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TRADITIONAL CLASSROOM CULTURE AS A FOUNDATION FOR RESEARCH IN E-LEARNING ENVIRONMENTS

Abstract

An ethnographic examination of graduate education students' adaptation to a new interactive, real-time, televised classroom in the southern U.S. pointed to the value of using components of traditional classroom culture to understand e-learning environments. In this paper, several liminal areas through which students traversed are discussed. Students struggled with aspects of classroom props, instructor roles and class participation because they differed significantly from the traditional learning environment. Implications of this research for research and analysis of online learning environments are outlined.

According to Stone and Farberman (1970), humans are not simply passive beings subject to the persuasive forces that act upon them. Rather, they are actors who choose the degree to which they allow forces to effect their decision making processes. It is interesting not only to recognize the strength of outside forces, but also to recognize the way in which those forces subtly seep in and become inside forces (hooks, 1994; McLaren & Giroux, 1995). Such internalized forces, be they positive or negative, become such a natural part of one's being that one no longer refers to beliefs, expectations, or understandings as conscious forces. Indeed, they become internalized as lived cultural experience that guides our daily choices and influence how we construct meaning in our lives and in our learning environments (Bronfenbrenner, 1986; Geertz, 1973; Mannheim, 1970).

Spradley and McCurdy (1972) spoke of this influential facet of culture when they referred to culture as "the knowledge people use to generate and interpret social behavior [where social behavior is defined as] ... any individual's action that other people have learned and understand (p. 8)." Classrooms and the social transactions that occur within them carry strong culturally based expectations (Barr & Dreeben, 1983; Khleif, 1971; Metz, 1978; Spindler, 1982). Such expectations are understood and easily processed by individuals who have incorporated the requisite cultural

knowledge into their way of being in the classroom. That remains true as long as the classroom environment contains components of traditional culture (Ben-Peretz & Halkes, 1987). If the environment changes in a manner such that students' (or teachers') cultural frameworks do not provide sufficient responses, their comfort levels and ability to function effectively may be significantly reduced. Thus, when the classroom environment changes, participants must consciously process how to do things now that they had previously been doing unconsciously (Jackson, 1968; Salomon, 1979).

We suspected that if students were placed in a learning context that differed enough from the traditional classroom what had previously been familiar to them would become unfamiliar (Erickson, 1986) and that students would have to develop new strategies in order for their teaching and learning experiences to be successful. In fact, through an ethnographic study that we conducted during the inaugural year of a 2-way interactive televised distance-learning classroom, officially known as the Interactive Distance Learning Studio (IDLS), our suspicions were confirmed.

Experience with traditional classroom culture provided adult students with a set of tacit assumptions about how to act during class discussion, how to relate to the instructor, and how to relate to their classmates. These tacit assumptions and related behaviors, however, did not provide sufficient foundation via which to adapt to the IDLS. The IDLS placed a technological filter between teachers and students, and between students and students, that fostered a significantly changed learning environment.

In this paper we will demonstrate the value to researchers of investigating the way in which elements of traditional classroom culture can be used to guide one's understanding of students' adaptations to new technologically-mediated learning environments. A brief description of the study and setting will be followed by examples of the complexity faced by adult learners transitioning from traditional classrooms to non-traditional ones – specifically, in this case, a 2-way interactive real-time televised classroom with two different classroom locations, and one instructor.

The Study

Traditional ethnographic and qualitative research methods were used to gather and analyze data (Agar, 1996; Bogden & Biklen, 2004; Maxwell, 1996; Miles & Hubermann, 1994). The application of symbolic interactionism (Blumer, 1966; Charon, 1998; Prus, 1996), as an additional framework for data analysis, yielded interesting results. The data were gathered during a one-year ethnographic study of students (N = 278) taking graduate education classes (13 classes) via the IDLS. Courses included in the study varied significantly in course content, course objectives, teaching style, and student responses.

A database was constructed to house open-ended survey information that was completed by 140 students. The Ethnograph v.5.3 was used to assist with the analysis of data gathered from more than 400 hours of participant observations in classrooms, semi-structured interviews and informal conversations with students and faculty, weekly e-mail correspondence, focus group interviews, and transcripts of

videotapes. Thematic coding, frequency counts, and frequent debriefings between ethnographers L. and R. Schmertzing contributed to interpretation and ongoing analysis of the data (Spradley & Mann, 1975).

