

Examining the Role of Technology To Create a Safe Haven for Student Teachers

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Abstract

This research examines the use of technology to create a relationship between student teachers and preservice teachers as they navigate the union of practice and theory within the two contexts of a teacher education course and student teaching practicum. Technology was used to create a safe haven where students could explore their respective experiences through protected conversations. The study focused on the uses of electronic dialogue among students to strengthen the student educators' abilities and awareness to integrate culturally responsive pedagogy, to practice reflective teaching, and to model professionalism through mentoring. Multiple qualitative data sources were analyzed, resulting in three themes: transformation of identity, collegial relationships, and cultural responsiveness.

hen student teachers receive their first class list and are expected to lead, teach, and manage thirty students, they frequently find themselves questioning their abilities. This insecurity limits the breadth of their emerging practice. Suddenly, student teachers are overwhelmed by their new reality, and great ideas for teaching become more difficult to employ. Very often the student teacher will default to minimalist approaches to teaching when they realize that their success is dependent on their ability to get through the lesson, the day, and the semester. When student teachers find themselves in this predicament, they report that it is difficult to consider moving beyond simplistic approaches to teaching (Schwebel, Schwebel, Schwebel, & Schwebel, 2002) at the expense of effective teaching practices (e.g., culturally responsive pedagogy). So where can student teachers turn for nonjudgmental assistance, feedback on practice, and encouragement? Where can they find concerned and knowledgeable colleagues?

The purpose of this study was to examine the use of technology in creating a safe learning environment for student teachers and preservice teachers to integrate culturally responsive pedagogy, to practice reflective teaching, and to model professionalism through mentoring in two undergraduate courses at two different universities. Using data collected online, in addition to other data collected throughout the year, university partnership instructors investigated how technology can be used to link theory and practice for student teachers in the practical field and for preservice teachers in the university setting. Specifically, students' online interactions were analyzed, using qualitative and quantitative means, along with survey responses and student work examples to better understand how effectively the technology provided students with an informal place to share their experiences.

Preservice teachers need a protected channel through which to travel from student to professional. The bridges, which we as teacher educators build for our students, need to include tethers of reflective but non-judgmental support and consistent reminders of educational theory within the context of practice. Using Internet communication to create

a connection among preservice and student teachers, we employed the concept of *situated learning* (Lave & Wenger, 1991) to serve as a bridge between cognitive learning and practice.

Multiple modes of inquiry were used to investigate four research questions that consider possible links to enhance effective passage from student to professional:

- How can computer-mediated communication (CMC) be used to develop professionalism through collegial discussion and critique?
- How can technology be used to create a safe haven for integrating culturally responsive pedagogy for students?
- How can technology be used to link theory and practice for student teachers in the practical field and preservice teachers in the university setting?
- How can students who are at differing levels of study (preservice and students teachers) bridge the gap between the role of student and teacher?

Theoretical Framework

There has been great support for new models of field experiences for preservice teachers (Bullough et al., 2002; Guyton & McIntyre, 1990; Oakes, Franke, Quartz, & Rogers, 2002) and a need to better assess their field experience performances (Ambrosio, Seguin, Hogan, & Miller, 2001; Cruikshank & Metcalf, 1993). Technology provides boundless possibilities for improving the field placement experiences for student teachers and preservice teachers alike (Heflich & Putney, 2001; Lave & Wenger, 1991; Shocker-von Ditfurth & Legutke, 2002).

Field placement opportunities are critical to the success of future teachers, and there are a limited number of placement opportunities for preservice teachers (Schoorman, 2002). Because of these realities, teacher educators must develop innovative experiences that provide future teachers with the knowledge and skills needed in today's schools (Frank, 2003; Guyton & McIntyre, 1990; Oakes et al., 2002). These new approaches can be integrated with the traditional and formal field placement practices where student teachers lead a class with the cooperation of a full-time teacher and the direction from a university supervisor. In the traditional model, student teachers must work to meet the expectations of their cooperating teacher, their university supervisor, and their university professor. Yet the cooperating teacher, supervisor, and professor experience the tension of both being responsible for guiding and supporting their students' learning and being responsible for evaluating the students.

Student teachers and preservice teachers need a safe haven for reflecting on their learning experiences without thinking of or having to worry about their evaluation or grade. To create this safe haven for student teachers to reflect on their practice without the threat of sanctions or evaluation and to incorporate culturally responsive teaching (Gay, 2002), we established a partnership between student teachers and preservice teachers at two

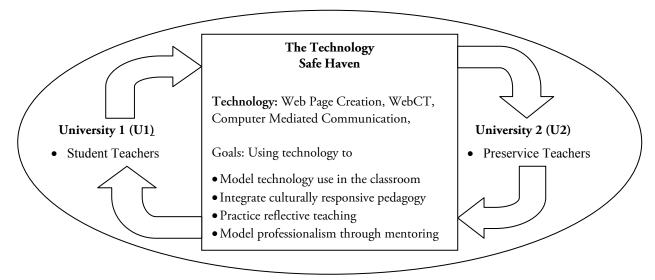


Figure 1. The Technology Safe Haven

different universities. Our partnership goals were adapted to meet the program goals at each of our host institutions. As Figure 1 suggests, our partnership used technology to provide student teachers and preservice teachers a place—WebCT—and a way—CMC—to realize their knowledge and skills. Not only did students gain knowledge and skills, they also had opportunities for engaging in practice.

