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Do College Students Participate More in Discussion in Traditional Delivery Courses or in Interactive Telecourses?

A Preliminary Comparison

Introduction

An arena of social interaction that has escaped the attention of many faculty members is one in which they participate frequently. In the college classroom, patterns of interaction develop as students and instructors negotiate a definition of the situation (Goffman, 1959, 1961; McHugh, 1968) with regard to classroom norms. Karp and Yoels (1976) first identified the consolidation of responsibility as a major norm in the college classroom. The consolidation of responsibility means that, regardless of class size, a handful of students (five to seven) account for the vast majority of interactions in any given class session. Fritschner (2000), Howard and Baird (2000), Howard and Henney (1998), Howard, Short, and Clark (1996), and Jung, Moore, and Parker (1999) also found the consolidation of responsibility to be an operative norm in traditional delivery college classrooms.

Faculty members ought to be concerned with the percentage of students participating in their courses, because there is substantial evidence to suggest that students learn more when they are actively engaged with the material, their instructor, and their classmates (see for example, Astin, 1985; Johnson, Johnson, & Smith, 1991; Kember & Gow, 1994; McKeachie, 1990; Meyers & Jones, 1993). A second reason for concern is that research suggests that critical thinking is fostered by students' active participation in learning (Garside, 1996; Smith, 1977). Instructors can also use classroom discussion to lead students through different

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levels of learning (Brookfield, 1995; Steen, Bader, & Kubrin, 1999). The increased use of distance education delivery formats for college courses is a third reason to be concerned with student participation in classroom discussion. While asynchronous (e.g., via listservs) or synchronous (e.g., via chatrooms) online discussions have often been suggested as a substitute for classroom interaction in web-based courses, telecourses present unique problems for student engagement. Instructors need to consider how the mode of delivery impacts the level and quality of student participation and student learning.

Literature Review

Previous studies of participation in discussion in traditional classrooms have focused on issues of student gender (see Auster & MacRone, 1994; Constantinople, Cornelius, & Gray, 1988; Cornelius, Gray, & Constantinople, 1990; Crawford & MacLeod, 1990; Fassinger, 1995; Karp & Yoels, 1976), student age (Fritschner, 2000; Howard & Baird, 2000; Howard & Henney, 1998; Howard, et al., 1996), instructor gender (Brooks, 1982; Fritschner, 2000; Howard & Baird, 2000; Howard & Henney, 1998; Pearson & West, 1991; Sternglanz & Lyberger-Ficek, 1977), class size (see, for example, Constantinople, et al., 1988; Crawford & MacLeod, 1990; Fassinger, 1995; Howard, et al., 1996); teaching techniques (for example, Nunn, 1996); course level (Fritschner, 2000); and student age (Fritschner, 2000; Howard & Baird, 2000; Howard, et al., 1996; Howard & Henney, 1998; Jung, Moore, & Parker, 1999). A largely unexamined aspect of student participation in classroom discussion is that of participation in distance education courses, especially in comparison to traditional delivery courses.

In 1997–98, almost 44% of all higher education institutions offered distance education courses (Council for Higher Education Accreditation, 2000). Wirt (2000) reported that 91% of all public 2- and 4-year postsecondary institutions either had already scheduled or planned to schedule distance education courses within the next 3 years (p. 84). While much of the focus has been on web-based courses, the older telecourse format of distance education has also experienced a resurgence in popularity with new technology that allows both audio and visual interaction between different sites. Some studies have attempted to show that students in interactive telecourses perform as well or better than students in traditional delivery classes (Cohen, Ebeling, & Kulik, 1981; Moore & Thompson, 1990; US Congress, 1989; Wetzel, Radtke, & Stern, 1994). Other studies have attempted to compare student satisfaction with interactive telecourses versus traditional delivery courses. Spooner, Jordan,

Algozzine, and Spooner (1999) found similar levels of student satisfaction. Gallagher and McCormick (1999) found that students in interactive telecourses preferred traditional delivery courses. McHenry and Bozik (1995) found that students in interactive telecourses were unhappy with the technology, could not hear origin site classmates, had problems with getting cut off when speaking, and had difficulty hearing the instructor. Briner, Summers, Dean, Bink, Anderson, and Gelder (1996) found that female students were more dissatisfied than males with the logistic/management aspects of the course. They also found that students with more experience in telecourses had significantly lower rates of instruction satisfaction and instructor satisfaction.