The Setting

The setting description that follows not only outlines the technologically mediated learning environment in the words of the participants it is also a representative sample of data used as evidence to support the importance of interactions when students are trying to make sense of new learning environments, a topic that is routinely attended to in the distance education literature (Amundsen & Bernard, 1989; Moore & Kearsley, 1996; Scott & Rockwell, 1997). NOTE - Citations are codes to keep the participants anonymous and allow researchers to track down who said what, when, where and why - See reference HFt M I v4.

Peter: It's like an interactive TV thing with a class in [city A] and a class in [city B] and you are able to communicate with each other. (HFt M I v4)

Mary: And, if you want to talk, it is like a game show, you buzz in, the camera zooms in, and you go for it. It's fun to watch people pushing their buttons to buzz in, but it's not so fun when you have to do it. (RFt F I v14)

Peter: And the professor is usually in the [city A] room, but sometimes she goes over to [city B] and you have to watch her on TV. (HFt M I v4)

Mary: When I first walked in and looked around the room I thought, "Oh my God, it's just like the New York World's Fair." I couldn't believe it. I had seen this kind of futuristic plan for education years ago, but I had no idea I was going to ever be part of it. Then I started to wonder, "How is this going to work?" I was already uncomfortable because I hadn't been in school since 1983. I had heard the professor for the class I had was tough, and then to be thrown into a high tech situation where you have to press the button to communicate. You know what I did? (HP F I 250a)

I just laughed. I was obviously not schooled in that type of an environment. In fact, that first night I noticed when the professor intended for us to talk as you would normally do in a class, people tended to act as if they were really camera shy. No one would talk and when you looked at the peoples' faces at [city B] it was almost like they were looking up into the camera going, "like, oh duh." (HP F I 250b)

Tradition Meets Technology

Recognition of the differences between the traditional classroom environments in which students were schooled and the IDLS were not as obvious to most students as one might think. In fact, when asked about the differences between having class in

the IDLS and having class in a traditional classroom students would often comment that "it was not that different," yet they would follow the comment with a statement that specified a difference, e.g., "It was not that different, but we don't have a real teacher in our room," or "I don't know, it's not really different – we just watch television." Without knowing it, students would point to the traditional elements of classrooms or new elements of the IDLS and begin to realize the significance of the difference. Students commented routinely about the adjustments they had to make in relation to technological props, instructor roles, and class participation when having a class in the IDLS.

Technological Props

Traditional classrooms have always had props. Props are chalkboards, pencil sharpeners, desks, and so on. They are the physical aspects of the environment with which participants come into contact (Bennett & Bennett, 1970). The most frequently mentioned student identified props in the IDLS were cameras, microphones (often referred to by students as "buttons"), and monitors. One student, William, identified the props in this way.

> There are TV monitors in the front of the room. There's one off to the side towards the back of the room. There's a camera on top of at least one of the TVs in the front of the room. On the desks about every two or three students there's a microphone with a button and so if you want to talk or ask a question then you have to press your button (HFt M I s11.8).

Some students were not sure how they felt about the technological aspects of the IDLS. "Many of us felt much the same – that it was a bit 'strange.' No one was vehemently opposed to the structure, it just felt strange" (RFt F E 68.9.7). "I kept feeling as if I were 'on the spot'. There's a natural dislike of being on camera" (PH F E sd11.8.31). In an e-mail one student wrote, "I didn't speak for a couple of weeks because I didn't want my face to pop-up on the screen" (HP F E 5.17). The new technological props in the classroom affected students differently than the old, familiar chalkboard. Below, we draw parallels between the chalkboard in the traditional classroom and the technology in the IDLS in an effort to demonstrate why students were affected differently by the new technology.

When students were occasionally called to the blackboard in traditional classrooms they physically got up out of their seat, moved their body to a prominent place in the room, engaged with the content as they wrote something on the board, and then returned to their seats. In the IDLS, the procedure is similar, a student physically reaches up and touches the mic, it technologically positions them at the front of the room, they engage the content when they speak, and then they touch the mic to be technologically returned to their seat. The parallels are simple enough to understand, but the differences are not.

