

Online Learning in Sociocultural Context

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Proponents of online learning claim that it can transform education by promoting student-centered communication, collaboration, and inquiry. Yet these claims must be weighed against the actual implementation of online learning, which is influenced by a broad range of sociocultural factors. This study investigates sociocultural factors that helped shape a computer-based English as a Second Language (ESL) writing course in a conservative Christian college, factors that included a complex relationship between teacher, researcher, and students.

For the last 20 years, the educational literature has been replete with articles about the promising potential of new applications of microcomputers in the classroom, only to be followed a year or two later with disappointing reports of the actual implementation. As Cuban has ably documented (1986, 1993), the actual use of new technologies in the classroom is sharply constrained by broad sociocultural variables such as the role of schools as an instrument of social control and sorting, the general culture of teaching, and the beliefs of classroom teachers. As a result, new media are usually introduced in a top-down fashion at odds with sound educational principles, and microcomputers are frequently used for drill-and-practice activities requiring low-level cognitive skills of rote memory and application (Cummins and Sayers 1990).¹ And, as studies have shown (see, for example, Mehan et al. 1985; Roberts 1987), it is ethnic and language minority students who are least likely to have access to computers or to use them for challenging, problem-solving activities.

Now, with the rapid growth of the Internet, one wonders if the cycle of praise and disappointment is beginning again. Online learning has quickly become the most-touted current application of computers in education (see, for example, Berge and Collins 1995; Cummins and Sayers 1995; Harasim 1990b; Harasim et al. 1995). According to its supporters, online education "introduces unprecedented options for teaching, learning and knowledge building" (Harasim 1990a:xvii) and can help "create communities of inquiry capable of stimulating intellectual, moral, and educational growth among rich and poor alike" (Cummins and Sayers 1995:ix).

Yet these positive assessments of the potential of online education have not yet been sufficiently backed up by systematic studies of the

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actual uses of online learning in the schools. Within my own area, second-language learning, published studies of online education have mostly consisted of innovative teachers reporting anecdotally on their own successful practices (see, for example, Barson et al. 1993; Kern 1995b; Soh and Soon 1991; Warschauer 1995). More methodical research (see, for example, Chun 1994; Kern 1995a; Warschauer 1996) has tended to examine one or two particular aspects (for example, the discourse in an online session) rather than provide a grounded, longitudinal, and contextualized account of the overall implementation of the online activities and of the students' experiences. And the very few contextualized ethnographic studies that have been published in this area (for an excellent study see Tella 1991) have examined the experiences of "mainstream" middle-class students rather than ethnic or language minorities.

To help fill this gap, I conducted a semester-long ethnographic study of an ESL composition class at Miller College,² a medium-sized Christian institution of higher learning in Hawai'i. I chose this particular class for the study because (1) it was largely taught through online activities; (2) the students were a culturally diverse group from a broad range of Pacific, Asian, and South American countries; and (3) the teacher of the course, Ms. Sanderson, was enthusiastic about inviting me in as a researcher and collaborator. That Miller College was a conservative Christian institution was not a factor in my selection of the class, although I realized that that was part of the sociocultural context that could affect the way classroom instruction was carried out.

In conducting the study, I was not a neutral observer. First of all, I had my own well-developed beliefs about the potential of online learning, based on a sociocultural perspective that emphasizes the importance of creating communities of practice and semiotic apprenticeship in the classroom (Bayer 1990; Wells and Chang-Wells 1992). I felt that computer-mediated communication, by giving students opportunities for cooperative writing with each other and with distant partners, provided an excellent tool for promoting critical, collaborative learning. Beyond this belief, I was biased in an additional sense. The teacher of the course (Ms. Sanderson) and I agreed that I would actively work with her in sharing my thoughts and ideas about the learning objectives and activities throughout the planning and implementation of the course. Rather than being an outside researcher, I would thus be a partner in collaborative education and inquiry. Though in the end this process of collaboration did not develop in quite the ways we had imagined, it nevertheless proved to be an important factor that had some influence on the outcome of the course.

A Walk through Miller College

A first-time visitor to Miller College—with its well-manicured lawns, quiet and clean grounds, and polite, conservatively dressed students—gets the sensation of entering a small town in the 1950s. A walk

through the campus dispels any lingering doubts that this is a conservative institution. The college's dress code is posted prominently on all buildings. (For example, "Sideburns should not be long or busy, and should not extend below the bottom of the ear.") Signs posted in the cafeteria urge students to "Stop legalized abortion" and to say "No to legalized gambling." A front-page headline on the school newspaper asks, "Judgment Day: Will you want justice or mercy?"

A visit to the campus bookstore confirms the conservative orientation of the campus. A recent book, prominently displayed near the entrance, contains chapters such as "One True Church" and "Teaching Pure Doctrine."³ The book explains that doctrine cannot be learned through experience or active interpretation, but must be taught from above. Another recent book (also on prominent display) emphasizes the importance of teaching the principles of the gospel rather than teaching ethics. Other books discuss the church's active role in working to bring this doctrine and its principles to the peoples of developing nations.