Computer-mediated communication (CMC), a merger of computers and communication technology, allows preservice teachers to have virtual field experiences where few field placement opportunities are available (Heflich & Putney, 2001; Schoorman, 2002). Schoorman (2002) notes that "the lack of face-to-face contact promotes more open dialogue between student teacher and preservice teachers" (p. 357). The types of CMC include, but are not limited to, discussion boards (Wickstrom, 2003), structured e-mail and conferencing software (Van Gorp, 1997), and Web-Based Learning Environments (WBLE) such as WebCT, which are ubiquitously present in the higher education landscape. CMC has the potential for creating the communities of practice (emphasis added) that Oakes et al., (2002) describe as "a site of learning and action in which people come together around a joint enterprise" (p. 229). This joint enterprise is not only a place where students learn through improvised teaching practice, but also a place where students begin to understand that "learning must be understood with respect to a teaching practice as a whole, with its multiplicity of relations—both within the community and with the world at large" (Lave & Wenger, 1991, p. 114).

To model a community of learners, the safe haven instructors demonstrated how reflecting on students' cultural knowledge and translating this knowledge into effective instructional practice (Frank, 2004; Gay, 2003; McLoughlin, 1999) can lead to increased student outcomes. We provided students with background readings, classroom discussions, and classroom activities on cultural responsiveness. The university instructors emphasized the importance of building bridges among their students, their cultures, and the culture of their schools by having our students reflect on the richness of their own cultures and the specified knowledge they and their future students bring to the learning community. When teachers draw on students' existing knowledge and experiences, they accelerate and deepen their learning (Villegas, 1991).

Our partnership, through technology, helped to create a community of learners (Wenger, 1998) where student teachers and preservice teachers learned and worked together to bridge their theory and practice in a safe environment (Lave & Wenger, 1991). A community of practice advantages both the student teachers and the preservice teachers (Iding & Greene, 1995; McAllister & Neubert, 1995; Oakes et al., 2002). Because student teachers feel isolated and unprepared for their practicum, they are often afraid to take risks in their placement (Schwebel et al, 2002). The student teachers are practicing their teaching for the first time with real students (Lortie, 1975; Schwebel et al., 2002), and they no longer feel they can or should access their classroom instruction (Iding & Greene, 1995). At the same time, their preservice teacher counterparts anxiously await their own field placement and wonder if their mini-lessons, classroom presentations, and lesson plans will work when their time comes (Roth & Tobin, 2002). Student teachers and preservice teachers cannot help but note the hierarchical structure of the teacher preparation process. Yet participation in the safe haven helps students to see beyond hierarchies and to realize that they are part of a "community of practice" (Lave & Wenger, 1999) in which they are striving to become effective and reflective teachers.

To become effective and reflective teachers (Barnes, 1989; Brubacher et al., 1994; Grant & Sleeter, 2003; Villegas & Lucas, 2002), teacher educators need to model culturally responsive teaching (Gay, 2002) and use pedagogical approaches and practices that will help preservice teachers. Using technology to facilitate culturally responsive education can be a way of modeling cultural scaffolding because instructors must coordinate various roles to make learning work for learners in numerous cultural settings where they use multiple forms of communication, reciprocal dialogue, and meaningful collaborative work (Gay, 2002; McLoughlin, 1999: Villegas & Lucas, 2002). Technology also provides student teachers and preservice teachers a virtual or situated learning¹ environment (Lave & Wenger, 1991; Shor, 1987; Walsh, Hagler, & Fowler, 2003) in which to share their teaching philosophies and concerns about teaching (Heflich & Putney, 2001; Lacina, 2002) and to work on meaningful teaching tools (e.g., culturally responsive lesson plans, classroom management plans) for current and future teaching (Ambrosio et al., 2001; McLoughlin, 1999;

¹ A situated learning experience has four major premises guiding the development of classroom activities: (1) learning is grounded in the actions of everyday situations; (2) knowledge is acquired situationally and transfers only to similar situations; (3) learning is a result of a social processes encompassing ways of thinking, perceiving, problem solving, and interacting in addition to declarative and procedural knowledge; and (4) learning is not separated from the world of action but exists in robust, complex, social environments made up of actors, actions, and situations (Lave & Wenger, 1991; Stein, 1998).

Moore, 2002). In addition, these experiences provide teacher educators with student work samples and examples of how preservice teachers think and teach (Cruikshank & Metcalf, 1999) and casts learners in particular roles and organizes a framework for learning with access to resources (McLoughlin, 1999). By building a community of practice, students realize a "set of relations among persons, activity, and the world" (Lave & Wenger, 1999, p. 98).

McLoughlin (1999) emphasizes that there are "some tensions ... between new technology and social contexts of learning, and theorists have cautioned against the tendency towards technological determinism" (p. 233). Instructors need to be cautious about allowing students to control the electronic environment at the expense of other individuals who may not be from the same cultural group. Instructors must carefully design the scope and sequence of the learning opportunities so that all of their students can fully participate. Learning with technology occurs at the intersection of students' cultural knowledge, computer skills, and academic skills.