With the chalkboard, students have some sense that they are in control of their destiny. They walk, they write, and they return to their seats. Students can even turn

their backs to the class as they write on the board. They are comfortable using the props in a traditional classroom, not just because they have done it for years and know how but also because they control the interaction (Shultz & Florio, 1979). Our data indicate that with the new IDLS technology students believed they were not in control when engaging the microphones. When they touched the microphone button, the technology transported their image to the front of the room (on the TV monitor) and thus they felt that something had been done to them, that in some way they had lost control. Another difference between the chalkboard and the new IDLS props is a trip to the chalkboard was a special occasion and did not occur that often, whereas the technology of the IDLS must be engaged every time a student wants to participate in the class discussion.

Heidi, an energetic student at the remote site, discussed how the props in the IDLS affected her.

> The other thing that stands out is the having to push that button to speak. I mean, you just… Mmm (deep breath). Well, I think I am fairly introverted and if anybody [is] even more so than me, they may never speak up because of that intimidation of pushing that button and having to wait your turn. And when should you push it in order to make sure that you are heard, and then knowing that camera is going to come focusing in on you… And this group of people that you don't even know or see are going to be staring in at you. (RFt F I 14.555)

Thus it is clear that for Heidi and other students in the IDLS, the culturally based expectations associated with the procedures involved in handling traditional classroom props had not prepared them for the experience of handling the new IDLS props. Based on their traditional classroom experiences, students expected technological aspects of the room to be passive not active.

Margaret, a student who was often in the classroom without the instructor, mentioned two other ways that the technological features of the IDLS met aspects of traditional classroom culture. She clearly noticed the time it took to use the technology and the pace it set within the classroom.

> There is no spontaneous interaction flow in the classroom. [You] have to wait till the camera zooms in for your turn so both campuses' classmates can see and hear what you are saying. In the traditional classroom, everybody in class is involved in the class engagement at the same time – no need to wait… Distance class is TIME CONSUMING. One hour of knowledge conveying flow in a traditional classroom will take two hours in distance learning. (DP F E 9.19)

Students are traditionally in class for a predetermined amount of time. They are conditioned to expect certain amounts of academic experiences to occur during that time. When something causes the time/experience ratio to change, students must adjust their pacing and their expectations (Jackson, 1968).

The new technological props also changed the rhythm and order of the traditional classroom (Mehan, 1980). There was no longer a student/instructor/student inter-

action. Interaction was now technologically mediated such that not only was the sequence of interaction different, but the pacing as well. The interaction sequence became prop/student/prop/instructor/prop/student/prop. For students the unfamiliarity and awkwardness of this process caused an interruption of the usual flow of their thought and action processes. Previously, students guided by the patterns of traditional classroom culture could interact in class without having to consciously consider the nature and sequence of their actions. Technological mediation of those actions in the IDLS drew attention to them, however caused students to stop and think. In traditional classrooms, students' interpretations of language, behaviors, and gestures that came naturally after years of conditioning in traditional classrooms guided the pacing of their interactions (Ben-Peretz & Halkes, 1987; Erickson & Mohatt, 1982; Shultz & Florio, 1979). The introduction of the technology in the IDLS as a mediating filter between what had previously been direct personal interactions created a situation where students were not now sure of how and when to act. Their adaptation to that liminal environment was often a long and complicated process that depended to a significant degree on the extent which the instructor to helped students understand their new learning environment.

Instructor Role

In the traditional classroom the instructor is the one who directs and controls classroom activity (Borman, 1978; Dickinson, 1985; Shultz & Florio, 1979). Many students in the IDLS spoke about the value of establishing a personal relationship with an instructor. Students noted that the instructor not only controlled classroom activity but also (and more importantly to many IDLS students), evaluated their learning and contributions. Such a view of the duties and responsibilities of the instructor is the same as in views expected from students in traditional classroom culture (Barr & Dreeben, 1983; Mehan, 1982).

In traditional classroom culture, the teacher role includes controlling the classroom, evaluating student performance, and acting as the gatekeeper of knowledge (Jackson, 1968; LeCompte, 1978; Metz, 1978). The students in the IDLS often got confused about the teacher's role related to controlling the classroom and evaluating students, though not about the teacher's role as knowledge gatekeeper. Monica, a student who rarely had the instructor at her site, expressed this concern

> But also in class sometimes, you know, we'll all, four or five of us will push the button, but you never get a chance… I feel like we're graded on our participation but you push the button and you never get to speak without having to absolutely raise your hand and, you know, really put up a fuss to say your little comment. So, I know that has happened to me three or four times and I've gone through the last two classes without making comments and I know that is part of the grade in there... And, you know, you're just in a backlog. So, I'm not sure how she can really grade us on our participation because we don't get a chance to. That is what worries me. I'm not worried that I didn't get to share what I thought because that is okay, I help myself by going

> through the process without analyzing it and thinking about it, now I know what I feel about it… but I worry about that grade and the fact that she never knows I ever punched that button. (RFt F I v.08)

Monica did not feel bad that she did not get to speak. In fact, she recognized the learning that she had gained anyway, but she still struggled with what the instructor would think of her and, consequently, how that would affect her grade. Students expected their instructors to know what was going on in class. The technological filter, through which student/instructor interaction passed, changed students' perceptions of the instructor's ability to adequately maintain the evaluator role.