According to the college catalogue, the church's institutes of higher learning, including Miller College, were established for the purpose of assisting these goals, both by training students in church doctrine and preparing them to serve the church. The catalogue states that "All students at Miller College should be taught the truths of the gospel of Jesus Christ." The church president is quoted as saying that "those who are blessed to attend [Miller College] have a great responsibility to make certain that the Church's investment in them provides dividends through service and dedication to others as they labor in the Church and in the world."

Miller College thus plays a prominent role in the church's missionary work, especially in the Asia-Pacific region. American students who attend Miller are generally involved in missionary work in Asia and the Pacific. The majority of Miller's students, however, are not Americans, but are rather foreign students from the Pacific. Most have been involved in church activities in their countries and are learning the church's principles and developing leadership skills so that they will return to their countries as more capable church representatives.

Ms. Sanderson's Class

Ms. Sanderson's class is composed entirely of international students. Ten are Pacific Islanders from Tonga, Pohnpei, Palau, Samoa, Tahiti, and the Cook Islands, with the remaining six from Japan, Indonesia, Mongolia, Korea, and Brazil. The course is an advanced ESL composition class in the college's English Language Program. Students in this program have been admitted to the university, but due to low test scores are required to complete some special ESL classes. The purpose of this particular class is that students sufficiently master the genres of U.S. academic writing so that they will be able to succeed in regular college classes.

Ms. Sanderson's class meets four times a week, twice in a computer lab and twice in a regular classroom. I visited the class once every one to two weeks throughout the semester, and between classes I stayed in touch with Ms. Sanderson and the students via e-mail. I received copies of nearly all the e-mail messages and texts the students wrote throughout the semester. I interviewed students in four rounds throughout the semester on a voluntary basis, with 12 out of the 16 students participating in one or more of the interviews. I also talked informally with students before or after class, in the computer lab, and in the cafeteria.

In the end, the course developed in ways that I had not expected, but the experience of discovering and working through this proved to be a valuable one for the teacher, students, and me. The process revealed a great deal about the sociocultural context of collaborative computing, as shaped by both institutional goals and values and also by ongoing negotiation between teacher and researcher. The following, then, describes my experience in Ms. Sanderson's class.

Discipline and Order in the Classroom

The atmosphere of discipline and obedience that pervades the college is apparent in Ms. Sanderson's class as well. The students work quietly and in an orderly fashion, without getting out of their seats to work with classmates at other computers. They raise their hands politely when they want to ask a question or need assistance. A wall display in the computer lab contains gold stars for students who have successfully completed their assignments.

Every class in the computer lab begins with a five-minute assignment or quiz, which is sent to the students over e-mail (for example, "Correct the following sentence: It was not until the 1970s that the International Cultural Center become one of most popular visiting sites."). Students must complete the quiz and send it back within the allotted five minutes or they receive no credit. After the five minutes are up, Ms. Sanderson announces that no more credit will be given for the quiz. She explains that "the class meets really early in the morning, and I'm worried about them coming late. This helps make sure they get here on time."

These quizzes were of great frustration to many of the students, especially the ones who were new to computers and could not work very fast. Don, from Tonga, had never worked with computers before and was always a little bit behind in class. While other students were completing their quizzes, he was often still trying to figure out how to log in. Inevitably, when the five minutes were up, he still could not complete the assignment, no matter how hard he tried. I never saw Don smile in class.

The standards of discipline and hard work are applied to the quantity of assignments as well. A handout students receive the first day (which warns them twice to respect the dress code) explains in great detail an exhaustive list of assignments to be completed during the semester,

including 60 grammatical exercises, five typing tests, 10 take-home essays, five in-class essays, two reading reports, 20 "key pal" (e-mail pen pal) letters, and a final research paper. Ms. Sanderson works extremely hard correcting all of these assignments, on occasion staying at her office all night in order to keep up with her work.

Ms. Sanderson's concern with rules and order also extends to her view of composition. She is not a proponent of freewriting or discovery writing. Rather, her verbal instructions and handouts explain to students exactly what is expected in a composition, as can be seen in this handout:

Remember that in *comparison* writing, you are presenting similarities (not differences!).

Your *organization* is important:

- an *introduction* of three sentences with a *thesis statement* at the end,
- *development* paragraphs (2-3) with
- keyword and "most important" transitions in each paragraph
- *comparison transition* in the body of each paragraph
- a *conclusion* of at least three sentences.

Your ideas should be thoroughly developed (*5+ sentences per paragraph*) for high "content."

The focus on correct form and organization corresponds with what the students seem to expect of the class. When asked what good writing entails, or what they need to improve their writing, most students mentioned features related to organization or mechanics. One student, when asked what he liked most about the class, said, "I like how she gives us the structures of essays. For example, putting a comma before the word *and* in a series. I was taught not to put the comma in my country."

