

A Freirian Framework for Technology-Based Virtual Field Experiences

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During the past three decades the pressures to attend to multicultural issues in teacher education programs have been increasing (Gay, 2000). The origins of these demands can be found in rapidly changing demographics and corresponding efforts by students, business, and government to have their needs met in an increasingly diverse and global society (Giroux, 1997). Although the response of teacher education programs has varied, the most common has been the creation of a core course in multicultural education for preservice teachers. Such a course, however, fails to convince the majority of preservice teachers of the importance of multiculturalism, even as the literature on multiculturalism has become more complex and responsive since its inception in the 1960s (Banks, 1996; Sleeter, 1996; Takaki, 1993; Zinn, 1995). For some white preservice teachers, this lack of understanding is linked to a belief that they will teach in communities with similar demographics to those in which they grew up and that they, therefore, have little need for exposure to teaching in diverse settings (Yeo, 1999).

Preservice teachers often lack an understanding that schools where they begin their careers can undergo rapid demographic changes in relatively short periods of time (Glazer, 1997; Kincheloe, Slattery, & Steinberg, 1999). This article begins with the proposition that preservice teachers need to be aware of the importance of changing demographics and multicultural educational theories to teaching and learning; furthermore, they need to have experiences observing and instructing in diverse settings.

In addition to pressure from constituents to address multiculturalism, accreditation agencies have also begun to emphasize diversity and, in particular, the importance of observational and instructional experience in diverse settings, as well as knowledge of multicultural theories. The National Council for the Accreditation of Teacher Education (NCATE, 2001) mandates evidence that preservice teachers have successfully instructed diverse student learners. Similarly, the Teacher Education Accreditation Council (TEAC, 2001) requires evidence that degree candidates understand the implications of confirmed multicultural scholarship for educational practice.

Increased emphasis on demonstration of multicultural competencies through documented observation and instruction in diverse settings creates new challenges for teacher education programs in predominantly white or rural settings. They are faced with adapting their curriculum in ways that build a repertoire of skills and abilities beyond simple exposure to multicultural education theories. One method of addressing this push for multicultural competencies has been to revise the curriculum in preservice education courses to offer experiences in observation and instruction in diverse settings through interactive field experiences. This article describes a Freirian curricular and pedagogical approach that infuses interactive field experiences into beginning teacher education program courses through two-way video conferencing. The virtual interactive field experience described herein was developed by two faculty members to provide preservice teachers with practical experience observing and instructing in diverse settings while enrolled in a teacher education program in a predominately white and rural area.

Description of Distance Field Experience

Over the past 4 years two faculty members, supported in part by a Purdue Program for Preparing Tomorrow's Teachers to Use Technology (P3T3) grant,¹ developed and refined various approaches to the use of Internet-based videoconferencing as a way to facilitate interactive field experiences in diverse settings. Over the course of these eight semesters, faculty members described their experiences in meetings, reports, and articles (Phillion, 2001; Phillion, Johnson, & Lehman, 2003/4). An analysis of their discourse resulted in the identification of four challenges inherent in the use of virtual field experiences to develop multicultural competencies:

1. To encourage resistant preservice teachers to make some level of investment in the tenets of multiculturalism.
2. To persuade preservice teachers to make significant personal commitment to the students from the host school.
3. To encourage preservice teachers to develop reciprocal relationships that involve an exchange of knowledge and resources with students, teachers, and administrators.
4. To provide sufficient opportunities to develop critical awareness of the economic, political, and social forces that shape the context in which schooling takes place.

The two faculty members involved in the project, committed to improve pedagogical and curricular approaches each semester, were motivated by their belief that virtual field experiences could provide the practical insights necessary for preparing preservice teachers for instruction in diverse settings, particularly for teacher education programs located in predominantly white and rural settings.

What follows is a description of The Diversity and Technology Project, a Freirian approach to virtual field experiences cultivated through ongoing relationships with teachers working in an inner city elementary school, populated by students of low socioeconomic status, in East Chicago, Indiana. The project began in 2000 and was conducted during both academic semesters for 4 years. The initial involvement was a portion of one course (11 students) made up of volunteers who agreed to participate in the pilot phase of the project. During the second semester of the same academic year, one full class of 18 students participated. In the 2nd and 3rd year, two classes of between 18 and 20 students engaged in the technology experience each semester.

In the 4th year, there were two classes during the fall and spring semester, each with 25 students. Three teachers at the elementary school were involved over the life of the project. Two teachers participated on a regular basis, since they felt it was beneficial to their students; one withdrew after two semesters because of the time commitment involved in participating in the project. Each semester these teachers taught about 20 elementary students. Many of these students had the technology experience both semesters. In total, more than 100 elementary school students participated in the project.

The semester's activities started with a letter and a journey to an inner city school followed by a weekly videoconference and related activities.

Letter Writing

In an effort to build stronger rapport, faculty members worked with host teachers to pair each preservice teacher with a host student to develop a mentoring relationship that would sustain the interest of both parties throughout the virtual field experiences. For the first virtual field experience assignment, preservice teachers wrote letters to their mentees that addressed the following five topics: an introduction by preservice teachers, including professional and personal interests; memories of their own experiences as students at the mentee's grade level; the reason for the visit to the host school; and a question for mentees that would be answered during the site visit. Along with the letters preservice teachers enclosed their photographs. All the letters were then sent prior to the visit with the host school.