Methodology

This qualitative research examined the ways in which preservice teachers and student teachers at two different universities could interact in a virtual environment, known as the safe haven, to practice reflection, mentoring, and collaboration and to become more effective and more culturally responsive teachers. In the process of developing the safe haven collaboration, the university instructors created a number of activities that would be used to address the four research questions for this study. The two university instructors scheduled bi-weekly phone meetings and ongoing electronic communication to chart and guide the safe haven project. A critical element in this research was the use of compilations of archived messages from online discussions between students enrolled in two university teacher education programs in the 2003 spring semester. For the purposes of this article, the first university will be known as U1 and the second university as U2. U1 and U2 students were asked to complete lesson plans that addressed a diverse set of students, to develop classroom management strategies, and to share feedback on the safe haven through focus groups. Reliability and validity were achieved by using techniques described by Lincoln & Guba (1985). These techniques included: prolonged engagement, meaning that participants were engaged long enough (i.e., 15 weeks) to build trust with the researchers; persistent observation, which means that U1 and U2 students were studied at a level that resulted in many in-depth details about their learning experiences; triangulation through the use of multiple sources of data (i.e., electronic mail transcripts, lesson plans, classroom management plans, and focus group notes); peer debriefing through focus groups where students were able to question the methods, emerging conclusions, and motivations of the researchers; and audit trails, which are simply records kept of how naturalistic studies are conducted.

The archived messages from online discussions in WebCT provided an extensive 15-week record of preservice teacher and student teacher interactions on a number of subjects. Three lesson plans were completed in Microsoft Word and collected from each of the students during the course of the semester. Each student was required to develop a classroom management strategy that addressed the needs of a diverse group of students. Whenever possible, U1 students were paired with U2 students in the same subject content area or in a complementary subject area (i.e., science with mathematics; language arts with history). Students were asked to participate in a focus group to respond to questions about their views on the safe haven. Finally, instructors kept a regular electronic journal of observations and insights that contributed to this study's findings.

Setting and Participants

The safe haven research was conducted in two teacher education departments at two different universities. One is a small Mid-Atlantic,

Table 1: Number of Lesson Plans and Classroom Management Strategies with Percent of Cultural Responsiveness

	<u>U I </u>	<u>UZ</u>
Number of Lesson Plans Submitted	48	48
Percent Culturally Responsive Lesson Plans	.38	.60
Number Classroom Management Strategies	16	37
Percent Culturally Responsive Classroom		
Management Strategies	.63	n/a

predominately white, private university located near a large urban center, and the other at a large Western, diverse, public university located in a small urban center. The subjects in this study were student teachers and preservice teachers. Seventeen U1 student teachers were enrolled in a senior seminar course that accompanies student teaching and 37 U2 preservice teachers were enrolled in a secondary teaching methods course the semester prior to student teaching. The courses were taught during a 15-week semester (Spring 2003) and both courses used a Web-based learning environment (i.e., WebCT) to create the partnership. WebCT provided a common location for students to share e-mail discussions, lesson plans, and classroom management statements.

In order to meet the respective Institutional Review Board requirements, students were asked to sign informed consent forms so that their coursework and archived e-mails could be used in our research. All students agreed to release their materials for our research study upon the completion of the semester.

Data Analysis

A number of steps were taken in analyzing the multiple data sources (Lincoln & Guba, 1985). To assure inter-rater reliability from archived e-mail discussions taken from WebCT, the two university instructors and a graduate student separately coded e-mail transcripts to identify similar patterns. A content analysis was conducted on a compilation of archived e-mail discussions to identify emergent themes (Haney et al., 1998). For lesson plans, inter-rater reliability was achieved by having two separate reviewers use a Multicultural Lesson Plan Rubric (Ambrosio et al., 2001). (See Appendix, page TK.) Similarly, classroom management plans were analyzed for their degree of cultural responsiveness (Gay, 2000; Shade et al., 1997). Focus group notes were examined to evaluate students' attitudes, feelings, beliefs, experiences, and reactions to their participation in the partnership, and to find out if students had made cultural responsiveness part of their teaching. The instructors reviewed their electronic reflective journals of the students' participation in the safe haven to look for patterns in their electronic communications.

Results

The technology partnership provided teacher education faculty at two universities the ability to model collaboration and culturally responsive pedagogy for future teachers through the use of CMC, WebCT, and a culturally responsive curriculum. Preservice students and student teachers shared educational philosophies, lesson plans, and classroom management strategies as ways to test their professional choices in a safe environment. What made this possible? U1 students were deeply immersed in practice (i.e., student teaching) and U2 students (i.e., preservice teachers) still had their feet planted firmly in theoretical discourse.

As Table 1 shows, the percent of culturally responsive lesson plans for U1 students was lower than for U2 students. The focus group finding suggests that U1 students were initially apprehensive about creating and delivering culturally responsive lessons. For example, at the beginning of the semester, a U1 mathematics student teacher stated that "cultural responsiveness has little to do with teaching mathematics [and shouldn't be part of the training requirements]." Although lesson plans were collected

three times during the course, we found that numerous students spent additional time in the safe haven sharing their lesson plans in order to get feedback on the cultural responsiveness aspect of the lesson plan. Students were only required to communicate with their safe haven counterparts five times during the semester. Eleven U1 students and 24 U2 students contacted each other by e-mail more than the required five times and shared more than the three assigned lesson plans during the course of the semester. The following exchange centers on lesson planning.