Peer editing is conducted, but without any opportunity to discuss the ideas in papers. Rather, students are given five minutes to both read a paper and assign it up to 20 points each in five categories (content, vocabulary, organization, language use, and mechanics). From observations and the students' comments, it is clear that these peer evaluations are conducted without much thought.

Uses of Technology

During the first week of class, a quiet Polynesian student made the exciting realization that she could use the computer system not only to write to her classmates but also to her faraway friends. She quickly jotted out a note to a friend at another university, using colloquial language, and asked how to fill in the e-mail address and send it. Ms. Sanderson glanced at her letter and sternly told her to check her grammar first. The class ended without the student learning how to address the message, and it went unsent.

A similar example occurred later on when the students first learned how to use the World Wide Web. Clearly, one of the most exciting

features of the Internet is how the World Wide Web can be used to quickly gather information from a great variety of sources from all over the world. Ms. Sanderson's students did not discover this fact on that day, nor, to my knowledge, until the very end of the semester. Rather, they were instructed exactly how to navigate through the college's Web pages to an online grammatical exercise that they then completed.

These two examples illustrate how electronic technology was used as a tool to implement and reinforce the rule-based functions of the class. Students spent about four hours a week completing computer-based grammar exercises. They also spent additional hours completing Typing Tutor exercises, which were mandatory even for those students who knew how to type. Most important, however, was the fact that almost all electronic communication, whether between the students and teacher, among the students in the class, or with long-distance pen pals was directed toward correct form rather than expressing meaning.

For example, the students worked in small electronic groups throughout the semester, e-mailing paragraphs back and forth which their classmates corrected for grammar and spelling and then e-mailed back. The students also decided in advance their topic sentences for each paragraph, and e-mailed these to their classmates for correction and feedback. The students wrote weekly essays that they e-mailed to the teacher for correction and comment. The students then sent the corrected essays, with a sentence or two of introduction, as letters (of a sort) to their long-distance key pals. Each letter was retyped (or, for the more computer-literate students, cut and pasted) in four different messages with a slightly different introduction to four different key pals, and then given a grade. A bold print warning on the first handout notified students that "The instructor will *not* give credit for e-mailed key pal letters which have not been submitted in draft form for prior response on the due date" (emphasis in original).

Although students were generally interested in improving their grammar and form, they still chafed at the tremendous amount of time they spent at computer tasks they saw as weakly related to developing their writing skills. As Katina, a Samoan student, said,

The whole thing is a big overload. There's a typing 101 class, so all this typing is a big overload. For some of us who know how to type, it's a big waste of time. But if it's helping us with our grade in the class, we do it. But why should we spend our time on this instead of on something useful?

Many students found the posting of essays to key pals particularly frustrating. As Minda, a Tongan student, commented, "I'm just trying to write the same thing to eight people, to write the same thing in a little bit different ways. It's a waste of time."

Topics and Content

Following a suggestion I had originally made, the writing assignments for the semester were all built around the theme of "culture." This did not lead, however, to the kind of critical sociocultural analysis I had intended. Rather, the view of culture that pervaded the class was in perfect accord with the state's International Culture Center, where tourists from around the world sampled foods, music, and dance in a variety of Pacific Island villages. As Ms. Sanderson wrote on the board one day, in her class culture consisted of

1. climate
2. food/clothing
3. music/dance/entertainment
4. school/education
5. family/values

Students' essays thus tended to focus on describing tourist sites in the United States and their country, comparing food, music, and entertainment, and describing why they chose to come to this college. The essays were inevitably in a standard five-paragraph form, with the first paragraph introducing the three points (i.e., three main reasons why I want to get an education are . . .), the next three paragraphs explaining each point, and the last paragraph repeating the points. The essays were often coherent and cohesive, but to an outsider's eye lacked creativity or originality.

Students' Impressions

At the beginning of the class, students were generally excited about the opportunity to work with computers, which they saw as important to their academic success and careers. As one student told me, "Using computers, learning different things, e-mail, everything, I hated it before, but there's a saying, 'Conquer or you'll be conquered.' So I wanna conquer [rather] than be conquered, so I have to learn. I love it. I think it's so important for me."

As the semester went on, though, nearly all the students became frustrated at the tremendous number of assignments, many of which seemed peripheral to learning how to write. As Katina told me,

I think this class is called writing. Essay writing is what we should be doing, something that would help us learn how to write. Computer grammar exercises are a waste of time. The style of writing to key pals, just redoing the essays and sending them to the key pals, it's a waste of time. She doesn't see what's going on. On my essay, I always get 19 out of 20. But I fell behind because I couldn't do all those other assignments.

It was at the time of my second round of interviews, right in the middle of the semester, that student dissatisfaction seemed to be strongest.