Site Visit

During the beginning of each semester of the virtual interactive field experiences, preservice student teachers engaged in a full-day visit to the host school. One morning during the first 2 weeks of classes, preservice teachers gathered on a university bus early in the morning and began the trek to East Chicago from rural north-central Indiana. Designed around what Susan Edgerton (1996) termed rereading practices—an approach that involves moving beyond the activities of the classroom to study how social, political, and economic dimensions shape the individual student's experience of education—the exploration of multiculturalism began the moment the bus pulled away from the university. Their first assignment involved documenting in a journal their observations of the changing landscape as they traveled through the state and into the socioeconomically distressed area of northeast Indiana. Students were asked to respond to the following questions: What does it seem people do for a living in the parts of the state you observed? Do you notice any differences in the upkeep of the public infrastructure (roads, buildings, offices)? How do you imagine people provide for themselves in terms of food, shelter, and clothing in the rural, suburban, and urban areas that you observed?

The faculty member in charge emphasized that during the journal writing process students were to engage in "bracketing," the process whereby they attempt to put aside their assumptions of the world and engage in deeper explanations of the significance of what they observe in their own words (as in Van Manen, 1990). The aim of the journal writing was to encourage preservice teachers to position their perceptions, histories, and experiences within broader multicultural contexts. By the time the students arrived at the host school, they had lengthy documentation of their observations of the differences and similarities between the university community and the community they were about to enter once they got off the bus.

Once the preservice teachers entered the school, they lined up outside the entrance to the classroom and waited while host students retrieved their letters and photographs from their desks. Once the letter and photo were secured, the host teacher instructed students to locate their mentors and bring them into the classroom. One by one the host students entered the hallway, often looking back and forth between the picture and the line of preservice teachers against the wall, until a match was made. Eventually, host students located their mentors and guided them into the classroom to a seat positioned next to their own. The preservice teachers started their dialogues by referring to the question they asked at the end of their letters. The preservice teachers and host students were given time to talk informally in order to develop their relationships.

After the preservice teachers had some time to converse with the students, the host teacher again took control of the classroom, and at that time the preservice teachers were asked to begin the second assignment (after the journals), or the observation portion of the site visit, by the faculty member in charge. The preservice teachers moved to a group of chairs in the corner of the room and began to observe the host teacher as she carried out her lessons for the day.

Led by the faculty member, the preservice teachers were asked to observe closely key aspects of the classroom, including classroom management, the organization of lessons, pedagogical devices, and the use of both Spanish and English instruction. While the teacher continued her lessons, the faculty member and preservice teachers took notes to provide a context for later discussions aimed at better understanding curricular and pedagogical strategies. In this second assignment, preservice teachers addressed the following questions: Do the students behave in ways different from or similar to the ways in which the students behave at the other field experience in which you are currently involved? (Preservice teachers involved in virtual field experiences were also a part of Block One where they engaged in a traditional field experience in the surrounding community.) How did the students react to the concurrent use of Spanish and English? How does the teacher maintain control over the classroom while allowing for creative expression from students?

Subsequent to the host teacher's instruction from the front of the classroom, the observation portion of the site visit ended, and the preservice teachers joined their mentees and assisted them with their individual assignments. Through this experience the preservice teachers had an opportunity to explore the perceptions students have of the formal curriculum. The host teacher had stations arranged around the key subject areas. Host students were allotted a specific amount of time to work on lessons related to the subject-content area before moving to the next station. Preservice teachers would help students with mathematics, science, social studies, or writing and reading lessons and then rotate with the students when the teacher announced their time was up.

After host students and preservice teachers rotated through every station, the teacher requested students take their assignments home and complete them or file them in their desks until the next opportunity to complete their individual work. After they engaged in individual instruction, the preservice teachers were given their third assignment that focused on an exploration of students' perceptions and abilities in relation to the official school curriculum. The preservice teachers were asked the following questions: How would you describe the official curriculum in each of the subject areas and the extent to which it was relevant to the life of the student? Given the pedagogy and curriculum of the host teacher, what unofficial or hidden curriculum² is taught to students? After you spent time helping students with their lessons, what—if anything—do you feel was missing from the curriculum?

After the preservice teachers engaged in observation and individual instruction, they accompanied the host students on a lunch outing to a nearby authentic Mexican restaurant. This element of the site visit had two aims: (a) to illustrate the immense responsibility teachers have for the well-being of their students, particularly on field trips and out-of-classroom activities, and (b) to provide host students an opportunity to display their personal knowledge. The majority of students in the East Chicago school were bilingual and of Hispanic/Latino heritage, while few if any preservice teachers were either bilingual or racial and ethnic minorities. In the context of the Mexican restaurant, the host students had an opportunity to display their culturally specific expertise, including the pronunciations of Mexican dishes on the menu and descriptions of their ingredients.

While the preservice teachers were officially responsible for their mentees during lunch, they found in the context of an authentic Mexican restaurant they had to rely upon their mentees for culturally relevant knowledge or risk eating foods they might not like. Through purposeful experiences outside the classroom in cultural contexts related to the ethnic background of minority students, the absolute authority of the preservice teacher was brought into question. This reversal of authority provided an opportunity to question banking models of teaching and learning that assume teachers make deposits in students who have little worthy prior knowledge (Freire, 1972; Ladson-Billings, 1994).