In her review of distance education programs around the nation, Horn (1994) found low levels of interactivity in telecourses. She attributed this to one-way communication, poor presentation methods, and a lack of standards. Horn concluded that, as currently practiced, both telecourses and web-based courses compromised human interaction. Comeaux (1995) found that communication and interaction in telecourses were hampered by the cameras, the microphones, and by the students seeing themselves on the television monitors. McHenry and Bozik (1995) found that low levels of participation in discussion from students at receiving sites were typical. Ritchie (1993), though not identifying it as such, found the consolidation of responsibility to be operative in the three sections of the one telecourse that she observed, with 24% of students accounting for 100% of the interactions. Ritchie also reported low rates of interaction overall and student dissatisfaction with communication and the impersonal nature of the course. Bonnell (cited in Blumenstyk, 1997) argued that female students, in particular, were likely to be hindered by technology and being on camera. While these studies sometimes compared interaction at the origin site of telecourses with that at receiving sites in the same course, none compared interaction in telecourses with interaction in traditional delivery courses in the same study. This study research seeks to fill that void with a preliminary comparison of the nature of interaction in interactive telecourses versus traditional delivery college courses on a single campus in the same semester.

Research Methods

When investigating interaction in the college classroom, most studies have relied on a single methodology, either observation or survey. Studies that have utilized multiple methods have found discrepancies between what students say or believe about their participation and behav-

iors actually observed. In particular, Karp and Yoels (1976) and Howard and Baird (2000) found that in self-report surveys students have a tendency to significantly overestimate their level of participation in discussion. Therefore, I utilized two research methodologies in this study: nonparticipant observation and structured interview. Observation was used to determine the actual patterns of interaction in the classroom, while guided interviews were used to gain insight into student and faculty perceptions of those patterns.

This study was conducted in the fall semester of 1999 at Indiana University Purdue University Columbus, a commuter satellite campus of Indiana University Purdue University Indianapolis, a major state university with an enrollment of approximately 25,000 students. The Columbus campus had an enrollment of approximately 1900 students in the fall 1999 semester.

Nine students in an Indiana University Purdue University Columbus undergraduate social science research methods course were trained in nonparticipant observation techniques. Each student and the instructor non-randomly chose a course to observe which fit their schedule. The courses represented a wide range of disciplines.¹ Five of the courses were 100 level, two were 200 level, and three were 300 level. Five courses were taught by male instructors and five by female instructors. Two of the ten courses (one taught by a female and one taught by a male) were the receiving site of an interactive telecourse originating at Indiana University Purdue University Indianapolis, the parent campus. These were interactive courses, as the students at the receiving site were able to visually and verbally interact with the professor and students at the origin site. The inclusion of these two small enrollment (combined $N = 8$) courses enabled us to make some very preliminary comparisons of interaction in traditional college courses and in telecourses.

Four sessions of each of the ten courses were observed in the first 6 weeks of the semester. Observers used a seating chart to record the gender and approximate age of each student. Observers visually identified students as being either traditional students (less than 25 years old) or nontraditional students (age 25 or over). Each instance of students' verbal participation was also recorded. In this manner, I was able to identify students who accepted the consolidation of responsibility for participation in classroom discussion. Following Karp and Yoels (1976), those accepting the consolidation of responsibility by participating twice or more in a single class session were labeled "talkers." Those participating less than twice in a single class session were labeled "nontalkers." Observers also kept qualitative notes regarding interaction in the classroom. Because it was not possible to identify individual students at the

origin site in the interactive telecourses, only student participation at the receiving site was recorded.

Of the students enrolled at Indiana University Purdue University Columbus in the fall 1999 semester, 61% were female and 50% were nontraditional (age 25 or older). However, nontraditional students were more likely to be enrolled only part-time (less than 12 credit hours). Female students at Indiana University Purdue University Columbus accounted for 69.4% of all credit hour enrollment and nontraditional students accounted for 29.4% of all credit hour enrollment in the fall 1999 semester. Although the sample employed was nonrandom, student enrollment in the observed courses closely reflected campus enrollment patterns (nontraditional students = 36.7%; female students = 67.1%).