Though the students were not accustomed to complaining to the teacher, nor the teacher accustomed to soliciting their views, the very fact of conducting the interviews seemed to prove a catalyst for change. On the one hand, the students, merely by having the opportunity to voice their opinions to a sympathetic outsider, seemed to gain confidence in their opinions. On the other hand, the teacher, consciously or unconsciously aware that the students were unhappy, now had to contend with the realization that their unhappiness was somehow coming out for inspection.

Thus, immediately after the second round of interviews (which were conducted privately between me and the students), Ms. Sanderson sent me an e-mail urging me to “help us strengthen the positive and improve, as well as help me continue to build the class rapport I’ve been working at the last couple of weeks.” Two days later, following the next meeting of the class, she wrote to me that

The class seemed a bit glum when we started and wouldn’t look me in the eye this morning. . . . A couple of them admitted they were discouraged with the key pal bit, so I told them this week’s key pal assignment is the last one with an assigned topic . . . after that it’s free correspondence as long as they get the information they need for a good comparison-contrast research paper and have at least 20 exchanges total among the two to four key pals. They seemed satisfied with that.

The change, which meant that students could now write what they wished to key pals instead of submitting letters to her for grades, greatly satisfied the students. Other improvements were implemented in the following weeks, including allowing the students a good deal of autonomy in shooting and editing their own video to be sent to the partner class. (The topics of the video—climate, food, music, education, and family and values—were still determined by the teacher.) The teacher posted the students’ essays on the World Wide Web, which brought them a lot of pride. And the students were finally taught how to navigate the Web to find articles related to their own interest, which they also enjoyed very much.

By the end of the semester, a number of students expressed general satisfaction with the class. Others, though noting some improvement, still had strong criticisms. The variety of student experiences is captured by looking at two students, Jon and Paolo.

Jon

Jon, 21 years old, was born in a small village of the Cook Islands. He has been a member of the church all his life and saw coming to this college as a natural but wonderful opportunity. He worked in construction for three years after high school in order to save enough money for him and his wife to come study at Miller College.

Neither Jon nor his wife, Linda (who was also in the class), had any experience with computers, and both seemed disoriented the first weeks

of class. Yet both worked extremely hard and received excellent marks. Jon beamed with pride as he talked of his accomplishments:

We learned a lot of tricks on the computer with Ms. Sanderson, how to do e-mail and things. The other day, I was in the computer lab, and there was some guy who has been here a long time and he didn't know how to do it. And it's my first year here and I was showing him how to do things!

Unlike some of the students, Jon did not find Ms. Sanderson overly strict. In fact, he found her to be lenient compared to his village teachers back home. In general, the limited opportunities that he had on his island made him highly motivated to succeed at Miller College and to appreciate what Ms. Sanderson had to offer. That he succeeded in learning how to write essays that were well-organized and even had a certain flair is seen by the following excerpt of his writing:

Each year, people from all over the world travel vast distances in search of a place that offers natural beauty, unique experiences, and an environment for relaxation. When thinking of such a place, the Cook Islands, which is a group of 15 tropical islands found in the South Pacific Ocean, comes to mind. The capital and largest of these islands is Rarotonga, the island of my birth. Rarotonga has an unblemished natural charm, pristine ocean, and unique culture, which offers welcome to people that arrive.

Due to its unspoiled state, the island of Rarotonga offers a unique opportunity for people from the crowded cities of the world to experience a different type of attraction. The rugged green mountain terrains offer excellent mountain climbing and fabulous cross-island trekking. The aroma of the lush bushes and native plants gives us this sense of natural beauty. On hot summer days people can easily take a nice walk to a waterfall, where their bodies can melt into the cold fresh mountain waters. And if one was still not satisfied, he or she could head for the white balmy beaches of Muri.

The course helped Jon learn the culture of power that is often inaccessible to minority and immigrant students (Delpit 1988). He mastered the genre of the five-paragraph essay and entered the discourse community of those who can produce an acceptable freshman essay. This is not a small accomplishment for many foreign students (though it should be noted that, in Jon's case, his previous education was also in English and, judging by his earlier essays, he came into the class with a fair amount of writing skill).

There is no indication, however, that in this course Jon was ever encouraged to tackle the larger problems of writing: for example, how to explain a difficult concept or argue a controversial point. He was not challenged to develop the skills of abstraction, system thinking, experimental inquiry, or collaboration that are crucial in today's economy (Reich 1991). He was not challenged to "talk and write about language as such, to explain and sequence implicit knowledge and rules of planning, and to speak and write for multiple functions in appropriate forms" (Heath 1992). Nor was he encouraged to think about his homeland

as anything but a tourist destination. Facing these challenges might have assisted Jon to master other genres and enter into a discourse community that values the content of writing and not just its form.