Message no. 134 (Wednesday, October 30, 2002, 9:23 a.m.) i am teaching a lesson on the topic of kings & queens of England and the topic of colonization. My objectives include a chronological order of events, order of kings and queens, relationship between kings and queens, and important and interesting attributes. And, I will be using a timeline, chart, and family tree to get the information to the students. How do you think i should tie in cultural diversity. (U1 student).

Message no. 140 (Monday, November 4, 2002, 5:40 p.m.) Boy, that is a tough question. I think it is important to learn about the kings and queens of England, but I know a lot of students, Hispanics and Native Americans, that probably wouldn't be able to relate to English royalty. Maybe you could go ahead and deliver the lesson the way you have planned, but also add a discussion about the royalty for other ethnic groups. You could also have your students complete a family tree for their own ethnic heritage and have them include their royal leaders. (U2 student).

In this discussion, the U1 student is seeking assistance from the U2 student to try to improve the lesson plan by addressing students who might have differing views about English royalty because of their own racial identity. The U1 student who must deliver the lesson within the week uses the U2 student as a resource for teaching preparation, and the U2 student provides an answer based on the racial make up of students in her community.

Indeed, there was much concern on the part of U1 and U2 students about how differences from their students might affect their effectiveness in the classroom. In addition, we found that the final lesson plans showed the greatest degree of cultural responsiveness (i.e., highest scores on a multicultural rubric). Sixty-three percent of U1 students produced classroom management plans that were responsive to students' culture.

The focus group discussions with student teachers reported that they had become much more aware of student differences in the classroom but were still apprehensive about teaching about culture, especially for students teaching mathematics and science. At the same time they were concerned that, as one U1 student stated, "although I know about differentiating instruction for my students and the importance of cultural differences I might not be able to pull it off when it comes to teaching." Indeed at the end of the semester, the student teachers were quite pleased with their teaching growth in such a short time, but they were expectedly anxious about the reality of teaching and uneasy about teaching students that were different from themselves. Nevertheless, the student teachers had changed considerably in their teaching views, and had become more open to working with diverse students than they were at the beginning of their journey through the safe haven. For example, in the focus group discussions, students described how their participation in the safe haven had forced them to address cultural responsiveness in their teaching. One U1 student stated that, "at the beginning of the semester, I thought that all students should be expected to learn at the same level, but after teaching even just a short while, I realize that basically, a teacher should be aware of the culture, language, and socio-economic differences within the classroom. All of these things can play a factor in a student's background knowledge and, in some cases, a student's ability to relate to new subject material." Another U2 student described the safe haven as "a quick way to get help and feedback from other students who have school experiences that are much different than my own." Students' desire to take up culturally responsive teaching practices was also seen in their lesson planning. At the beginning of the semester, the students' lesson plans did not include much in the way of cultural responsiveness, yet by the end of the semester, students' lesson plans *all* included components that addressed cultural and physical differences. These components included culturally responsive learning objectives, materials, instructional methods, and assessment strategies.

The safe haven led to thoughtful, reflective, and honest discussions about how individuals and learning communities address culturally responsive issues in schools and demonstrates how professionalism in the form of peer collaboration can be realized.

MESSAGE no. 152 (Wednesday, November 6, 2002, 8:56 a.m.) I am hoping that you can share some experiences you have had in the classroom... specifically your approach to multicultural education and student reactions to diverse learning experiences. (U2 student).

MESSAGE no. 164 (Wednesday, November 13, 2002, 5:40 p.m.) ...the Honors classes are currently reading "I Know Why the Caged Bird Sings" and a parent came storming into school very upset. Of course, the parent was complaining about the rape incident in the autobiography. However, while she is screaming, she asked, "why aren't the students reading dead, white males?" Hmm, maybe because we're trying to give our students insight into the reality in which they live? Anyway, the parent took primarily a "pornography" stance so an allowance was made and the student is now reading "A Separate Peace" by John Knowles - - he's white and he died last year. So far with the exception of the one student – there have been good reactions to multicultural literature and I feel confident that it will continue (U1 Student).

In this exchange, the U1 student teacher describes an incident between a parent and the cooperating teacher about the appropriateness of Maya Angelou's "I Know Why the Caged Bird Sings," and in her description she reveals her support for a diverse curriculum for her students and also talks about the "reality of the world" in which her students live. The U1 student's somewhat sarcastic response about the concerned parent's request demonstrates how the safe haven allows students to share their innermost thoughts about their teaching experiences without worrying about the reactions of their cooperating teacher, university supervisor, or university professor.

By sharing classroom management strategies, students in both university settings considered how they might address classroom management issues, including sleeping students, fighting students, talkative students, laughing students, and late-arriving students, to name a few. As part of a formal lesson, students at U1 were asked to develop and to share with U2 students their classroom management challenges during their sixth week of the student teaching placement. In one exchange (i.e., messages no. 75, 138, & 157) highlighting the informal nature of the safe haven, a U1 student shared his approach for dealing with the sleeping student and his U2 counterpart provided thoughtful feedback.