On the return trip to the university the faculty member led the preservice teachers in a discussion of the lunch experience; the host teacher's approaches to curriculum and instruction; and each of the assignments related to the bus trip, observation, and individual instruction. After the discussion, the preservice teachers were instructed to compose a paper that utilized their journals and each of the three assignments to critically analyze the four epistemological sites out of which curricular understanding occurred: personal knowledge, subject knowledge, social knowledge, and teacher knowledge. The aim of the paper was to blur the boundaries between the knower and the known by mapping experiences from the site visit onto a typography that illustrates explicit, implicit, and null perspectives on curriculum (See Eisner, 1994; Gadotti 1994). With the site visit and analysis as a guiding framework, the preservice teachers had a context in which to engage in interactive, virtual field experiences that were significant and relevant for both themselves and the students at the host school.

The two faculty members that ran the Diversity and Technology Project found cross-cultural relationships that began with face-to-face interactions inside and outside of the classroom (in addition to the mentoring relationships between preservice teachers and host students) afforded the critical awareness necessary to sustain engagement and interest through two-way video conferencing. After the preservice teachers completed their papers based on the four sites of curricular knowledge, they were asked to consider how a Freirian model of pedagogy might differ from conventional educational instruction and how it might be implemented through two-way video conferencing. The preservice teachers mapped the four epistemological sites onto a Freirian pedagogy that included personalization, dialogue, and praxis. The relationship they developed between the curriculum and the pedagogical models served as a guide for their virtual field experiences.

Three Themes From a Freirian Virtual Field Experience

This section explores in more detail the significance of the Freirian approach to virtual field experiences and the provision of opportunities for preservice teachers to observe and instruct in diverse settings. Freire (1972, 1995) drew upon and wove together a number of strands of thought regarding pedagogy, curriculum, and social equality that have

relevance for multicultural understanding. First, Freire was concerned with *personalization* that involved linking self-examination with making a difference in the world. Personalization posits teaching as primarily a cooperative activity that includes securing respect among all parties involved. Freire emphasized informal means of communication that elevated egalitarian relationships over hierarchical structures and formal chains of command. Personalization enhanced the opportunities for community building and provided a context for sharing social capital in ways that made possible the pursuit of social equality and human flourishing.

Second, Freire placed an emphasis on conversational approaches, what he termed *dialogue*, with and between preservice teachers. This approach is characterized by people working with each other rather than acting upon one another. Freire's emphasis on dialogue was an attempt to overcome banking models of instruction that assume the minds of students are free of previous knowledge and available for teachers to make deposits. Third, a Freirian approach addresses the idea that preservice teachers have a *praxis*-oriented pedagogy that involves engendering hope through actions informed by certain values. Freire asserted that critical awareness was not simply an end in itself but a form of consciousness believed to have the ability to change the symbolic and material realities of teachers and students (Freire, 1972).

Preservice teachers need to take full advantage of two-way video conferencing. Rather than simply delivering a lesson plan over the Internet, preservice teachers were instructed in interactive lesson plans that revolve around discipline knowledge, personal knowledge, and contextual knowledge. A Freirian approach to virtual field experiences recognizes that informed action provides a useful counterbalance to those preservice teachers who are resistant to or who want to diminish the role of multicultural theory. The following section further describes each of the three strands of Freirian thought, along with practical examples of their role in informing preservice teachers of the complexities of multicultural practices while involved in virtual field experiences.

Personalization

Personalization encourages preservice teachers to recognize that they cannot assume students they teach have life experiences similar to their own or to each other since they often speak numerous languages; have different spiritual customs; and come from a range of countries, regions, neighborhoods, and economic and ethnic backgrounds. Through personalization, preservice teachers are asked to step out from behind the formal title of teacher and begin to appreciate that a successful educator cannot take for granted students' ability to verbally communicate with each other.

Faculty members explained that successful teaching in multicultural settings includes reworking lessons and classroom interactions until cross-cultural learning becomes a key axis around which they can develop disciplinary knowledge, personal knowledge, and contextual knowledge. Personalization required preservice teachers to relate disciplinary knowledge to their personal lives, as well as the lives of students, and to provide ample opportunities for students to talk spontaneously about their own experiences within each lesson. Faculty members instructed them on how to offer occasions for host students to shape the significance of each lesson plan, and two-way interactions between preservice teachers and host students became vital components of each virtual field experience. What follows is a description of the ways the two faculty members used personalization during video conferencing sessions.

Getting personal with technology. From the first day of the virtual field experience preservice teachers were encouraged to view the videoconferencing equipment as an extension of their instruction. Rather than focus on technology as an end, they were invited to view it as a vehicle for effectively interacting with students at the host school. The personalization of technological equipment meant that preservice teachers were required to have an advanced understanding of its operation so that the equipment became secondary to the opportunity it provided to share in the education of host school students.

Preservice teachers were instructed in the use of the technology and its potential applications to the classroom by technology staff assigned to the P3T3 project. Ongoing assistance was also available from technology staff and graduate assistants funded within the larger project. The first two sessions following the site visits, 2 hours each time, were devoted to learning how to use the technology. The initial session consisted of manipulating the equipment, which involved learning how to connect to the other site, how to operate the remote controls for the cameras at the university and at the host school site, and developing hand signals to facilitate communication. The second session consisted of “teaching” a lesson from a “remote” site, which included two groups of preservice teachers interacting with each other from different technology labs in the same building on campus. Initially, the two faculty members involved in the project were instructed by technology staff at the same time as preservice teachers. In later semesters, they helped orient the preservice teachers.