Paolo

A view opposite to that of Jon was expressed by Paolo, a 19-year-old student from Brazil. Unlike most of the students, Paolo had been in the church only a short time, joining a few months before he entered Miller College. Paolo had previous experience with computers, and, from the first week of class, he impressed me as a confident, quick-learning student who could practically finish an assignment before the other students had even figured out how to get online. His initial writings also seemed to be among the least stilted and most sophisticated in the class. But Paolo, who was extremely communicative and really enjoyed trying to express an idea, became frustrated with what he saw as the busy work of the class.

We have so many little assignments. They're not important. But because you get graded on every little thing, I lose my focus, I can't concentrate on the big things. I like to do more essay writing, just give us a chance to write more. . . . In the beginning I was motivated. I'm motivated in all my other classes, I like them. It's only this class I don't like. Reading—that's the best class. We sit around and discuss. It's personal, no machine.

Paolo resented the strict organization Ms. Sanderson imposed on students' essays:

She says, it's gotta be like this, especially like in the beginning of the paragraphs, when you have to write certain words, like linking words. The organization's gotta be like . . . that's hard for me, like you got the thesis statement, you gotta repeat, why do you have to repeat it in each one of the paragraphs? . . . It's boring. You start the essay writing on this, then you, by the middle of the essay, you just get bored, and you can't write any more.

It's funny because when you read all the essays or whatever we read, it's not like that, so it's different. I'm writing something that I don't read, not very often. Even though it helps a lot, it should be helping a lot to understand organization, but there are some things I don't think are needed.

Paolo was the only student who attempted to deviate from the preselected topics on his essays, once choosing to write about the contradictions between rich and poor in Brazil rather than describing tourist sites there. As I read over the paper, he confessed to me that he was worried that Ms. Sanderson would not accept it because it was not on the main topic. Later, when I asked what happened to the paper, he said that it had apparently been misplaced because he never received it back from the teacher.

Paolo often told me that he did not like to write, but I suspect that it was Writing (the course), not writing (the activity) that he actually

disliked. His early e-mail messages indicated that he enjoyed writing to communicate and was eager to express his views. His enthusiasm plummeted, however, during the first half of the semester, and was only slightly resuscitated when the teacher made some changes.

The Social Context of Learning

In trying to make sense of the teaching and learning practices I observed in Ms. Sanderson's class, I found it necessary to examine four overlaying contexts: (1) the church and college, (2) Ms. Sanderson's personal teaching philosophy, (3) the role of the English Language Program, and (4) the triangular relationship that developed between teacher, researcher, and students.

The Church and Miller College

The overall culture of the church and college, with an emphasis on fundamentalist doctrine and missionary zeal, is clearly an important part of the context that influenced how Ms. Sanderson chose to develop online learning projects. Students at Miller College lead a regimented life. In addition to the aforementioned dress code, they also make a commitment to abstain from physical familiarity outside the bonds of marriage; to eschew alcohol, drugs, and tobacco; and to regularly attend church meetings, support church leaders, and fulfill callings. Students are also required to complete a course on religious education every semester.

Concepts such as learner autonomy, creativity, and empowerment are at odds with Miller College's overall mission of developing obedient servants of the Lord and the church. In a sense, then, Ms. Sanderson's emphasis on discipline, order, and principles in classroom behavior and in writing are a perfect reflection of the overriding goals of the college.

Yet I believe it would be a mistake to view Ms. Sanderson's behavior as being strictly determined by the culture of the church. I met other teachers at the college who appeared to have a more open teaching approach. For example, I visited the course of a Spanish instructor who also teaches via computer-assisted activities, but in his case the online activities focus on student-student discussion rather than mastering of rules. To understand why such differences among teachers might occur, it is necessary to examine both Ms. Sanderson's personal teaching philosophy as well as the more immediate context of the college's English Language Program.

Ms. Sanderson's Teaching Philosophy

Ms. Sanderson occasionally talked about her own teaching philosophy, which emphasized prescribing structure to students. This philosophy apparently stemmed from her own preferred learning style. As she once explained to me,

When I was in college, I took a composition class. I didn't know what the teacher expected or required. I kept getting C's, then eventually I got an A. But I didn't know why. I was really bothered by the lack of structure. That's why I wanted this to be structured. Perhaps that's why I took German, because it was so structured.

The English Language Program

While Ms. Sanderson's teaching style is thus based in part on her own personal outlook, there is another factor that can account for differences in instruction between Spanish courses and ESL courses at Miller College. Unlike the American students in the Spanish program, the students in the English Language Program were newly arrived international students at Miller College. As Atkinson and Ramanathan (1995) have pointed out, ESL departments often emphasize a basic-skills approach to writing, rather than the more sophisticated approaches found in writing courses for native speakers. This seemed to be the case at Miller College. For example, Ms. Sanderson reported that a colleague in her department reacted very negatively to her idea to grade students on take-home essays, which students would have a chance to revise, since that would be grading them on "effort" rather than product. Ms. Sanderson took this advice to heart and decided to base most of her grade on the more traditional in-class essays (and other assignments such as typing and grammar).