MESSAGE no. 75 (posted on Wednesday, October 30, 2002 – 5:19 p.m.) Because there is an issue with

schools beginning to early in the morning, I have found that my children enjoy their sleep. I have found that the best methods to keep them awake are varied and different. One thing I do is to ask the student next to them to nudge the sleeper or actually do it myself. I have also tried to be extremely sarcastic (e.g., ask if they want a mint on their pillow while they sleep), which embarrasses them, to keep them awake. Finally, another method is to make them stand up while class is going on. If they fall asleep while they are standing up, the rest of the class will get a laugh as they fall down. (U1 student)

MESSAGE no. 138 (reply to Message no. 75 - posted on Wednesday, November 6, 2002, 8:32 a.m.) Hi, I read your comments about your students falling asleep in class. I thought it was funny ...what you did and said to your students. I just have one question though. In some of my classes here at U2 we are taught not to put students on the spot and embarrass them in front of the whole class -- especially students from different cultures. It makes them feel uncomfortable and more likely to not enjoy being in school. Do you think it's necessary to embarrass students to make them stay awake? (U2 student).

MESSAGE no. 157 (reply to message no. 138 posted on Wednesday, November 6, 2002, 5:06 p.m.) Well, I agree that you really should not always embarrass your students – especially students that are different than you are. You have to understand that the school I am in is an all-boys school and it is parochial. Obviously the teacher must have to watch what they say and do. Thanks. (U1 student).

Not only did the U2 student remind the U1 student about more appropriate classroom management techniques for dealing with sleeping students, she also introduced issues of differences between the students and the student teacher that were important to consider in any approach to dealing with sleeping students. By introducing "students from different cultures," the U2 student also reminded the U1 student teacher that culture is an important factor in considering approaches to classroom management and discipline. The technology, CMC in this case, allowed the two students to discuss the issues of culture and classroom management at the most convenient time for both of them in a safe and non-threatening environment.

In addition to sleeping in the classroom, the U1 and U2 students discussed other classroom misbehaviors, including spitting, arguing, and fighting.

MESSAGE no. 76 (Wednesday, October 31, 2002, 5:19 p.m.) I went over to Fred and asked him if he spit on Johnny. He denied it. I communicated the fact that spitting is unacceptable and explained the amount of work we had for that day. Fred sat quietly the rest of the period, and Johnny remained on-task as well. (U1 student).

MESSAGE no. 77 (Wednesday, November 6, 8:45 a.m.) Dear Student Teacher it sounds like you handled the spitting incident in the best manner possible. Maybe you should remind the student of the classroom and school rules relating to spitting and fighting and the consequences for such infractions. Do you have your rules posted on the wall? (U2 student)

MESSAGE no. 79 (Wednesday, November 6, 2002, 5:46 p.m.) Thanks for the suggestion about posting the rules, I'll talk with my coop about whether it would be okay to place rules on the wall. (U1 student).

In this exchange, the two students discussed how the conflict was resolved and also introduced solutions for dealing with this kind of misbehavior. This example, however, also provides an indication of the limited role that the student teacher can have in their placement (e.g., U1 student must contact their coop). The U2 student assumption that the U1 student could simply place the rules on the wall did not consider the student teacher's limited role.

In addition to practical feedback on lesson plans and classroom management strategies, the safe haven also provided students at U1 and U2 with a forum to talk about issues related to student teaching.

MESSAGE no. 145 (Wednesday, November 6, 2002, 8:38 a.m. I am excited about becoming a high school math teacher, and finally having a classroom of my own. Sometimes, however, the prospect of it seems daunting.

How did you prepare for your first year of student teaching, and were you nervous, scared, etc.? I have had some experience in high school and middle school math classrooms, but never for the first week of classes. (U2 student)

MESSAGE no. 164 (Wednesday, November 13, 2002, 5:24 p.m.) I can totally sympathize with your nervousness. I think what really helped me get over my nervousness was visiting my placement school last spring and meeting the teacher and finding out about what I would be doing. Then, my cooperating teacher had me come in to school on the in-service days before school started so I really was able to get comfortable with the school and meet a great deal of the faculty before school actually started. It took a lot of the first day jitters away. ...It will get easier, eventually, but get as much sleep as you can. It will make the stress of a new beginning a lot easier. (U1 student)

Although much of the information that these two students shared is often provided in student teacher materials (i.e., student teacher handbooks) and also covered in pre-student teacher orientation meetings, there is a sense of openness between the two students that is made possible by the technological safe haven. In addition, there is a sense of authenticity in the U1 student teacher's response about what worked for her and some no-nonsense advice about what the U2 student should do to prepare for student teaching.

Discussion

The students at the two participating universities used e-mail and WebCT to learn together to become better teachers. In the technology safe haven, they provided each other with critical feedback on each others' lesson plans and classroom management strategies in a safe, Web-based environment. For example, in a focus group session, a U1 student said that "because we are now student teaching we have the ability to teach from our lesson plans and then discuss them with other students that have yet to student teach without thinking about how we will be graded." One U2 student expressing enthusiasm about the technology partnership commented "when I evaluate a student teacher lesson plan I feel more like a professional." The U1 students became, in effect, student or peer mentors for the U2 students. The partnership's lesson planning process allowed both

sets of students to learn collaboratively. The use of technology to view each other's lesson plans, to provide feedback, and to communicate became an essential component of their learning experiences. Students got firsthand experience in working together to improve the learning process for children. The instructors shared in planning and instruction during two critical stages of learning before the start of their professional careers. In addition, students shared their classroom management strategies to see how the strategies might work in the actual live classroom.

