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Voices in College Classrooms: The Dynamics of Electronic Discussion

During the past several years we have been studying classroom-based, computer-mediated communication and its potential to contribute to student learning. We have looked specifically at electronic conferences, forums for students and instructors made possible through networking, and also tried to assess how these new electronic spaces reflect the gender and power structures within the college classroom. We see these new spaces as becoming increasingly integral to our work as teachers and researchers. As teachers experiment more and more with ways to use both synchronous and asynchronous conferences in classroom settings, we strongly believe that teacher-researchers must turn their attention to examining how students "talk" in these spaces and determine if and how such discussion departs from traditional classroom discourse. And while many have extolled the benefits of electronic conferences, citing students' increased sense of community, the decentering of traditional authority within classes, and students' tendency to participate more frequently and freely in class discussions (Bump, 1990; Harasim, 1989; Hiltz, 1990; Schriner & Rice, 1989; Spitzer, 1989), only recently have teachers begun to examine systematically the kinds of discourse that characterize these electronic spaces and to explore the full range of possibilities that such discourse brings to classroom settings.

Building on earlier research (see, for example, Cooper & Selfe, 1990; Hawisher & Selfe, 1991; Selfe & Meyers, 1991), we present in this paper preliminary findings from a study we are working on with undergraduates. After discussing the implications of our findings, we then turn briefly to the teachers of these classes and examine their roles in the conferences. And, finally, we suggest what questions must be addressed if as a profession we are to create learning environments to support students as they gain intellectual perspective on "language, thought, and culture" (Shor, 1987, p. 19).

The Undergraduate Study

To begin, the current study examines the language practices of two undergraduate English conferences, each asynchronous — that is, students left messages on the network that others in the class could respond to at their convenience — and each a part of a grammar and editing class that Cynthia Selfe taught at Michigan Tech and a descriptive grammar class that Gail Hawisher taught at the University of Illinois. In each class the students participated in the conference for ten weeks, five weeks using their own names and five weeks in which they were encouraged to use pseudonyms.[1] This preliminary study sought to explore the gender and
power relationships among participants. Specifically it was designed at the outset to address the following questions.

What are the general patterns of student engagement in a class-based electronic conference? What are the topics a group of undergraduates choose to discuss in such a conference? What sorts of differences in male and female participation can be attributed to gender? What sorts of differences in the discourse occur when students use pseudonyms? How does the discourse seem to reinforce or depart from authority structures of traditional classrooms?

In an attempt to answer some of the above questions, we looked at several different variables that included 1) the number of messages participants sent; 2) the length of messages; 3) the number of references individuals made to other participants; 4) the number of topics participants initiated and the length of time that they lasted; 5) the number of times participants agreed and disagreed with others; and 6) the number of apologies participants made.

These variables were the same variables Selje and Meyers used in earlier studies and were drawn in part from discourse studies that attempted to assess gender and power relationships in face-to-face environments. Cross-sex research conducted by Pamela Fishman, for example, suggests that women maintain conversations by asking questions and encouraging others to continue (1978, 1983); West and Garcia's gender study suggests that men often are the ones who introduce the topics of conversation that continue to receive attention throughout the conversation (1988); and other studies suggest that dominant individuals usually disagree more with others than less dominant conversationalists (Brown & Levinson, 1978; Edelsky, 1981).

Of particular interest to us for the classroom research was a study conducted by Cheris Kramarae and Paula Treichler (1990) at the University of Illinois. In looking at the face-to-face interactions in a graduate humanities course taught by three white, male professors, Kramarae and Treichler noted not only teacher domination of the discourse but also domination by a small group of students who were predominantly male. Those who dominated the conversation were those who — naturally enough — spoke more and received more attention and responses to their spoken words.

For the study presented here we reasoned that by removing the teacher as a participant from the electronic conference, and by analyzing the amount and kinds of text students contributed, we might gain some understanding of the power relationships in a given class. Using earlier studies on oral discourse to inform these studies in electronic discourse, then, we used disagreements and the initiation of topics as indicators of verbal assertiveness and agreement, questions, and apologies as indicators of politeness.

The findings of the undergraduate research, while preliminary and certainly not representative of undergraduates as a whole, reveal different correspondences than those which have been noted in face-to-face classroom settings. Furthermore, the Selje grammar and editing class and the Hawisher descriptive grammar class reveal few corresponding patterns with one another. Essentially we found that:

1) The men in Hawisher's class averaged the longest messages overall whereas the women in Selje's class averaged the greatest number of messages.

2) The men and women in Hawisher's class contributed more messages and words during the real-name period whereas the men and women in Selje's class contributed more messages and words during the optional pseudonym period.

