Several students explored information about Auschwitz and found various websites to share with their DLPs.

The additional research that the students shared with each other in their email correspondences enhanced their comprehension and appreci-ation of the book they were reading.

The Students' Use of Distance Learning Partners for Discussion About their Final Project

While the students used their DLPs for response to the literature circle novel, toward the end of the semester, their focus shifted to their final project—the Web page.

End-of-the-Semester Web Page

One of the three key features of literature circles is response (the other two are choice and literature) (Tompkins, 2003). Part of this responding is discussing the book, but another part of this responding is creating a project through which to share the book with the rest of the class (Tompkins, 2003). Students are always concerned with the final project after a literature circle, but these students seemed particularly concerned because they were creating the project *with* their distance learning partners. Their grade depended on not only other people in their class, but also on other people at another university—people they knew purely via email conversation. In similar research conducted by Pate-Moulton, Klages, Erickson, and Conforti, Jr. (2004), only a few students shared ideas about their final assignments with their distance partners, because their projects were created with only their in-class group. In this project, however, with a dependence on the distance partners to create the final product, 100% of the students corresponded about their final assignment—thus increasing not only their use of technology but also their topics of discussion.

Nearly 70% of the total e-mails dealt with students trying to understand and create the final end-of-semester project (the Web page). Many of the students expressed grave concern over collaborating via technology on a major project. Because of an issue with Web page "space," the students were faced with even more difficulties: the web space that the students were to use was the UH-V students' space. At the beginning of the semester, the two professors understood that both sets of students would have access to the web space—both for viewing and for editing. As it turned out, however, the Texas State students did not have any editing capabilities, so they felt a little "out of the loop" in that they were able to only suggest changes to their UH-V partners, and they had no control over whether or not those changes were made. This snafu caused even more stress, which probably resulted in even more e-mail messages. Tanya expressed her frustration and her interpretations of her DLPs' frustration in an e-mail to her professor:

> I think our DLP's are getting a little testy too. They think we have been leaving them out of the loop. I have been copying them on everything, but frankly there are more of us so I guess I can see where they might start to feel that way. Mostly we are getting anxious about not being able to view the page yet and I think that comes out as not such good vibes to them.

Despite the occasional frustration, many of the students seemed to enjoy collaboration. Lucy thanked Sarah for sending the pictures and told her they would be on the web page for viewing by tomorrow. Additionally,

the students used the correspondence to bounce ideas off of each other to make the best possible Web site. Sara wrote to her DLPs:

> What do you all think about including the poem that was in the book? I know that the Victoria group decided that it wasn't very good (poetry wise) but I think maybe we should include in because it kind of sums up the central feel of the book and also has that "survivor" theme in it. Just a suggestion.

In the end, regardless of the difficulties they encountered on the journey, all of the students were pleased with their final projects (as were their professors). E-mails filled with praise and thanks flooded inboxes! Wendy wrote, "Again, it has been a REAL learning experience for me—but I feel pleased with the results—thanks everyone!" Deborah said, "The site is beautifully done guys. Bravo everyone." Lisa shared the same sentiments, "I've enjoyed working with everyone, and hope you are as pleased with the results as I am." One group even planned to get together in person after the project to "celebrate our success!" Collaborating over a long-distance, via technology, to create a web page was definitely a challenge, but it was one that stretched the students and made them proud of themselves.

DISCUSSION/BENEFITS/DRAWBACKS

At the end of the semester, students were asked about the benefits of the DLP project: benefits to you, personally; benefits to your literature circle; benefits to your future elementary or middle school students; and benefits to you, as a teacher. To analyze the students' responses, we determined patterns of response, using discourse analysis. The two professors analyzed the students' responses, looking for commonalities in the answers to the questions about the benefits of the DLP project. Interrater reliability was established in the same manner—we analyzed the data separately, organizing the students' responses into categories by finding preliminary patterns and confirmed those patterns with each other. Then we analyzed the responses again together, reconfirming our categories.