Two students from each course, a talker and a nontalker, were nonrandomly chosen for structured interviews. A total of 20 students were interviewed during the eighth and ninth weeks of the semester. The ten instructors were also interviewed. Of the 20 students interviewed, eleven were identified via observation as talkers. Thirteen students interviewed were female and ten were nontraditional. Interviewers inquired about students' perceptions of their own level of participation, other students' level of participation, their responsibilities in the classroom, and their views of the instructor's desire for student participation. We asked instructors about their definitions of student participation, their perceptions of students who participated frequently, and their strategies for balancing a desire for participation with a need to "cover the material." In the case of students and instructors in the telecourses we also asked them about their level of satisfaction with the distance education format.

Interaction in Traditional Delivery Courses

I begin with an overall analysis of the patterns of interaction in all ten courses and then follow with the preliminary comparison of interaction in traditional delivery and telecourses. In the 40 class sessions observed, researchers recorded 828 observations of the 247 students enrolled in the courses (see Table 1). Researchers also recorded 1688 instances of verbal interaction. Table 1 presents clear evidence of the importance of student age in classroom discussion; the impact of student gender and of instructor gender is less clear. Table 1 reveals that there was an average of 42.20 interactions made by the roughly 21 students in attendance per class session. Six of these students accepted the consolidation of responsibility by contributing two or more interactions per session. These six "talkers" averaged nearly seven interactions per class session each and accounted for 92.4% of all student participation—clear evidence for the

TABLE 1

ANOVA Comparison of Mean Interactions by Students Making Two or More (Twoplus) Interactions per Class Session by Student Gender, Student Age, and Instructor Gender

	Mean Interaction Per Session	Mean Attend	No. Students Making Two or More Interactions	Percent Students Making Twoplus Interactions	Mean Interactions by Twoplus Students	Percent all Interactions by Twoplus Students	<i>N</i>
All	42.20	20.7	5.83	28.1	6.69	92.4	828
Males (32.9%)	10.55	6.8	1.83	26.8	5.27	91.2	272
Females (67.1%)	31.65	13.9	4.00	28.8	7.34	92.7	556
Traditional (63.3%)	12.65	13.1	2.23	17.0**	4.87**	85.6	524
Nontraditional (36.7%)	29.55	7.6	3.60	47.4**	7.82**	95.3	304
Male instructor (48.8%)	41.70	20.2	5.05	25.0*	7.74	93.8	404
Female instructor (51.2%)	42.70	21.2	6.60	31.1*	5.89	91.0	424
<i>N</i>	1688	828	233			92.4	828

***Significant at 0.001. *Significant at 0.05.

norm of the consolidation of responsibility. Using an ANOVA comparison of means, I found statistically significant differences in the percentage of students who were talkers by student age and instructor gender, but not by student gender. The percentage of female talkers (28.8%) was almost identical to that of males (26.8%) and was not statistically significant. However 47.4% of nontraditional students were talkers, compared to only 17% of traditional students—a statistically significant difference ($p \leq 0.001$). Also, a higher percentage of students in female-taught classes, compared to those in male-taught courses, were talkers (31.1% to 25.0%, $p \leq 0.05$). These talkers also varied by the mean number of interactions per class session. Somewhat surprisingly, female talkers outpaced their male counterparts (7.34 to 5.27), although the difference was not significant. Nontraditional talkers also made significantly more interactions than did traditional talkers (7.82 to 4.87, $p \leq 0.001$). Though talkers in male-taught courses contributed more interactions than talkers in female-taught courses (7.74 to 5.89), the difference was not statistically significant. Overall, consistent with previous research, it was clear that student age had a larger impact on participation in discussion than did student gender. In female-taught courses, more students were willing to accept the role of “talker.” However, the mean number of interactions

per talker was higher in male-taught courses than in female-taught courses. Regarding the ongoing debate over the role of student gender, the evidence suggests that female students participate at least as much as, if not more than, male students in mixed-age college classrooms where females are in the majority (in this case 67% of all students).

All students, both talkers and nontalkers, recognized the role of talkers in the classroom. Talkers were quick to express their confidence in their ideas and their willingness to ask questions and interact in order to facilitate their own learning.

I'm here to learn. If I don't participate, if I don't ask questions, if I don't seek the knowledge I want, I'm not going to learn. And the only way I can learn is to actively participate and expend an effort. *Nontraditional Female Talker Computer Technology Major*

Nontalkers were also quick to recognize the positive contributions of talkers to the class as a whole by asking for clarification, by sharing examples and experiences, and by generally breaking up the routine pacing of the classroom.