Traditionally, teachers have been the primary decision-makers in classrooms, doing clearly more powerful than students, and assigned greater responsibility for shaping the activity of the classroom (Erickson, 1986; Jackson, 1968; Mehan, 1980). Students are accustomed to an environment that is centered on the activity of the instructor at the front of the classroom (Erickson & Mohatt, 1982). The expectation is that she is in front of the class leading, and students are in the audience following her directions.

Gage was surprised that her teacher was not in her room and surprised at her own reaction.

> When I went into that class, I had no idea that I wasn't going to have a teacher. I did not know. And that was… I think that kind of goes back to the fact that I didn't realize that I had to concentrate on that lady on the TV, this was it, this was all you were going to get. There was the temptation to make comments to your neighbor because it is just a TV. It is not going to tell you to shut up or it is not going to glare at you or anything, you know, the temptations… We talked among ourselves. In that class, we would turn around and talk and when she gave us an assignment, we worked together on it. And I noticed that the [host] campus didn't do that. Maybe because the teacher was there and they weren't supposed to do that. I felt like we were on our own and the *rules were not there in that class* [emphasis added]. (RFt F I v08)

For Gage, the instructor was no longer a person in control, she was the "lady on TV." She wasn't standing in the front of the room; she was no longer more powerful than the students. All the normal cues from the traditional classroom were gone, "not going to tell you to shut up … or … glare at you." Students now seemed to have the responsibility for shaping the activity of the classroom. The foundations upon which they were accustomed to both building and understanding the teacher and constructing a relationship with her had been removed. Obviously, when the instructor was removed from the classroom and interaction was mediated by technology, students had to re-interpret what it meant to be in class, to have a teacher who may not be physically present, and to succeed in their new learning environment.

Class Participation

One of the routine ways that students interact with the content of a course is by participating in class discussions. Traditional classrooms provide a familiar, stable social context in which these discussions can occur (Erickson & Mohatt, 1982; Jackson, 1968). Most students, sharing the same classroom space, quickly learn how to 'read' each other and win approval from both the students in the classroom and the instructor (McDermott, 1977; Shultz, Florio, & Erickson, 1982). Such an environment adds to the feelings of safety and freedom and allows students to negotiate their participation (Erickson & Mohatt, 1982; Philips, 1972).

Classroom rules that are learned early in a person's educational experiences remain basically the same throughout their years in school. Jackson (1968) lists these ubiquitous rules: "No loud talking during seatwork, do not interrupt someone else during discussion, keep your eyes on your own paper during tests, raise your hand if you have a question" (p. 8). And he notes that, "even in the early grades these rules are so well understood by the students that the teacher has only to give very abbreviated signals" (p. 8). Students are also familiar with the single speaker at a time rule (Shultz et al., 1982). Moreover, there is an understood interactional etiquette that guides students in class participation (Erickson & Mohatt, 1982; Mehan, 1982; Philips, 1982).

In the traditional classroom it is natural to do what Shultz et al. (1982) refer to as backchanneling. Backchanneling is a term assigned to methods for giving listening feedback. Students give other students nods and utterances as signs of confirmation that they are listening to them. Students also use the listening feedback they receive from others to gain verification of their own contributions (Shultz et al., 1982). With these continual exchanges, students in traditional classrooms learn to explore ideas through a sharing, interactional process. Lynn was quite aware that the changes the IDLS made to classroom communication influenced the exchanges and limited the collaboration of ideas in her class.