Our partnership used technology to facilitate instruction between two education programs that are working to increase our students' understanding of culturally responsive pedagogy, reflective teaching, and mentoring. In our research, we identified three themes that emerged from our investigation of the safe haven's community of learners. First, we found that preservice teachers and student teachers alike had experienced a *transformation of identity*. A second theme, *collegial relationships*, developed in the form of informal and formal collaboration. The third theme, *cultural responsiveness*, was identified as students began to see the value of recognizing and dealing with cultural influences on the design and implementation of the curriculum, in online interactions, and in schools. The following is a description of the identified themes and their intersection with our four research questions.

Transformation of Identities

When we began this project, we were interested in using technology as a communication tool for connecting preservice and student teachers within a situated learning context. This first theme demonstrates how technology can be used for our students in the practical field and in the university setting. It also shows how CMC can be used to develop collegial discussion and critique. Providing a virtual environment for discussing real educational issues allowed students to move in and out of roles. Rather than serving simply as a bridge from student to teacher or from theory to practice, the virtual conversations served as a socially constructed organic environment where participants could draw upon knowledge and/or experience and respond as needed. Identity was negotiated rather than changed from one pole (student) to another (teacher). Participant identity was mutually constituted (Lave & Wenger, p. 33) in relation with what was being discussed.

The computer-mediated communication (CMC) allowed for "legitimate peripheral participation^{2"} (Lave & Wenger, 1991, p. 34) that permits identities to evolve. Within the safe haven, the student was no longer relegated to restricted identities such as novice, apprentice, student, or pseudo authority as student teacher. Within the safe haven, the student was free to experience a broad spectrum of roles and identities: giver, receiver, sufferer, student, teacher, professional colleague, and the like. The safe haven became a social community that could support many possibilities for creating meanings and assuming multiple identities.

Collegial Relationships—Informal and Formal Collaboration

A verifiable theme in this study was that students using technology became collegial and demonstrated a great desire to collaborate and to create a situated learning community (Lave, 1991). This theme shows how the safe haven provided students with numerous opportunities to develop collegial discussion and critique as one approach for bridging the gap between the role of student and the role of teacher. Over the course of the semester, U1 and U2 students became resources for one another and learned about the importance of developing collaborative and mentor relationships to improve their current and future teaching. Collaborations among the two sets of students and their instructors brought a range of expertise and strengths available in the community of learners. Such

collaborations in turn helped to engage diverse students' strengths and improve their opportunities to learn (Kornhaber, Fierros, & Veenema, 2004). These collaborations made possible by CMC helped to develop professionalism through collegial discussion and critique.

Cultural Responsiveness

The students experienced a variety of activities and interactions during the 15-week semester that were designed to help them understand the importance of culture and diversity in their present and future school experiences. This third theme illustrates how technology can be used to build culturally responsive pedagogy. By providing, as McLoughlin (1999) describes, "students' opportunities to learn through interaction with materials that reflect multiple cultural values and perspectives, including multiple ways of learning and teaching, and promoting equity of learning outcomes by combining mainstream and non-mainstream cultural interests" (p. 235) our students gained valuable experiences that helped to prepare them for their future teaching.

Reflection on lesson planning was one of the safe haven activities where students needed to address culture. The use of Ambrosio, Seguin, Hogan, and Miller's (2001) multicultural lesson plan rubric helped students to develop lessons that were culturally responsive (Gay, 2003; Grant & Sleeter, 2003). As the Appendix (page TK) shows, the rubric provided general, but easy-to-follow, expectations for each lesson with a rubric style that is consistent with other effective assessment scoring guides. Many of the students' lesson plans demonstrated a move from examining isolated facts and rote learning to a more cooperative learning approach that included analyses in their specific content areas and also included culturally responsive themes.

In addition to working on culturally responsive lesson plans, U1 students began to experiment with using culturally responsive practice in their student teaching placements. U1 students shared numerous postings that documented the classroom activities they assigned to address racial differences in their own classrooms. For example, one high school student's response to a "diversity" assignment focused on the relationship between minority culture and environment. One U1 student transcribed their high school student's written assignment into the safe haven. The high school student wrote,

When I lived in Philadelphia, I was not a minority. Then again, I was too young to really realize and take that into account being Spanish and looking for other Spanish students. Once I moved and went to a new high school, I was the minority, I have to admit. I am the only Dominican in my high school. There are two or three other Hispanics in the whole school and they weren't, you know, from the Dominican Republic, but we can relate to each other because we were Spanish and there's commonality there but it wasn't the same (U1 student's high school student).

The U1 student shared that he could "really see how the school environment in which students are educated has a direct effect on their identity and, in many ways, determined whether or not they felt like a minority." The U1 student went on to state that "students having to think about their identity and their susceptibility to discrimination" was something that he had never experienced (Focus Group Discussion, 5/2/03). Moreover, the U1 student teacher demonstrated a way to integrate culturally responsive pedagogy into his own teaching.

² Legitimate Peripheral Participation (LPP) provides learners realistic opportunities to participate in communities of practitioners, moving toward full participation in the sociocultural practices of a community. LPP provides a way for learners to speak about the crucial relations between "newcomers" and "old-timers" and about their activities, identities, artifacts, knowledge, and practice (Lave & Wenger, 1991).