The host teachers were assisted in the use of the technology by their school district technology staff and also voluntarily attended technology workshops at Purdue. The host students were not provided with formal training but were given opportunities to learn about technology throughout the course of the project. In their case, most training focused on how to speak clearly and into the camera, as well as how to interact in tutoring sessions over the minicams. Once the initial training was complete, preservice teachers reported the use of technology became a peripheral concern. By the fourth week of the semester, the focus of the preservice teachers shifted dramatically and quickly from how to “use” technology to how it could enhance instruction and observation in diverse settings.

The buddy system. Spurred by the recognition that meaningful dialogic interaction was the key to sustaining high levels of investment over the course of virtual field experiences, a buddy system was infused into virtual field experiences to allow for more personalized cross-cultural communication and an increased sense of social responsibility. As mentioned previously, before engaging in site visits, preservice teachers were paired with “buddy” students from the host school, whom they were encouraged to get to know on a more personal level. They wrote letters that addressed historical information about their lives, why they were becoming teachers, and the academic and personal likes of their host student buddy, as well as a photograph. All letters were sent to the host school before the site visit took place.

After the site visit, mentoring relationships were maintained through instructional activities. Preservice teachers and host students brought in “me bags,” paper lunch sacks decorated to represent their lived histories and personalities with an artifact enclosed that symbolized favorite childhood memories. These opportunities for informal exchanges, in addition to developing rapport between preservice teachers and host students, provided occasions for preservice teachers to refine public speaking, classroom management, and technical skills, such as the utilization of document cameras.

Analysis of personalization. Throughout the virtual field experiences, the preservice teachers were charged with understanding the educational experiences of host students. In various assignments they documented how they were both similar to and different from their own journeys through K-12 education. In addition, preservice teachers were encouraged throughout the semester to focus on the life experiences of their buddies so they might better understand the impact social, economic, political, and educational issues have on students. Through encouraging the development of more in-depth relationships between preservice teachers and host students in mentoring relationships, the hope was that the complexities of social group identities and life circumstance that at first might seem unrelated to schooling might more easily come to the surface.

Of particular relevance, the substantial relationships between preservice teachers and their buddies initiated through letter writing and site visits helped sustain virtual field experiences. Preservice teachers who were more invested in their relationships reported being more excited about the two-way video connections in their educational journals, course assignments, and capstone papers. Equally important, when encouraged to seek out the experiences of host students, the preservice teachers began to construct and adapt lesson plans proactively according to their interests. While the subject matter might have been the same for a particular video conferencing session, preservice teachers who were more invested in host students began to personalize lesson plans and instructional approaches based on more nuanced understandings of host students.

Dialogue

Informed by a Freirian approach to education that suggests teaching primarily involves developing the self through the development of others, learning and teaching are seen as two parts of the same process: different moments in the cycle of gaining existing knowledge, recreating that knowledge, and producing new knowledge (Freire, 1972). Accordingly, faculty members helped the preservice teachers design educational activities that encouraged host students to ask questions and gain a sense of control over their own learning. In the process, the preservice teachers began to understand that the interactions across two-way videoconferencing were generating cross-cultural understanding regarding how to teach in diverse settings. After two video conferencing sessions, preservice teachers commented in their journals that curricula cannot be fully planned ahead of time. Once instruction over the Internet began it acquired its own character that could not be explained through preplanning or modeling the acts of sending and receiving.

Dialogic lesson plans. For preservice teachers, enacting curriculum was interpreted as incorporating disciplinary and contextual knowledge with the personal knowledge of host students, all while mastering videoconferencing technology. In one particular instance, preservice teachers engaged in a social studies lesson and found that the curriculum and instruction focusing on careers and jobs in society would need to be flexible enough to incorporate student perceptions and experiences. When preservice teachers held up pictures of a mailman to the video camera, showed a detailed picture of a post office on the document camera, and discussed the history of the postal service, they realized that host students did not conceptualize the mailman as a government employee. Instead, students remarked that their mail carrier was a friend of the family, sometimes invited in for a beverage, and frequently called by his or her first name. The preservice teachers rarely held such close relationships with postal employees. Their lesson, intended to impart practical knowledge, grew into a two-way interaction that involved preservice teachers and host students educating each other about their experiences with the mail service.

When preservice teachers went to the next part of their lesson and replaced the photo of the mailman with a convenience store owner and instructed students about how people consume household goods in an industrial society, one student looked troubled and quickly raised his hand. Attempting to engage student interests, his preservice teacher mentor called on him to speak. Preservice teachers found out that in the last year his uncle was shot while working as a cashier at a convenience store. Shocked by the openness of the student, the preservice teacher placed the microphone on mute and asked the faculty member in charge for help. The faculty member quickly stepped in, asked the preservice teacher to adjust the camera to focus on the student, and affirmed the student's statement by asking how his uncle was doing. After the faculty member confirmed that the student's uncle had returned to health, this unexpected turn in the lesson plan was utilized as an opportunity to address safety and violence and the role of the police in providing security in a properly run democracy.

Acting as a role model for preservice teachers, the faculty member explained the need to be able to enact curriculum around "teachable moments" and enlisted the preservice teachers to record the host students' comments as he asked them how problems might be resolved without the use of violence. A list was created that was later posted in the school classroom and used by the host teacher. In a debriefing session that followed this particular videoconferencing session, a discussion ensued on the social issues that arise when people see little hope for the future, as well as the ways social, political, and economic forces work together in negative ways that can exacerbate tensions in distressed communities.