> In a traditional classroom, when the discussion starts and students do go off from each others ideas and comment on that and it does get deeper and deeper into the issues, and more questions come up… But in this classroom, when you have the teacher having to switch off and on, you can lose that train of thought. And there have been times when I thought of something because somebody said something, but by the time she switches cameras, I've lost it. And, so after a while… the last few classes, I just think, "Just sit back and be quiet." I get tired of the struggle of trying to remember, sometimes I'll sit there and I'll make notes on my paper so I'll try to remember what I want to say but then I get tired of trying to battle my way in, you know… It is kind of like a traffic jam, and after a while, you get tired of battling the cars, and maybe you move to a rural area… (RFt F I 111)

Lynn was longing for the traditional give and take of discussions that occurred in traditional classrooms. She finally quit trying to contribute because what she had to do to make her contribution required more from her than she was willing to do.

Although she did not sit back as Lynn did, Maggie, a student who is usually in the room with the instructor, was concerned about the loss of freedom that accompanied the procedures that were occasionally referred to as "button wars."

> There's not this sense of, if we're in a classroom, you and I, and many others in the class, we can just talk freely… And move in and out of conversations without being invited to do that. It would be probably more of a normal thing. I think in distance learning you cannot do that. I've seen a couple of times where people have pushed buttons at the same time, from [both sites], and they say, "Oh no, you go," and "Oh no, you go." And it tends to be like, "Well, maybe I didn't have anything to say," when it comes back to me, because it's no longer spontaneous. I think that discussions have really lacked, because of the environment of the system forming at this point in time. (HP F I p4.13)

What started out as a well-intended contribution to class got side-tracked because of the awkwardness associated with trying to navigate discussion through a technological medium. Maggie's awareness that she can't "move in and out of conversations without being invited" is quite different from the traditional ways she was accustomed to communicating in class. She expressed her felt need to have someone "invite" students into discussions in the IDLS. Maggie's concerns indicated that there was, on occasion, a need for a moderator where there had been no need in traditional classrooms.

Even within traditional classrooms "effective participation in the classroom entails recognizing different contexts for interaction and producing behavior appropriate for each context" (Mehan, 1982, p. 72). In any context the correct form of contributing has to match the correct academic content in order to keep the interaction socially acceptable and natural enough to be valued (Dickinson, 1985; Mehan, 1982; Metz, 1978).

Conclusion

Traditional classroom culture is a powerful force for guiding classroom behaviors (Spindler, 1955, 1987; Kimball, 1974), though students are usually not aware of it. As we have seen, it often influenced the interpretations that adult students made about the IDLS classroom environment. In this paper we have briefly demonstrated the ways in which traditional classroom culture influenced students' understandings of various elements in the IDLS. We believe that what we have found for the interactive televised distance learning environment applies to other e-learning contexts, specifically online learning environments. The traditional passive props of the classroom become active participants in online classes. For example, in a discussion forum, students might make their writing public as they had on a chalkboard, yet in

an online environment the computer swallows their work, makes it disappear momentarily, posts it to a public discussion board, and the student who wrote it not only has no visual cues via which to gage his classmates' reactions to his "comment" but also, at times, has to find where it went and wonder who can see it. Thus the computer is an active participant in online classes. In online learning environments the time/experience ratio is determined by a number of factors – the student's reading/comprehension ability, their organizational skills, their surroundings, and their familiarity with the technological environment. In the online environment traditional sequences of interaction are restructured and often not clear to the new online student. Typically, students do not see their instructor as s/he controls or evaluates. Much online coursework does not call for the instructor to be the gatekeeper of knowledge. In online classes, students share responsibility for constructing knowledge and the environment itself, whereas in traditional classrooms these tasks were primarily the responsibility of the instructor. In traditional classrooms, verbal skills were dominant; in online learning environments writing skills are primary. Such shifts in patterns of interaction and foundational learning skills are best discovered and analyzed by comparing traditional classroom culture, which guided classroom behaviors and created taken-for-granted patterns of interaction for most contemporary learners' lives, with the emerging culture of new e-learning environments, which will increasingly guide patterns of teaching and learning as we move into the "classrooms" of the 21st Century. Making the shift may not be as easy as some have suggested.

Much research is needed to help instructors, designers, and students recognize the areas of transition that may be difficult and then design instructional solutions to prepare students prior to entry into the formal learning environment in order to prevent loss of learning during the time students need to adapt. Awareness of traditional classroom culture and the use of it as a comparative base to provide understanding and insight into new e-learning is essential to the success of such research.

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HFt M I v4. H = site relation to university. Ft = city in which the site was located. M = gender of the participant. I = type of data. V4 = identifier code to find the passage.
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