It breaks up the class and gives people besides just the teacher a chance to talk and share their knowledge and experiences. *Traditional Male Nontalker Computer Technology Major*

Although talkers' input was often appreciated by their classmates, nontalkers were quick to criticize talkers whom they perceived were off-topic or trying to wrest control of the classroom from the instructor by asking too many questions. In these situations nontalkers were vociferous in their criticism depicting talkers as going well beyond what was required of, and necessary for, students.

You have the ones who waste time. And the ones who want so much explanation that they take up a year to get one answer. That is most irritating. Mostly that is the older students. . . . Even after class is over they still want to talk. . . . Some of the older students are kind of assholes. *Traditional Male Nontalker Business Major*

Talkers, therefore, had to obtain a delicate balance between seeking clarification, which the majority of their silent classmates would define as valuable, and seeking too much information or slipping off-topic, which could provoke a hostile reaction from nontalkers.

As noted in the quote above, nontalkers recognized that it was the nontraditional students who were likely to accept the consolidation of responsibility in the classroom. Likewise, in our interviews, instructors were quick to recognize the presence of talkers in the classroom and to note that it was the nontraditional students who were most likely to accept this role.

In a large class I get five or six people responding all the time. They become more of a focus and you find it hard to get away from calling on these small clusters of people who really want to participate. The rest of the class easily blends into the background. *Male Geology Instructor*

Many of them [nontraditional students] like to talk a lot. *Male Psychology Instructor*

In general, instructors held very favorable views of these students. They felt that talkers vocalized questions shared by many students, questions most students would not ask themselves. Talkers were also credited with making the class more engaging by freeing the instructor from constantly being in the role of the “talking head” who expounds wisdom in a lecture from behind a podium. Third, instructors expressed appreciation for the contributions talkers made to the class by sharing their insights and experiences as they were relevant to the course and topic.

The ones who are speaking out are, perhaps, a little more on the ball sometimes anyway. They're trying to straighten something out in their own thinking, knowing that probably 15 others are sitting there with the same question, but don't want to ask, or don't want attention brought to them. I think that helps. *Female English Instructor*

Even though instructors held very positive views overall of the students who accepted the consolidation of responsibility for participation in classroom discussion, their praise was often followed by a footnote regarding a negative experience with a talker. Instructors frequently found themselves having to deal with a talker who was viewed unfavorably by his or her classmates. Talkers were faulted for sometimes being too dominating and, thus, discouraging other students' participation, for being too argumentative, for offering irrelevant or inappropriate comments, and for using discussion as a means of seeking attention.

I have had students who were really wonderful in terms of sparkling conversation. They blend right into the whole conversation. I have had other students who have disrupted the class in terms of trying to dominate a conversation to the extent that I have been contacted outside of class [by other students] to say, “Please, can't you do something to shut this kid up!” *Male Political Science Instructor*

In sum, instructors recognized and appreciated the contributions of the talkers who accepted the consolidation of responsibility for participation in classroom discussion. However, they were aware that the discussion dynamic of the classroom was a fragile social construction. The positive dynamics of discussion could easily be destroyed by a talkative student who annoyed his or her classmates. Therefore, instructors adopted several strategies both to control talkers and to encourage

greater participation by the quiet students. In general, instructors sought to create a relaxed and engaging classroom environment by being enthusiastic themselves, by offering opportunities for students to get to know one another and become comfortable with one another in small group settings, by being nonjudgmental on issues of opinion, by learning students' names, and by offering immediate reinforcement when students made contributions to classroom discussion.

I give examples I have lived through. I try to make myself familiar with the student and where they work, so that I can ask them how [course topics] relate to them at their place of work. I always try to use their name and their workplace name, but I try not to put them on the spot. *Female Organizational Leadership and Supervision Instructor*

When people do participate, I'll give a nod. I'll smile. I'll interject something like, "Yeah, that's right," "That's interesting," or "I really appreciate your comment." *Male History Instructor*

Students and instructors, alike, recognized the consolidation of responsibility in operation. Most often, students were content with this arrangement, provided talkers were perceived to be on-topic and not too domineering or argumentative. Instructors appreciated the contributions of talkers, but worried about the lack of participation on the part of the many silent students in the classroom and sought ways to encourage greater participation. In the interactive telecourses, we found a very different interaction pattern prevailed.