Dialogue helped illustrate to preservice teachers that education needs to be inclusive of the personal knowledge of host students. Through the use of dialogic lesson plans, student experiences are honored. Social problems are not necessarily solved, but the nature of the differences between life experiences and communities are acknowledged in ways that, in an immediate sense, allow preservice teachers and host students to draw connections between their personal knowledge and the curriculum. In circumstances that arise during instruction for which it is impossible to plan, a better understanding of the complexities of a situation is all that might be possible.

Cross-cultural experiences and dialogic interactions. In the fifth semester of the project preservice teachers worked with a second grade classroom in the East Chicago school. During the semester, the host teacher was preparing to teach in Japan and planned to build her lessons around their culture. Preservice teachers were asked to help with instruction by working with host students to brainstorm international topics around which to shape the curriculum. The host teacher explained that eventually the host students would put their assignments together into a book about Japan.

After the brainstorming session, the host teacher organized the questions into the following topics: geography, school life, food, daily activities, wildlife, and arts and literature. Preservice teachers then worked in groups of three to prepare lessons around each of the topics, while conducting research on the Internet to build subject area content. In addition, two international graduate students from Japan worked with the preservice teachers to prepare a Japanese writing lesson during one of the video connections. The preservice teachers who worked on life questions helped host students compose a book, and the group working on food questions prepared a lesson during which the preservice teachers and the host teacher prepared sushi simultaneously during one of the video conference sessions. In an assessment of the virtual field experience at the end of this semester, the host teacher reported these lessons to be most successful and requested the PowerPoint presentations and supporting documentation for use in future lessons.

Analysis of dialogue. These findings should not be taken as an indication that preservice teachers were initially open to dialogic instruction. While this process generated a great amount of excitement on the part of host students, preservice teachers reported being uncomfortable with dialogic interactions and expressed the desire for more conventional methods of instruction, including use of textbooks and worksheets. In particular, they expressed concern that they would not be able to provide definitive answers to the host students' questions. Preservice teachers also reported being surprised and uncomfortable with the complex nature of students' questions.

Created through dialogue that occurred during virtual field experiences, these lessons were built out of the interests of preservice teachers and host students and provided opportunities to engage in lesson planning proactively rather than rely upon prepackaged information provided in textbooks. These lessons gave evidence to ways in which the continual refinement of virtual field experiences resulted in an increased quality of education. At various points throughout this project, preservice teachers offered a variety of enrichment activities that provided support for the teacher's curriculum and practical experience with observation and instruction in a diverse setting. As reflected in journals, assignments, and classroom conversations, preservice teachers held negative beliefs about low income, second language, and minority students. Over one third of preservice teachers commented in their journals that family members and friends were concerned for their safety prior to the site visit and that they expected the students to be further behind in their studies and less able to learn. Through purposeful, dialogic lesson planning, these preservice teachers reported that the abilities of host students challenged their previous conceptions. The dialogic character of the Freirian approach to virtual field experiences, while initially resisted by preservice teachers, proved beneficial after they had practical experiences reconceptualizing curriculum and instruction to be more inclusive of the interests and desires of students.

Praxis

A Freirian notion of praxis affirms the central importance of education as the pathway toward self-direction and understanding the conditions of one's own existence. Professional preparation is drawn into relationship with the need to respect and value interactions with students, as well as examine the moral implications of teacher practices. The two faculty members involved in the project placed an emphasis on finding commonalities with students in ways that open up the possibilities for authentic dialogues in which both preservice teachers and host students engaged freely with each other while maintaining a particular focus on objectives or goals. Preservice teachers were given the opportunity to learn that while curricula are mapped out beforehand they are also, in part, created spontaneously through the dynamics of the interactions themselves. When preservice teachers engaged in field observations and began to teach through two-way videoconferencing, they were invited in their assignments and course discussions to consider what they learn from students, as well as what students learn from them. Praxis involved a focus on the process of synthesizing actions with values in ways that reflect critical awareness of the implications of particular teacher practices.

Book drive. As part of virtual field experiences, the curriculum was designed to provide preservice teachers with periodic opportunities to conduct debriefing sessions with the teacher without students present. Through these dialogues, many preservice teachers gained valuable insight into host students and their families that defied easy categorization and challenged preconceived notions of historically oppressed groups. During a 4th year connection to the East Chicago school, a host teacher described her experience organizing a field trip and the response she received when she sent a request home for chaperones; every parent but one expressed an interest in taking a day off work

or rearranging their schedules so that they might assist in the field trip. Contrary to many stereotypes that suggest low income Hispanics/Latinos and African Americans do not value education, preservice teachers reported that they learned from the host teacher that there was a high regard for education and learning opportunities among the parents of the host students.

Through ongoing debriefing sessions with the host teacher, the preservice teachers learned that host students often lacked opportunities many preservice teachers considered fundamental to their K-12 educational experiences. Preservice teachers noted in their journals that they were impressed by the school's physical facilities and wondered how a distressed area was able to afford a relatively new school. They learned the building was recently renovated through an influx of funds from casinos operating within the district; however, because the funds were restricted, the school still lacked music, gym, and art teachers. In addition, the host teacher noted that other teachers remarked they had little time to involve students in these extracurricular activities given the lack of support and new state testing mandates.