The department indicated its conservative nature not only in its writing courses but also in its reading courses; the department's language lab recently jettisoned a meaning-based approach for practicing reading skills in favor of a computer-based activity involving memorization of isolated, decontextualized vocabulary words.

From a broader social view, however, it should be noted that the English Language Program within Miller College plays a particular socializing role beyond that played by ESL programs in secular colleges. The English Language Program is closely tied to the church's overseas role. Ms. Sanderson and other members of the department spend their vacations traveling to developing countries to teach at special church-sponsored institutes. Promising students from those institutes are then recruited to come to Miller College to study. They are required to abandon aspects of their native culture in order to conform to church policy. This entails learning appropriate rules of behavior, both inside and outside of class.

It is thus not surprising that they are subjected to strict discipline and in fact are expected to conform to a pattern found to have existed throughout the century, where minority and immigrant children are forced to endure frequent tests and quizzes; teacher-directed procedures for seat work, recitation, and reports; and numerous other rules and regulations that "enable schools to socialize and sort these students to meet the requirements" of society (Cuban 1993:250). In contrast, the

students studying Spanish at Miller College are overwhelmingly white, American, and native-English-speaking, and thus are more likely to fit another pattern noted by Cuban whereby opportunities for "individual choice, expressiveness, group learning skills, derivations of knowledge from many sources, joint student-teacher decision making, and student participation in both the verbal and physical life of the classroom" are generally reserved for American, upper-middle-class students since these "classroom practices and student behaviors . . . are tailored for future professionals, managers, and executives" (1993: 250–251).

Finally, it should also be mentioned that the historical relationship between the church affiliated with Miller College and the nonwhite minorities who are represented in the English Language Program has not always been based on equality and mutual respect. It could certainly be considered risky to the church's interests to foster a critical approach to education among groups of people whose focus of criticism could very well become the church itself.

The Relationship between Teacher, Researcher, and Students

The last element of sociocultural context I want to examine is the relationship that Ms. Sanderson and I developed, and the possible influence this relationship had on the class. As indicated earlier, our initial conversations were quite fruitful, and we both agreed to view this as a collaborative experience. In those early discussions, however, I failed to recognize what differences there may be between us, both in outlook and in background. And as these differences became more evident in the first few weeks of the course, I continued to shy away from the difficult task of acknowledging and working through our different views.

As Briggs notes, "Humanity is gained as the world, in the spaces between people, is acknowledged rather than denied or pushed away" (1996:6). I pushed our differences away rather than confronting them, and Ms. Sanderson collaborated in this process of denial. My failure to help bring about an "articulation of difference" made it difficult for us to heal the split between us (Minh-ha 1994, cited in Briggs 1996).

In a sense, it was the students themselves who rescued us from this situation when, in the interviews, they forthrightly shared their thoughts and opinions of the class. This created a context where Ms. Sanderson and I could no longer easily afford to ignore the difficulties, and Ms. Sanderson felt obliged to make some changes—even though the complaints had not been made to her directly. It seems that Ms. Sanderson's actions are explained in part by the metaphor of the *panopticon* (Foucault 1979). Foucault selects Jeremy Bentham's circular prison, with the prisoners on the periphery under a potentially constant, but unverifiable, gaze from the guards in a central observation tower, as a metaphor for how power is wielded and knowledge shaped in the real world. According to Foucault, the guards too are always subject to an unverifiable gaze,

not only from their supervisors but even from outside society, thus guaranteeing the control of the controllers.

Ms. Sanderson found herself caught up in the panoptic gaze of the outside research community. Simply knowing that I was interviewing the students, without being able to verify the content of the interviews, made her aware of the need to conform to outside standards. But while in Foucault's metaphor the outside and inside controllers are all part of one more-or-less homogeneous system, Ms. Sanderson was in a sense caught up in two competing panopticons—that of her college and church, with its own set of values, and that of the outside university research community, with a different set of values.

This does not suggest that the two sets of values are totally contradictory, and that only one set is accepted by Ms. Sanderson personally. Rather, it appears that Ms. Sanderson is trying to find her way through a number of different paths and thus eclectically applies a variety of approaches and perspectives. In this case, though, the triangular interaction of students, teacher, and researcher did seem to help introduce a critical perspective that resulted in Ms. Sanderson reassessing her teaching in midstream and making some necessary adjustments.

This minicrisis around the time of the second set of interviews, followed by changes in class procedure, helped bring about more openness between Ms. Sanderson and me, and we discussed more frankly our views about how the class should be taught. As the third round of interviews approached, Ms. Sanderson once again started to grow more distant, and she even sent me an e-mail message (that I did not receive until later) asking me not to come on the day of the interviews since the students were "stressed." After this third round was over, tensions receded and we spoke more freely again, and later began to engage in some interesting discussion about the class.