3) The men in Hawisher's class initiated more topics overall whereas the women in Selje's class initiated more topics overall. The men's topics in Hawisher's class lasted for a longer number of days whereas the women's topics in Selje's class lasted for a longer number of days.

4) The women and their ideas in both classes were referred to more frequently than the men and their ideas.

5) In both classes women also agreed more and posed more questions than the men in both conditions; in Selje's class they also apologized more frequently. (Hawisher's class only evidenced one apology and it was from a man.)

When we turned to the topics of the conferences, the conversational focal points of the discussions, we found many more similarities between the discourse of the two classes, which comes as no surprise perhaps, considering that both classes were grammar and
language classes. Hawisher's class initiated and maintained sixteen topics and Selfe's twenty topics. Among the common topics were Usage and Punctuation Problems, The Value of Education and Grammar Instruction, Non-Sexist Use of Language, Class Projects and Exams, Outside Reading, and the Use of Fonts.

But there were also differences. Hawisher's class, for example, began contributing poetry they had read and written outside the class; Selfe's class discussed their Scientific and Technical Communication Program and its place within the university. Both these topics, of course, are particular to the community in which these students live. For some reason there were several creative writing majors in Hawisher's class who found the conference a good place to share their writing, and in Selfe's class were Scientific and Technical Communication majors who wanted to talk about their major and its fit within a campus largely populated by engineering students. Other differences, however, also characterized the discussion, differences that might not be so obvious to outsiders analyzing the data.

Hawisher's class talked frequently about participating in class. One student wrote, "I like the way everyone gets involved in the [oral] discussions - I'm looking forward to learning both from you and from you." (This was addressed to the whole of the class.) Another student wrote, "There have been few other classes I have taken that encourage participation as much as this one."

Selfe's class viewed the classroom context somewhat differently. One student commented, "The way to overcome the oppressive system is to challenge the authority of the system. There is one person in our situation who retains power - Cindy. Take it up with her - she's not unreasonable; she'll listen." Another wrote, "Back to resistance. I think that part of the problem is figuring out what to resist. Like with grammar. We need to figure out what is important and what of the important things could be improved or changed for the better." In commenting on the conference itself, another student wrote later, "No matter what issues we discuss - regardless of the content - this entire conference is an example of political grammar and communication. It has all become a huge, wonderful experiment in how people respond to honesty and integrity. I think it's neat."

What interests us with these comments isn't so much that students were pleased in one way or another with the two classes, although, of course, that's always nice to hear. What intrigues us, however, is that over the past several years each of us has tried to change our approach to working with students in the classroom.

Hawisher has tried to create a classroom atmosphere in which both she and the students become learners-in-progress, so to speak, all of them tackling new problems and ideas, building on and contributing to the ideas of others, making new knowledge. Selfe has also tried to change her teaching. She has become more and more concerned with the inequities that surround teachers and citizens, and believes fervently in her responsibility to democratize the classroom with technology and to address issues relating to race, class, and gender. Both sets of students demonstrate in these conferences that they have been very much influenced by these theories of teaching that Hawisher and Selfe independently have been cultivating and developing over the years.

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Of all the findings in this study, then, the most startling to us as teacher-researchers is that even when teachers set aside these electronic spaces for their students, believing that they will become places inhabited primarily by students, the teacher retains his or her presence in the electronic space. Hawisher and Selfe in their separate classes dominated the discourse of the conferences every bit as much as the three white, male professors in the Kramarae and Treichler study (1990) dominated the oral conversation of their classes. The difference was that the male professors were physically present whereas Selfe and Hawisher weren't, although they were referenced in the electronic conferences more than any other single individuals in the class.

Implications for Teaching and Teacher Research

For the remainder of the paper, we want to consider our roles as teachers in these electronic spaces as well as our roles as teacher-researchers. As teachers we have not always thought as carefully about our goals for these electronic spaces as we might, despite our best intentions. To students, Hawisher and Selfe described these particular conferences as places where students should "feel free to discuss topics brought up in class, ideas about grammar that [they] come across outside of class, or questions [they] have in connection with the readings." And the students did exactly this — some of their discussions are thoughtful analyses of the role that language plays in their private lives, in the educational system that they inhabit, and in society as a whole. They also exhibit a certain playfulness with
written language that we as their teachers probably would never see otherwise. But if we think these spaces are uninhabited by teachers we need to think again — if anything, they demonstrate how pervasive teachers’ ideas and attitudes are with students, how much power teachers really wield. These electronic spaces may not be places where students engage in the “underlife” of a writing class to establish distinct identities, to use Robert Brooke’s (1987) term, so much as places where they with their classmates can convince their teachers that they’re worthy, thinking students, something which certainly has value in itself but may not be what we expected.