Interaction in Interactive Telecourses

When comparing students in the two interactive telecourses with those in traditional delivery courses (see Table 2), I found a tremendous amount of interaction occurring in those two classrooms, but almost none of it with the origin site instructor and classmates. When I included receiving site only interactions in the telecourses (those made with the microphone connecting students to the origin site muted), telecourse students participated at a rate ten times that of traditional classroom students (15.23 to 1.53 interactions per student per session). When these "receiving site only" interactions are considered, a picture of frequent interaction in the telecourses emerges. Many of these were single word or very brief comments typically made while the origin site instructor was speaking on the monitor in front of the students. Although some of these receiving site only interactions were efforts by students to seek help from and assist one another, observers noted that much of the interaction was similar to disruptive students whispering in the back of the traditional classroom. Certainly, some of this can be attributed to the

TABLE 2

ANOVA Comparison of Mean Interactions per Student per Session in Traditional Courses and Distance Learning *Excluding* and *Including* Receiving Site Only Interactions

	Mean Interactions per Student <i>Including</i> Receiving Site Only Interactions	Mean Interactions per Student <i>Excluding</i> Receiving Site Only Interactions	Number of Students Observed
All students	2.04	1.47	828
Distance learning courses	15.23**	0.10*	31
Traditional college courses	1.53**	1.53*	797
Number of interactions observed	1688	1219	

***Significant at 0.001. **Significant 0.01.

very small size of these courses ($N = 4$ in each class), for students in smaller courses participate more than those in larger courses. In the subsequent interviews, telecourse students themselves recognized this pattern of asking one another questions, making humorous side comments, and talking about topics that were unrelated to the course.

This mute on/mute off, it's good in some ways because we say all kinds of things that they can't hear. [laughs] *Nontraditional Female Nontalker Accounting Major*

While a lot of off-topic interaction between receiving site students was occurring, almost no interaction was occurring with the sending site instructor and classmates. When I *excluded* interactions ($N = 469$) that were limited to the receiving site (no attempt was made to communicate with the origin site instructor or students via the available technology), students in the interactive telecourses were anything but interactive—averaging only one tenth of an interaction per session. By comparison, students in traditional delivery courses averaged over 1.5 interactions per student per session.

While probing during interviews with students in the telecourses for an explanation for their lack of interaction with the sending site, I discovered that although students had the technological capacity to interact with classmates and instructors at the origin campus, they found the technology to be an insurmountable social-psychological barrier to their participation.

The thing of it is, we sit here and we really don't participate. It's really uncomfortable to have to turn this [microphone] on and say, "Excuse me, I have

a question. I have a comment.” By the time you get their attention, he’s already on to the next point and you’ve got to bring them back. The four of us, usually, just don’t participate. *Nontraditional Female Talker Accounting Major*

As Comeaux (1995) found, communication between sites was hampered by cameras, microphones, and by students seeing themselves on the monitors.

There’s times when I have questions I want to ask, but I would rather search for the answer. . . . You feel like you’re in the spotlight or on the spot. It’s embarrassing. *Nontraditional Female Nontalker Business Major*

Because they were uncomfortable interacting via technology with the instructor and their Indianapolis campus classmates, students in the telecourses interacted with each other and the teaching assistant at the receiving campus. Students readily spoke to one another, with their microphone connection to the origin campus muted, interacting much as if they were viewing a video.

What we find ourselves doing is making comments to each other. “What did he say about this? What is this? What is that? I didn’t catch that part.” I don’t like that. *Nontraditional Female Talker Accounting Major*

Although this alternative strategy for learning was often helpful, sometimes even this “on-topic” interaction between some receiving site students could make hearing the instructor on the television screen problematic for receiving site classmates.

They’d [classmates at receiving site] ask [the teaching assistant] for clarification, and I’m trying to hear what the instructor [at the origin site] is saying. He’s going on with his or her thing. And I can’t hear what they’re saying because he’s [teaching assistant] explaining something to them that they didn’t get when he [origin site instructor] was talking about it before. *Nontraditional Female Nontalker Accounting Major*

Telecourse students were hesitant to lay the blame for their lack of interaction with the receiving site on their instructors. Instead, they focused on the technology itself as being the problem.