Overall, students found the DLP project to be beneficial. Of the 44 students who participated in the project, 27 students (61%) found their experience to be positive; 3 students (6%) had a negative experience, and 1 student, Ann, simply said, "I would characterize the benefits of the Distance Learning Partner collaboration as rich in possibility, but my actual experience as of limited value." As with any collaboration project, there were some drawbacks, but the benefits seemed to far outweigh them. Deborah summarized the project efficiently when she wrote, "The Distance

Learning Partner process was a multiplicity of amazing, wondrous, and confusing factors."

Benefits

Using a Form of the DLP Project With Future Students

Almost every student (98%) said they intend to incorporate some form of a distance learning partner project with their future students. So, even if the students did not find the project personally beneficial, they could envision the benefits with their elementary or middle school students. Students commented on how they might create a project in which their students can correspond with students in another part of the country, or another part of the world, and during their collaboration, they would be forced to think deeper about their readings or their ideas and find the most articulate way to express them in writing. Working as a team is another benefit to the distance learning partner project, especially when it comes to respecting and appreciating other people's ideas and views. If preservice teachers can participate in projects that are meaningful to them, they will likely create the same or similar significant learning experiences for their students.

Different Perspectives

Part of the reason we talk to other people about books we read is to learn of their different perspectives. 65% of the students' e-mail messages mentioned that they appreciated the DLP collaboration because it allowed them to hear different perspectives on the book they were reading. The students valued the opportunities to share and express thoughts and opinions with people other than class members, sometimes sharing the same thoughts and feelings, sometimes gaining new insight and information. Respecting and learning from other people's perspectives is crucial in a classroom and in life. With experience in valuing different perspectives, students will become more adept at accepting and respecting various viewpoints. Then, they can transfer this idea to their students.

Technology Use

Even with the advance of technology in public schools and universities, some university students still feel behind the learning curve when it comes to technology projects. In this study, 65% of the students appreciated the opportunity to expand their use of technology. Some students were extremely proficient with technology—a few students even programmed computers for a living—while some students were quite challenged to even start and maintain e-mail correspondence. The general

consensus seemed to be that no matter where they currently stand in the field of technology, any exposure to technology use can be beneficial. This thought holds true for teacher candidates and for their future students as well.

Pride in Final Web Page Project

Despite the difficulty in preparing the final Web page project, 56% of the students mentioned that they were proud of their final project. Many were surprised at the good outcome, but they said that, with the DLPs collaboration in the work, research, ideas, opinions, the final Web site was far better than anything they could have done individually. The project was a challenge, but we saw that as students are pushed and faced with difficulties, when they succeed, they are pleased and proud of their work. Experiencing this pride firsthand allows preservice students to know the importance of providing experiences for their students to be challenged and successful.

Teamwork

Several students (43%) valued the teamwork/collaboration that they experienced during the DLP correspondence. They believed that the collaboration allowed them to learn more than they would have learned on their own, and they wanted their own students to experience the same types of success from working with other students.

Transformation

Several students (31%) were transformed by this experience. A transformation is a change within one's view that causes the person to have a drastically different perspective of an event. They were apprehensive at the beginning of the project, but by the end, they were positive and confident. The more transforming experiences teacher candidates have, the more likely they are to pass those experiences on to their students.

Drawbacks

As with any project, even if there are benefits, there are bound to be drawbacks. The students clearly had some issues with creating their webpage with students from another university campus, via e-mail. A majority of the students (70%) mentioned that they had some difficulties in creating the final project with their DLPs, but most students persevered through those difficulties to have a positive experience. There are limitations to online discussions and to managing a large project like this one over e-mail.

CONCLUSION

As public school children become more versed in the use of classroom computer technology, their teachers must also be well-versed, or at least willing to integrate technology into their pedagogical practices. Virtual literature circles provide the technology component for which students are prepared without requiring the classroom teacher to be a technology expert. Additionally, virtual literature circles provide all-important collaboration while motivating students, increasing their subject area knowledge, and engaging them in technology use; because literature circles meet so many needs, they should be added to teachers' pedagogy as a best practice technique.

REFERENCES

Ayer, E. H., Waterford, H., & Heck, A. (2002). Parallel journeys. New York: Aladdin Paperbacks.