Praxis was built out of challenging stereotypes in ways that provided preservice teachers with the opportunity to take well-thought-out action to assist students in reaching their full potential. Preservice teachers knew that it would not be practical to challenge the funding structures of the school but learned through debriefing sessions with the host teacher of a project that would give back to students. After talking with the teacher, the preservice teachers discovered that over the summer students often lost the progress they made on their reading skills, the result of a lack of age-appropriate books and magazines in their homes. In response, preservice teachers organized an ongoing book drive for the entire school. This book drive exemplifies one of the ways in which they began linking the needs of students with their own actions as educators, tying ethical considerations to teacher practices.

Analysis of praxis. Spurred to action by the recognition that being an educator is as much about being a civil servant as a classroom practitioner, preservice teachers learned that praxis means working in the community, engaging in leadership activities, charting unknown territory, being responsible to others, and following through on commitments. When preservice teachers planned the book drive, they struggled to gain a sense of direction, as none of the preservice teachers had experience at running a book drive. After conducting an informal inquiry into what a book drive entails, they engaged in outreach into the university community and their hometowns to collect books, careful to mark each region so as not to duplicate their efforts. Preservice teachers who lived near campus agreed to store the books in their apartments and, as the project picked up momentum, they volunteered to meet before class to share progress reports.

As the semester continued, the preservice teachers found ways to incorporate the book drive into the videoconferencing sessions as a method of fostering excitement about reading in host students. They brought in stacks of books, used them as a backdrop for video connections, and signed personal copies for students who contributed to online lessons. When the signed books arrived at the host school, preservice teachers used the opportunity to provide interactive reading lessons on social studies, math, and science that were designed to allow host students occasions to showcase their new book to the rest of the class while preservice teachers conducted a lesson.

Personalization, Dialogue, and Praxis Meet Theory

Through videoconferencing and the embedded processes of personalization, dialogue, and praxis, the preservice teachers grappled with multicultural theory in life situations and educational contexts they will experience later in their careers. Their familiarity with individual students precluded an approach that can result in deficit stereotypes and oversimplification of complex social and educational differences, a phenomenon that Lisa Delpit (1995) noted can lead to references to disadvantaged students as “other people’s children.” Rather than describe host students in an abstract way as “low-income,” “second language,” “immigrant,” or “minority students,” the preservice teachers saw “buddies,” a Carlos, a Maria, a Guadalupe. A Freirian approach to virtual field experiences allowed preservice teachers to gain a deeper understanding of and appreciation for instruction and observation in diverse settings.

Research on multicultural education confirms that practical experiences are beneficial to preservice teachers in developing skills and attitudes toward students who are different from them. Wallace (2000) found that traditional field experiences that provide preservice teachers with the opportunity to experience diversity assist in the development of what she termed “multicultural competencies,” the ability to work with diverse populations and advocate on their behalf. Field experiences have been identified as the best means to prepare future teachers for the diversity and complexity of the classrooms of today and tomorrow (Goodlad, 1990). It is our contention that technology mediated field experiences, such as the one described in this article, can also assist in the development of these multicultural competencies.

Developing multicultural competencies requires preservice teachers to question their assumptions and beliefs about teaching and learning in diverse settings. Throughout the semester, the preservice teachers studied the ideas of multicultural educators as they engaged in virtual field experiences. They read a chapter of Jonathan Kozol’s (1991) *Savage Inequalities* and viewed the PBS documentary film about the book, *Children in America’s Schools* (Hayden & Cauthen, 1996). From interactions with the host teacher and host students and information gained from debriefing sessions, preservice teachers’ prejudgments about low-income minority students often underwent reformation. Before the site visit to East Chicago, the preservice teachers reported that they expected to see an underfunded, rundown school with inadequate resources and students who exhibited bad behavior; in their post-visit reactions they indicated “surprise” at the well-maintained school and well-behaved students. In initial journal entries, preservice teachers indicated that they expected to find an “easy curriculum,” “worksheets,” and “drilling of material.” In journal entries at the end of the semester they indicated that, contrary to their prior expectations, the teacher implemented “a rigorous curriculum,” held “high expectations,” taught “in an integrated style,” and built “on the students’ prior experiences.” Through exposure to multicultural settings, the complexities of curriculum and instruction in diverse settings became apparent to preservice teachers.

Engagement in virtual field experiences on a weekly basis throughout the semester provided preservice teachers opportunities to witness student potential. In journals, online discussions, and debriefing sessions, preservice teachers expressed concerns that they would not be able to challenge the host students because they were “smarter than we [had] anticipated.” For example, preservice teachers prepared science information in the form of a game for one videoconference session. They quickly found out during the session that the material was too simple and that some of the students had scientific knowledge that was beyond that of preservice teachers. (The children had recently been studying the life cycle of insects, and the preservice teachers were unaware of the depth of their knowledge.) Through a series of experiences challenging their stereotypes,

preservice teachers were often forced to reconstruct their beliefs regarding race, class, and student ability. During these reconceptualizations, the faculty members had opportunities to talk more candidly about effective teaching in diverse settings.

Exposure to the classroom in East Chicago also opened preservice teachers to the possibility of teaching in schools they had not previously considered. Some preservice teachers expressed an interest in working with diverse groups of students. Given the severe shortage of teachers willing to work in inner city schools, the clear interest of some preservice teachers in urban education, as reflected in the progression of their journals, was an important outcome of the virtual field experience. Others preservice teachers internalized a praxis-orientation and started to regularly advocate on behalf of the host students. One example of this advocacy was the book drive mentioned earlier. Another example involved preservice teachers who raised money and, in consultation with the host teacher via email (conducted directly with the host teacher without faculty involvement), purchased a set of reference books for the host classroom, additional books for the school library, and supplies for the host teacher (they had found that the teacher was spending over \$500 per year of her own money on class materials). Several preservice teachers delivered the books and material to the school at the close of the semester.