The safe haven partnership served to continue an ongoing discussion in our schools of education on the use of technology. Technology became a tool for enhancing the student teaching experience. By providing a safe haven in which to express and discuss student teacher field placement experiences, technology allowed our students from distant locations to collaborate on educational projects that led to a transformation of their professional identities, and helped to give our students a forum for discussing the importance of a culturally responsive curricula.

Future Directions

We have found that the success of the safe haven for the instructors is dependent on critical and timely collaboration during the summer months before the fall semester begins in addition to ongoing discussion and planning during the fall and spring semesters. During our planning phase, we review what worked during the previous year and we also modify our objectives for the coming year. The collaboration in the safe haven provides the university instructors a way to strategize about how to implement culturally responsive curriculum for students through the use of technology. For example, in the coming semester, our safe haven students will share their educational philosophies at the beginning of the semester so that we study the degree to which the values and beliefs expressed in their written philosophies are connected to their advice, actions, and school work.

Much of the success of the safe haven work has relied on the university instructors' ability to change their curriculum as their host teacher education programs evolve. For example, the U2 students (i.e., preservice teachers) began a field experience partnership with a high school in the spring 2005 semester. Their field experience will be limited to five hours a week and the content will still be primarily theoretical. How might the added field experience affect the U2 students' communication with the U1 student teachers in terms of collegial relationships, modulated identity, and culturally responsive teaching?

We would like to further investigate the Legitimate Peripheral Participation (LPP) experience provided by the safe haven computer-moderated communication. How does the ability to negotiate identity related to the circumstantial needs of the learning situation serve to integrate theory and practice? It appears that there is a seed of empowerment found in this freedom to apply the necessary identity that is required by the educational circumstance. However, does the application of varied identity affect the ability to integrate theory with practice? We will collaborate through technology to try to find out.

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References

Ambrosio, A., Seguin C., Hogan, E., & Miller, M. (2001). Assessing performance-based outcomes of multicultural lesson plans: A component within a comprehensive teacher education assessment design. *Multicultural Perspectives*, *3*(1), 15–22.

Barnes, H. (1989). Structuring knowledge for beginning teaching. In M. C. Reynolds (Ed.), *Knowledge base for the beginning teacher* (pp. 13–22). Oxford: Pergamon Press.

Bullough, R., Young, J., Erickson, L., Birrell, J., Clark, D., Egan, M., et al., (2002). Rethinking field experience: Partnership teaching versus single-placement teaching. *Journal of Teacher Education*, *53*(1), 68–80.

Brubacher, J., Case, C., & Reagan, T. (1994). *Becoming a reflective educator.* Los Angeles, CA: Corwin Press.

Cruikshank, D. R. & Metcalf, K. K. (1993). Improving preservice teacher assessment through on-campus laboratory experiences. *Theory Into Practice* 33(2). 85–92.

Frank, A. M. (2003). Integrating computer mediated communication into a pedagogoical education course: Increasing opportunity for reflection. *Journal of Computing in Teacher Education 20*(2), 81–89.

Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(2), 106–116.

Gay, G. (Ed.) (2003). *Becoming multicultural educators*. New York: Jossey-Bass Publishing.

Grant, C., & Sleeter, C. (2003). Turning on learning: Five approaches for multicultural teaching places for race, class, gender, and disability. Upper Saddle River, NJ: Merrill Prentice Hall.

Guyton, E. & McIntyre, D. (1990). Student teaching and school experiences. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 514–534). New York, NY: Macmillan.

Haney, W., Russell, M., Gulek, C., & Fierros, E. (1998). Drawing on education: using student reflection surveys and drawings to promote middle school improvement. *Schools in the Middle*, *7*(3), 38–43.

Heflich D., & Putney, L. (2001). Intimacy and reflection: online conversation in a practicum seminar. *Journal of Computing in Teacher Education*. 17(3). 10–17.

Iding, M., & Greene, B. (1995). Peer writing commentary for preservice teachers. *Journal of Professional Studies*, 2(2), 66–74.

Kornhaber, M. L., Fierros, E. G., & Veenema, S. (2004). *Multiple intelligences: Best practices from research and practice.* Needham Heights, MA: Allyn & Bacon Publishing.

Lacina, J. (2002). Conversing online: Preservice teachers examine stereotypes in education. *Journal of Computing in Teacher Education*, 18(3), 95–101.

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge, England: Cambridge University Press.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. New York: Sage.

Lortie, D. (1975). *Schoolteacher: A sociological study.* Chicago, IL: University of Chicago Press.

McAllister, E., & Neubert, G. (1995). Peer coaching in preservice education. *Teacher Education Quarterly*, 20(4), 77–84.

McLoughlin, C. (1999). Culturally responsive technology use: Developing an online community of learners. *British Journal of Educational Technology* 30(3), 231–243.

Moore, M. (2002). What does research say about the learners using computer-mediated communication in distance learning? *The American Journal of Distance Education*, 16(2), 61–64.

Oakes, J., Franke, M., Quartz, K., & Rogers, J. (2002). Research for high-quality urban teaching. *Journal of Teacher Education*, 53(3), 228–234.