Thus over time, and with many pushes and pulls, we slowly achieved a degree of intersubjectivity, which, as Eugene Matusov points out, is "a process of coordination of individual contributions to the joint activity rather than a *state* of agreement between the participants" (1996:26, emphasis in original). The challenge for me, one I never fully met, was to maintain a critical perspective without attempting to impose it, to acknowledge the borders between us while still venturing into the borderlands (Rosaldo 1989).

Socialization and Situationally Constrained Choice

Susan Jungck reminds us that "computer literacy is theoretically an empowering concept; its development in practice can have contradictory effects" (1987:492). For Ms. Sanderson's ESL composition students, the introduction of computers into the curriculum did indeed have contradictory effects. It brought them some knowledge of basic computer skills, but it did little to advance their abilities of systemic analysis, critical inquiry, or cross-cultural collaboration. Instead, they learned to

come on time, follow rules of studying and rules of writing, talk and write about culture from a superficial standpoint, and use technology as a tool to accomplish busywork.

The students seemed aware that their success was due in large part to figuring out the rules of the game. As Jon told me, "This semester we didn't know what to expect. We sort of have an idea [now] of how the system works, and the teachers."

Students who did poorly in the class were not necessarily the worst writers but rather those who failed this socialization process. One example is Sun, a student from Korea, who told me early on that she really liked to discuss ideas and hoped that the class would include more discussion. Sun always tried to find ways to express her personal thoughts in her e-mail messages, even if that was counter to the particular assignment at hand. Sun either could not or chose not to keep pace with the frequent grammar exercises, typing assignments, and repetitive key pal mailings. She showed up to class less and less frequently as the semester continued. Another frequent no-show was Don, the Tongan student who could not complete the quizzes within the five minutes allotted. And then there is the case of Katina, who did well on the essays but complained about the large amount of busywork assignments; Katina received an F in the course despite writing an excellent final research paper that received a mark of 98 out of 100.

The failure of Katina, Don, and Sun should not be construed to mean that the course was not a success, at least from the point of view of Ms. Sanderson and the institution. The majority of students did make it through the initiation period and learned the appropriate behaviors and attitudes for Miller College. They also learned to write cohesive and coherent essays, with few controversial ideas but with correct transitional phrases. They are thus well prepared for their remaining courses at Miller College.

This result is explained well by Cuban's (1986, 1993) model of constancy and change in U.S. schools, originally developed for K-12 schools though applicable to the highly structured environment of Miller College. Cuban studied previous educational innovations over 110 years, including the introduction of film, radio, and television, and found that none of these innovations qualitatively altered U.S. education. Cuban suggests that deeply held cultural beliefs about the nature of knowledge, how teaching should occur, and how children should learn, steer policy makers and teachers toward certain forms of instruction, and that these forms of instruction are guided by the broader role of the schools to "inculcate into children the prevailing social norms, values, and behaviors that will prepare them for economic, social, and political participation in the larger culture" (1993:249). Technologies are thus almost always implemented in a top-down fashion, which leaves in place traditional teacher-centered instruction, especially when the students are members of lower-socioeconomic-status ethnic and language minority

groups. Cuban's model does not suggest that all teacher behavior is strictly determined from above, but rather that teachers have "situationally constrained choice" (1993:260), in other words, a degree of autonomy within the constraints of established school and classroom structures. This model accounts for variation among teachers (i.e., the fact that the Spanish teacher was able to choose a different approach than Ms. Sanderson) and also explains the type of changes that teachers are most likely to implement. According to Cuban, when changes are adapted they are most likely to affect issues of peripheral importance rather than decisions that "touch the core of the teacher's authority" (1993:270). Cuban points out that changes are also often made in the middle of the semester, once teachers feel they have already exerted a certain amount of control over the class.

In this example, we can see that Ms. Sanderson faced numerous sociocultural constraints, such as the strict disciplinary atmosphere of the church and college, the role of the college as a training school for missionaries, the relationship between the college and the international students, and the conservative expectations of colleagues in the English Language Program. Ms. Sanderson did indicate a willingness to make changes, but only in the middle of the semester and only on peripheral issues, such as how many papers students wrote, rather than on more central issues of control, such as who would determine the content of lessons. Adapting technology to her own sociocultural milieu and outlook, Ms. Sanderson continued teaching in a way that served to socialize international students into the roles established for them by the church and college.

In spite of the differences that we had, I certainly do not view negatively Ms. Sanderson's efforts to better her teaching. Rather, I endorse Cuban's view. "That teachers even initiate incremental changes in the face of considerable constraints speaks of their strong impulses toward improvement" (1993:287). Ms. Sanderson demonstrated her impulses toward improvement by devoting hundreds of extra hours to introduce new technologies to her students, by bravely inviting an outside researcher to observe her class the entire semester, and by admitting mistakes and changing some course policies that were upsetting to her students. Her courage to consider new ideas continued after the class. When I mailed her a report that included in summarized form many of the points from this article, she wrote me back saying that

I like the report very much. . . . Your words helped me to understand ourselves a bit more as well! . . . I am going to keep your report in my professional development folder where I can refer to it frequently and think about my search for self-improvement in teaching. . . . The learning experience was good for the class I taught the following spring term, with more reason in balancing the students' homework load and in emphasizing the writing, with the computer used more in support of learning as students felt they wanted to use it.