Beach, R., & Lundell, D. (1998). Early adolescents' use of computer-mediated communication in writing and reading. In D. R. Reinking, M. C. McKenna, L. D. Labbo, & R. D. Kieffer (Eds.), Handbook of literacy and technology: Transformation in a post-typographic world (pp. 93-112). Mahwah, NJ: Erlbaum.

Dorman, M. (1998). Using email to enhance instruction. *The Journal of School Health*, *68*(6), 260-261.

Dzuba, E. J. (1994). *Computer-mediated communication: Faculty and student conversations during the field experience.* Unpublished master's thesis, University of Regina.

Gilles, C. (1998). Collaborative literacy strategies: "We don't need a circle to have a group." In K. G. Short & K. M. Pierce (Eds.), *Talking about books: Literature discussion groups in K-8 classrooms* (pp. 55-68). Portsmouth, NH: Heinemann.

Harrington, H. (1993). The essence of technology and the education of teachers. *Journal of Teacher Education, 44,* 5-15.

Holt, J., Bell, B.H. (2000). Good books, good talk, good readers. *Primary Voices K-6, 9*(1), 3-7.

Huang, H. (2000, July/August). Instructional technologies facilitating online courses. *Educational Technology,* 41-47.

Knowlton, D., & Knowlton, H., (2001). The context and content of online discussions: Making cyber-discussions viable for the secondary school curriculum. *American Secondary Education, 29*(4), 38-52.

Lawrence, G. (2002). The use of email as a tool to enhance second language education programs: An example from a core French classroom. *Canadian Modern Language Review, 58*(3), 465-472.

Nolan, H. (2003). *If I sould die before I wake.* New York: Harcourt.

Nonnecke, R. B. (2000). *Lurking in email-based discussion lists.* Unpublished doctoral theses, South Bank University.

Oakes, P. B. (1998). Virtual learning communities on campus. *The Delta Kappa Gamma Bulletin, 64*(2), 37-42.

Pate-Moulton, S., Klages, C., Erickson, A., Conforti, Jr., P. A. (2004). Integrating technology and pedagogy: The DLP (distance learning partner) Project investigates literature circles. *Curriculum Teaching and Dialogue, 6*(1), 25-34.

Ragozzino, K., Resnik, H., Utne-O'Brien, M., & Weissberg, R. P. (2003). Promoting academic achievement through social and emotional learning. *Educational Horizons, 81*(4), 169-171.

Romeo, L. (2001). Asynchronous environment for teaching and learning: Literacy trends and issues online. *The Delta Kappa Gamma Bulletin*, *67*(3), 24-28.

Rosenblatt, L. M. (1994). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale: Southern Illinois University Press. (Original work published 1938)

Routman, R. (2000). *Conversations: Strategies for teaching, learning, and evaluating*. Portsmouth, NH: Heinemann.

Samway, K. D., & Whang, G. (1996). *Literature study circles in a multicultural classroom*. York, ME: Stenhouse.

Sender, R. M. (1997). *The cage.* New York: Simon and Schuster.

Sernak, K. S., & Wolfe, C. S. (1998). Creating multicultural understanding and community in preservice education classes via email. *Journal of Technology and Teacher Education*, *6*(4), 303-329.

Tao, L., & Reinking, D. (1996, October 31-November 3). *What research reveals about email in education.* Paper presented at the annual meeting of the College Reading Association, Charleston, SC.

Tao, L., & Reinking, D. (2000). Issues in technology: E-mail and literacy education. *Reading and Writing Quarterly, 16*(2), 169-174.

Tompkins, G. E. (2003). *Literacy for the 21st century.* Upper Saddle River, NJ: Merrill Prentice Hall.

Vygotsky, L. S. (1962). *Thought and language* (E. Hanfmann & G. Vakar, Ed. and Trans.) New York: MIT Press.

Wikipedia. (2007). Retrieved March 1, 2007, from http://en.wikipedia.org/wiki/Lurker

Wilkinson, L. C., & Silliman, E. R. (2000). Classroom language and literacy learning. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. III, pp. 337-360). Mahwah, NJ: Erlbaum.

Yolen, J. (2000). The devil's arithmetic. New York: Viking Peguin.