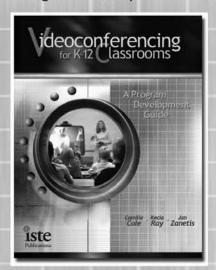
Research instruments. (2004). Retrieved On September 18, 2004 from http://www.coe.ohio-state.edu/ahoy/researchinstruments. htm#short.

Roth, W., & Tobin, K. (2002). Redesigning an "urban" teacher education program: An activity theory perspective. *Mind, culture, and activity, 9*(2), 108–131.

Schoorman, D. (2002). Increasing critical multicultural understanding via technology. *Journal of Teacher Education*, *53*(4), 356–369.

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Schwebel, S., Schwebel, D., Schwebel, B., & Schwebel, C. (2002). The student teacher handbook. Mahwah, NJ: Lawrence Erlbaum.

Shade, B., Kelly, C., & Oberg, M. (1997). Creating culturally responsive classrooms. Washington, DC: American Psychological

Shocker-von Ditfurth, M., & Legutke, M. (2002). Visions of what is possible in teacher education—or lost in its complexity? ELT Journal, 56(2), 162-171.

Shor, I. (1987). Critical teaching and everyday life. Chicago, IL: University of Chicago Press.

Stein, D. (1998) Situated learning in adult education. Eric Digest - Ed418250, Washington, DC: Office of Educational Research And Improvement.

Van Gorp, M. (1997). Classnet: A potential computer mediated communications learning tool in preservice teacher education? Unpublished dissertation. Ames, IA: Iowa State University.

Villegas, A. M. (1991). Culturally responsive pedagogy for the 1990s and beyond. Washington, DC: ERIC Clearinghouse on Teacher Education.

Villegas, A. M., & Lucas, T. (2002). Educating culturally responsive teachers: A coherent approach. Albany, NY: State University of New York Press.

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. Cambridge, UK: Cambridge University Press.

Walsh, J., Hagler, R., & Fowler, R. (2003). Technology integration using clinical experiences in the preparation of preservice teachers. Journal of Computing in Teacher Education, 19(4), 119-124.

Wickstrom, C. (2003). A "funny" thing happened on the way to the forum: a teacher educator uses a Web-based discussion board to promote reflection, encourage engagement, and to develop collegiality in preservice teachers. Journal of Adolescent & Adult Literacy, 46(5), 414–424.

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Appendix: Multicultural Lesson Plan Rubric

	Incomplete (1)	Unsatisfactory (2)	Developing (3)	Proficient (4)
OBJECTIVES	Absent or w/o MC focus (e.g. animals & what country they came from)or is absent MC focus not actively involving the students - Below knowledge level (i.e. no knowledge of facts) - Too General - Developmental Appropriateness. No age level indicated.	MC focus present but not of primary importance or trivial (food day, making African beads) MC focus does not actively involve stud ents Knowledge/ factual level - Stereotype &bias in objective content - Age level minimally appropriate.	MC focus on central part of lesson. Objective involves factual info about culture/s, but not on human interaction or understanding - MC focus students at semipassive level (i.e. performance w/o reflection) Knowledge or comprehension level objectives (i.e. students asked to do more than regurgitate facts; knowledge and activity). - No stereotypes or bias - Lesson appropriate for level.	MC focus central; objective centers on human interaction and/or understanding MC focus actively involves student role playing, coop learning, cooperative games, decision-making - Above knowledge & comprehension level (e.g. analysis, synthesis, evaluation.) Efforts to overcome or counteract stereotype Matches age level & includes age-level adaptations.
MECHANICS	Incomplete; missing one of the following: Objective Content Procedure Evaluation/Assessment Check for Understanding	- No match between objective, activities, and assessment. - Assessment cursory, topical, or not specific - Assessment on understanding of facts. Student does not search meaning. - Only some students are assessed.	- Assessment matches objectives & activities only partially (e.g. plan is on differences, assessment is on identifying skin color) - Assessment cursory, topical, not specific enough - Assessment on understanding facts/figures. Student does not search for individual meaning of info/lesson - Assessment uses 1 method only - although everyone is assessed, they must respond in same way.	- Clear match between objectives, activities and assessments - Involves MCD comprehensive assessment - Depth of understanding (i.e. meaning beyond facts); (e.g. has student explain meaning) — Appropriate to student learning styles (i.e. multiple intelligences)
RATIONALE	- Expresses apathy for differences (no mention of diversity)	-Indifferences or unconcern for diversity (recognizing differences, but minimizing importance).	-Reflects recognition, acceptance of differencesSome reflection on perspectives.	-Reflects respect and affirmation of individual differencesSkills taught which can be used in interactions with fellow students and outside the classroom.
INCLUSIVE	-No adaptation apparent for differing learning stylesLesson content examined in one manner/activityOne form of student achievement expectedLearning assistance is inappropriate, unreasonable, non-existent.	-One adaptation apparent for differing learning stylesLesson content examined in one manner/activityOne form of achievement expectedOne mode of learning assistance provided.	-2+ adaptations to support more than one learning styleUse of different ways to examine subject2 forms of student achievement expected -Uses more than 1 differing modes of learning assistance.	-Many different adaptations for learning styles of allDifferent ways used to examine styleStudents are encouraged to achieve in different waysLearning assistance available in different formats appropriate for class needs.

Source: Ambrosio, Seguin, Hogan, & Miller (2001).

http://www.iste.org/jcte