There were additional benefits derived from the mentoring opportunities provided through video connections. Host teachers, who had a great deal of practical knowledge teaching in diverse settings, acted as role models and shared with preservice teachers their strong commitment to the school, students, parents, and community. Preservice teachers gained a sense of praxis through their work with these teachers. For example, over several semesters preservice teachers connected with a host teacher who had been a tireless advocate for historically disadvantaged students for more than 30 years, spoke fluent Spanish and English, and was willing to experiment with technology. During the course of virtual field experiences, they talked with her about a range of topics, from classroom management and lesson planning to the current state of the teaching profession and public education. Technologically mediated mentoring was crucial to the development of preservice teachers' ability to successfully teach in diverse settings.

This project also benefited host teachers, faculty members, and host students. One host teacher remarked that preservice teachers had "kept her thinking fresh" and that she was "using this project for national board certification." As a result of involvement in the virtual field experiences, host teachers provided leadership in the use of technology in their school. The faculty members derived benefit from the rich and varied group discussions of preservice teachers' observation and instruction. It was a rewarding experience to witness preservice teachers learning to work together in groups and in partnership with host students and teachers. The project also enhanced the students' learning and fostered more enthusiastic attitudes toward education. During final interviews, host students offered a range of feelings, most of them extremely positive, about their involvement in the project. They said they felt as if they "had a friend with them" and "liked the attention"; some host students reported they were "a little nervous" about being observed. Perhaps most importantly, the children became interested in higher education. They were excited about being connected with university students and asked many questions about what life is like on campus and what college students do. The principal of the host school also provided positive feedback and indicated that the school valued the site visits and video connections because preservice teachers "provide role models for the children."

Significance of a Freirian Approach

A Freirian approach increased the possibility for successful virtual field experiences. Preservice teachers began to understand that overly formal, rigid approaches to teaching and learning were often inconsistent with the needs of their mentees, particularly in multicultural settings where students might not share similarities in language, customs, traditions, and socioeconomic backgrounds. They began to appreciate that effective teachers create classroom cultures that embrace the unique backgrounds of all students and utilize student differences as building blocks for an empowered community of learners. Preservice teachers were most successful when they related disciplinary knowledge to students' personal lives and provided ample opportunities for them to discuss their own experiences spontaneously. A Freirian approach to virtual field experiences allowed students to shape the significance of each lesson plan and contribute to the knowledge created.

Preservice teachers brought prejudgments to virtual field experiences. By focusing on dialogue, personalization, and praxis, preservice teachers learned that the experience of working virtually with the host school entailed much more than learning how to use technology and committing to memory discrete bits of information. A Freirian approach emphasized the process of coming to understand the significance of teaching, as well as the impact various social group identifications have on life experiences and interactions in education.

Gadamer (1979) used the metaphor of the horizon to describe the character of such interactions. Each preservice teacher had a horizon of understanding he described as "the range of vision that includes everything that can be seen from a particular vantage point" (p. 143). A Freirian approach utilizes virtual field experiences to map preservice teachers' horizons, thus enabling them to understand the horizons of others.

Equipped with these prejudgments, preservice teachers engaged in virtual field experiences. Through the dimensions of personalization, dialogue, and praxis, they began to integrate others' horizons into their instruction and observation. Through virtual field experiences informed by a Freirian understanding of pedagogy, a particular form of confrontation—one that troubles the prejudgments of preservice teachers—took place. Preservice teachers reported that, often for the first time, learning from those different in race, class, gender, and ethnicity engendered a critical encounter with the self. The approach described in this article assumed that only when preservice teachers moved beyond "delivering a curriculum" toward "curriculum in two way interaction" could they fully open themselves to the significance of the stories coming from those who were underprivileged.

A Freirian approach toward virtual field experiences entails neither complete nor full agreement with the proposed aims of the two faculty members who designed such experiences. Instead, it builds upon the belief that when virtual experiences are designed around the "play of interactions," preservice teachers will discover the cultural styles and intellects—the horizons—of those often thought of as "other people's children" when they are thought of at all. As a way of working with resistant preservice teachers, a Freirian approach to virtual field experiences was not concerned with imposing multicultural understanding but with utilizing diverse settings to illustrate the relevance of multiculturalism in practical ways that might reshape convictions regarding appropriate curriculum and instruction in public education.

Virtual field experiences in East Chicago provided preservice teachers with an opportunity to test their own understanding of the world against the cultural styles and intellects of cultural minorities who are often misunderstood. The most effective virtual field experiences recognize that preservice teachers' horizons of understanding are under continual formation and that prejudgments are always already under testing. Exposure to diverse school settings, then, is not just an encounter with the other, but also involves an encounter with the self and the traditions with which preservice teachers identify. Gadamer (1979) reminds us that "the old and new continually grow together to make something of a living value, without either being explicitly distinguished from the other" (p. 273). By using Freirian notions of personalization, dialogue, and praxis, virtual field experiences provide opportunities for interactions between preservice teachers and diverse students that under circumstances of technological deficiency might not have occurred. Through these interactions and reciprocal learning practices, multicultural competencies develop.