Later, we even coauthored a short paper that summarized what we had learned from the experience, including the need to involve students in decision making when integrating Internet-based activities into the curriculum.

The Internet and Education

It is important to consider what may be unique about this situation, and what might shed light on other educational situations and contexts. As indicated earlier, few qualitative studies have been published of online learning, but I can draw on studies of two other classrooms I have recently conducted (Warschauer 1997; Warschauer and Ortega 1997). These two courses, also involving language and composition, were taught at a public university by two instructors who had very different teaching philosophies than Ms. Sanderson; both of them could be said to favor the development of collaborative, critical communities of inquiry and learning. And in both cases I found that the teachers were able to harness the power of the Internet to bring about important positive results, including increased apprenticeship learning (i.e., more opportunities for students to learn from interaction with peers and teachers), the development of important new literacy skills (e.g., learning the genre of academic e-mail communication, learning to read and write hypertexts), and increased student motivation.

The differences between these classes and Ms. Sanderson's class can be accounted for by a number of factors, including the institutional differences between Miller College and the public university, the varied approaches toward language and writing that were prevalent in the different departments, and the personal and educational backgrounds of the teachers involved. Clearly, though, one important factor is the teachers' beliefs about the nature of teaching and learning, a factor elsewhere demonstrated as critical to effective uses of technology in education (see the ten-year study by Sandholtz et al. 1996). It appears that while societal and institutional expectations influence how technology is implemented, this takes place in large part through the shaping of teacher beliefs and attitudes. It can take a long time for teachers to change their beliefs, and their willingness to do so is greatly affected by attitudes within their department, institution, and school district. But when teachers are able to change their beliefs about the nature of education, new technologies can be implemented in ways that better tap their potential for aiding student-centered learning. In this light, it seems that Ms. Sanderson has begun a journey toward reconsidering some of her beliefs about teaching and learning, though whether in her environment she will continue to find the support for further change and development appears questionable.

Finally, I should point out that while no technology is all-powerful, bringing about changes independent of human agency, neither are technologies merely an add-on to human activity and relations. Rather,

the tool we use to complete a task inevitably transforms the task itself (Bateson 1972). For example, studies have shown that electronic discussion tends to feature more equal and balanced participation than does face-to-face discussion and can thus serve to democratize organizations (for a review, see Sproull and Kiesler 1991). Thus, at Miller College one might wonder whether students' use of e-mail and the World Wide Web could in some small way eventually undermine teacher-centered approaches, even without the kind of pressures that were brought about by the nature of this research project (just as authorities in China and Singapore worry about how use of the Internet might threaten centralized state control). On the other hand, whether in countries or in classrooms, the powers that be can generally find a way to bend technology to their own interests, and the Internet can be harnessed for spying on citizens or students just as readily as for empowering them (Janangelo 1991). I would conclude that the prevalence of interactive technologies such as the Internet can be one more element creating pressure for institutional change. But whether and how changes are implemented will depend on many other broader contextual factors.

Conclusion

As Cuban (1986, 1993) has documented, educational innovations, especially those involving new technologies, have been implemented in U.S. education in a top-down, teacher-centered fashion for more than 100 years. First film, then radio, and then television were all purported to have the potential to radically transform education, but none ended up altering the fundamental way schooling is carried out in the United States.

Online learning similarly has been touted as the key to grand transformation of U.S. education. And it may indeed be the case that online learning, when used by teachers committed to a critical perspective, has the potential to "support and enhance a project of possibility that actively challenges the hegemony of the dominant group" (Cummins and Sayers 1990:26).

This study, however, suggests that such results are unlikely without the teacher and students having some degree of critical awareness of the sociocultural influences on the classroom. Rather, it seems probable that online technologies will frequently be implemented in a restrictive, teacher-centered fashion, and that ethnic and language minority students may be the least likely to use computer networking in ways that enhance critical thinking and collaborative problem solving.

But this study also suggests that educators who do have a critical awareness can actively intervene—not as outside experts but as collaborative trainers and researchers—to help introduce this awareness and thus provide some small counterbalance to the weight of conservative institutions. Indeed, students' own resistance is likely to call forth such intervention. Efforts to induce change may be more effective, and

certainly humane, if we “recognize and articulate contradictions, complexities, and differences” (Briggs 1996:17) between researcher and classroom teacher, thus practicing the same critical, collaborative communication that we hope to bring about through involving our students in online learning.

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Notes

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1. *Top-down*, as used by Cuban, means controlled from above. This is distinct from another use of *top-down* in education, which can mean looking at things from a holistic perspective.

2. All names of individuals and institutions have been changed.

3. Citations and references for church-related books are not included so as to protect the anonymity of the institution.

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