As teacher-researchers, we might investigate further the ways these electronic spaces may or may not correspond to Brooke’s understanding of “underlife” in the writing class. As a participant-observer in a first-year writing class, Brooke describes one woman’s approach to writing in her journal. “One woman told another,” Brooke writes, “that she’d written in her journal (which the teacher would see) an entry describing how hard the last paper was to write and how long it took her because that was the sort of thing the teacher wanted …” (1987, p. 146). In both the Hawisher and Sefte conferences, we see something of this: students writing what they believe their teachers will value. It is not so much an “underlife” activity in which students try to establish their identities as distinct from their roles as students but rather a teacher-pleasing attempt to conform to the expectations of their teachers. None of this is necessarily bad, mind you, but it is not so much resisting the norms of institutional behavior as complying with them.

As Hawisher and Pemberton (1991) have argued elsewhere, teacher-researcher studies are especially important for research on computers and writing, studies like those that Faigley (1990) and Cooper and Sefte (1990) have conducted, because even a decade after the introduction of the IBM PC so much of electronic technology is new to our teaching. And because of its newness, the profession continues to ask questions that foreground the technology rather than the students (Papert, 1987). As teachers we often ask what we can expect when we introduce computers or electronic conferences into our writing classes rather than asking how we can use electronic conferences profitably with our students. We need to pose our questions somewhat differently: we need to say, “Look, we’ve got this new technology that allows students to converse through writing with one another outside of class — how can we use the technology to further our goals for the class.” We then need to assess how well these new electronic spaces have served our goals in encouraging in students the kinds of writing, thinking, and learning that will serve them well in academe and the larger society around them.

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Here are some approaches we might begin to concern ourselves with as teacher-researchers:

1) We have a great deal to learn from those who do research on discourse in face-to-face settings, on organizational behavior (Mintzberg, 1979), and on social processes and computer-mediated communication (e.g., Kiesler, Siegel, & McGuire, 1984; Turner, 1988). We need also to examine the research on classroom discourse such as that conducted by Courtney Cazden (1988), Hugh Mehan (1979), Michael Stubbs (1976) and others. But, at the same time, we must also assess how electronic learning spaces differ from face-to-face environments so that we can set appropriate goals and develop appropriate methods of inquiry for these new spaces (Levin, Kim, & Riel, 1990). The discourse of the electronic classroom needs the scrutiny of researchers if it is to reveal more completely how students learn.

2) We can also involve students in the research, asking them to generate some of the questions they find worth pursuing. Let students use the transcripts from their conferences to study the discourse of their own community. We’re thinking of the kind of class research that Art Young (1990) conducted without the benefit of an electronic conference. In a technical writing class at Clemson, he and his students tried to assess how they learned while they learned, all the while writing of their experiences and their creation of a classroom community.

3) We need to find out more about how human beings build this elusive phenomenon called community. We were very much aware in analyzing the data from the Hawisher and Sefte conferences that we know little of one another’s community and the qualifications needed to be an insider in each community. How participants build community over the network and how the ties of community manifest themselves in face-to-face encounters outside of the network and in the classroom itself are areas that sorely need study. Electronic communication with its written transcripts allows us to explore the concept of community in ways that have eluded us, but we must turn our attention to it.
4) And, finally, we need to know how students profit or suffer from participation in many conferences. Selfe's class had participated in conferences before; Hawisher's hadn't. Hawisher's class, however, was also using InterChange, a synchronous system, in the class along with the asynchronous conference. Both these factors may well have influenced patterns of participation in the conference. Also, this past semester many faculty and graduate students in the English and Humanities Departments at the University of Illinois and Michigan Tech are using e-mail for discussion and electronic conferencing with their students. One wonders if there is an optimal number of conferences in which human beings can participate beyond which the pedagogical benefits of the conference diminish.

For us, this study, along with our continuing work with electronic conferences, teachers, and students, raises many more questions than it begins to answer. It has forced us to reconsider some of the preconceptions — and perhaps misconceptions — that we hold as English teachers and as researchers. It has allowed us to see our teaching through the lenses of our students' writing, both in Houghton, Michigan and Urbana, Illinois.

**Note**

1. The Selfe conference was held in connection with a Humanities undergraduate grammar and editing class. Eighteen students participated in the conference, eight men and ten women. The Hawisher conference was part of an English undergraduate descriptive grammar class. Nine students participated in the conference, four men and five women. At the start of each conference students were given the following instructions: "In this electronic forum, feel free to discuss topics brought up in class, ideas about grammar that you come across outside of class, or questions you have in connection with the readings. This is a place for you to help each other understand more about grammar and language so you should also respond whenever possible to the comments and ideas of others." Additional instructions told them not to "be afraid to disagree or argue, to explore or explain, to question or speculate ..." Students were further told that it was a public conference to be used for research but that their names would be kept confidential.

**References**


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