An emphasis on professional preparation and moral agency can result in well-trained professionals who are proficient in the use of technology and capable of engaging in generative reflection regarding the implications of their actions. In this sense, a Freirian approach to virtual field experiences emphasized that preservice teachers maintain a perspective of humility in their interactions with teachers and students at the host school (Greene, 1995). The overuse of this term belies its complexity in relation to the training of preservice teachers. A humble orientation required dialectics of action and reflection that prepared preservice teachers for their roles as professionals, mentors, and civil servants. Questions of morals and ethics were infused in virtual field experiences and course design in order to allow future teachers to identify as civil servants and advocates for democracy.

An ongoing dialectic between action and reflection helped preservice teachers understand that decision-making is often situational and that there exists no preformed knowledge base to guarantee that the right means will always provide an appropriate end in a particular situation. As Bernstein (1983) noted, desired ends can only be specified in deliberations regarding the means appropriate to a particular situation. As preservice teachers thought about ways they might approach virtual field experiences, they changed their aims and goals in the process. Through the use of two-way videoconferencing that allowed preservice teachers to observe and instruct in multicultural settings previously unavailable, future teachers began to understand the important interplay between action and reflection. Personalization, dialogue, and praxis among preservice teachers, then, involved taking action based on reflection that also had enfolded within it a commitment to the well being of students, a search for understanding, and a respect for others.

Considering the current attention to standards and assessment, preservice teachers often enter the profession with an obsessive preoccupation with student achievement in the form of mastery of the appropriate number of objectives and goals, possibly, as clear empirical evidence of their abilities as future educators. Through observation and instruction they began to recognize that even the most carefully crafted lesson plans were enacted informally in ways that rarely reflected clockwork precision. After repeated video conference sessions preservice teachers noted that they would not be able to rely fully upon prescribed lesson plans. A Freirian form of critical awareness was evidenced in student journals as they reflected upon diverse classrooms where students' various cultural styles and intellects translated into the need for different methods of instruction, communication, interaction, and self-presentation.

In addition, the book drive demonstrated critical awareness as preservice teachers analyzed the discourse of the host teacher and unearthed a problem to which they might be able to provide a solution. As such, their actions were guided by values that involved

empathy and a sense that all students should have the opportunity to develop and refine their reading skills. Through actions developed out of virtual field experiences that encouraged altruism and empowerment, preservice teachers had the opportunity to envision themselves as capable of building communities by helping students and their families gain self-direction and an understanding of the conditions under which they live. The book drive illustrated not only the development of critical awareness but also the ways newly formed insights through personalization, dialogue, and praxis can be used to enact changes that benefit others. Virtual field experiences enabled preservice teachers to understand that teacher practices involve ethical considerations and moral questions that impact students in ways that might not be immediately understood.

Conclusion

This article has described the ways in which a Freirian approach to virtual field experiences and the education of preservice teachers was used to address four challenges to providing exposure to multiculturalism:

1. To encourage resistant preservice teachers to make some level of investment in the tenets of multiculturalism.
2. To persuade preservice teachers to make significant personal commitment to the students from the host school.
3. To encourage preservice teachers to develop reciprocal relationships that involve an exchange of knowledge and resources with students, teachers, and administrators.
4. To provide sufficient opportunities to develop critical awareness of the economic, political, and social forces that shape the context in which schooling takes place.

Curricular and pedagogical approaches continued to undergo refinement, and the experience of preservice teachers did improve as indicated in their journals and papers. These results should not, however, be interpreted as a sign that the use of two-way video conferencing is without limitations. Occasionally, poor electronic connections to the host school resulted in pixilated images and frozen frames lasting sometimes as long as 5 seconds; other times services was disconnected altogether.

In addition, preservice teachers remarked in papers, journals, and debriefing sessions that they wished for more face-to-face interactions with students and, as a result, an additional site visit was added to the end of each semester after the 1st year. The prospects of a second trip to the host school seemed to allay concerns over the impersonal nature of videoconferencing and provided preservice teachers with a sense of closure. Despite these limitations, there was ample evidence in journals, papers, and video footage that the observational and instructional opportunities afforded by this project exerted a profound effect on the preservice teachers. (For footage of interviews, video conferencing sessions, and feedback regarding virtual field experiences, see <http://teachingnow.org/tvProgramDesc.php>. Follow the link under Spring 2003, P3T3 Now! 207.)

Preservice teachers who engaged in virtual and traditional field experiences concurrently expressed that their perceptions were positively changed through work in diverse settings. One preservice teacher chronicled that the knowledge she gained through virtual field experiences empowered her to work more closely with Spanish speaking students who were “not given much attention” by the teacher she observed in her traditional field experience. Through a Freirian approach to virtual field experiences that emphasized personalization, dialogue, and praxis, many preservice teachers developed the ability to

function effectively as multicultural, competent, critically aware educators while enrolled in a teacher education program located in a predominantly white, rural area.

Notes

1. Purdue University's 2000 PT3 implementation grant, entitled "P3T3: Purdue Program for Preparing Tomorrow's Teachers to use Technology," was launched at a fortuitous time to provide support for ongoing reforms of teacher education at the institution. In fall 1999, Purdue began to implement completely revamped teacher education programs, and the final new courses in the new programs were put into place and the first group of students graduated in spring 2002. The P3T3 project played a pivotal role in bringing to fruition these substantial reform efforts.
2. The hidden curriculum of the school is what it teaches implicitly because of its characteristics. Elements of the hidden curriculum might include reward systems, organizational structure, physical characteristics, conceptions of time, and available resources and equipment. Teachers, students, parents, and community members often recognize these features of the educational experience implicitly.

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