It’s not what he [the instructor] does. He or she is not aware that we have a question. . . . It’s so troublesome to have to turn this mute button on and off. By the time you get all that done, you just go on. *Nontraditional Female Talker Accounting Major*

The end result of the perceived technological barrier was that telecourse receiving site students felt as if they were not a part of the class and of what was happening at the origin site.

It [the technology] makes us feel different. We feel like we're a separate class [at the receiving site]. We're not in that [origin site] class. *Nontraditional Female Talker Business Major*

In response to this feeling of alienation from their origin site instructor and classmates, telecourse students not only relied on their on site classmates to a greater degree, but also resigned themselves to getting less academic help and having to work harder on their own.

You end up saying, "I'll figure it out. Maybe I can figure it out on my own." This semester I ended up spending a lot of time on stuff like that and still not doing as well as I have in the past in other classes. *Nontraditional Female Talker Accounting Major*

Clearly, the telecourse students approached the course more like occasional participants, or spectators, rather than as full participants with their counterparts and instructor at the origin campus. Despite the high levels of receiving site only interactions, Columbus students in the telecourses felt disadvantaged relative to their Indianapolis counterparts.

Telecourse instructors recognized the dilemmas faced by their receiving site students and took some steps to be helpful, but met with only limited success.

I think that the distance has a tendency to dampen the spontaneity that might occur in a regular class just because you're not physically in the same place. . . . My approach was to consciously make a point to, at least a couple of times each class, to look at the monitor and say, "O.K., Columbus, what do you think about this?" I wanted to make sure they knew that I knew they were there and that I wasn't forgetting about them. *Male Instructor*

Despite the instructor's efforts, students in the receiving site section of the course combined for an average of less than one verbal interaction per class session. Students would rely on exaggerated physical gestures to respond and avoid turning on the microphone if at all possible.

They'll ask us, "Are you okay?" We say, "Yeah, yeah. We're fine." [nods head in an exaggerated fashion] Even if we're not [fine]. *Nontraditional Female Talker Accounting Major*

In part, because of this reluctance to interact, telecourse instructors found it much more difficult to "connect" with their receiving site students than with students in the same physical space.

I seem to connect with the students when I walk into a classroom. During that first few minutes when I'm in there and the tape is not rolling yet, I make that connection with the students in my classroom. Then they start the tape and I've already got them with me in here. The other people [at the

receiving site] come in . . . and I have a hard time. I've got to work at remembering to look at the monitor. They raise their hands and I don't see them. It's hard to make yourself make eye contact with a picture on a screen. I also think technology has to be blamed, as well, because they have to turn the microphones on and off. So it's an added step. You can't just blurt out, "Yea, but. . . ." *Female Instructor*

The telecourse instructors also were aware of how easily the receiving site students came to feel alienated from the rest of the class. The instructors encouraged the receiving site students to use emails, faxes, and phone calls to interact with them outside of class. Instructors perceived that the lack of immediate physical access contributed to the sense of alienation on the part of the receiving site students.

The students in Columbus were probably at a bit of a disadvantage. If they needed more detailed explanation, they couldn't just hang around after class and hope to ask me a question. That meant they would have to make more of a conscious effort to set up a phone call, or send me an email, or something to say they needed a little extra help.

It was easier for me in the live class if it looked like somebody wasn't getting it. I could walk over as the class broke up and ask how they were doing. Looking at the people on the video feed [from the receiving site], I really couldn't see that [students were not getting it]. *Male Instructor*

Students at the receiving site also perceived themselves as being at a disadvantage relative to their sending site classmates. Instructors were less readily available due to technological limitations. Therefore, students chose to rely on their receiving site classmates and to muddle along as well as they could. They expressed frustration that they were putting in greater effort than in their traditional delivery courses, but seeing a lower return on their effort.

If I were in the classroom with the instructor, I would probably just say, "I don't understand." Or at least see him outside of class. Go to his office—which again we don't have the liberty to do. I would at least try to see a tutor [available at the sending site campus]. You end up saying, "I'll figure it out. Maybe I can figure it out on my own." This semester I ended up spending a lot of time on stuff like that and still not doing as well as I have in the past in other [traditional] classes. *Nontraditional Female Talker Accounting Major*

In sum, the technology formed a barrier that students were very hesitant to cross. As a result, receiving site students rarely interacted verbally with their instructor and sending site classmates. Instead, feeling alienated from them, they chose to rely on their classmates physically present in the room and resigned themselves to being disadvantaged and working harder with less return for their efforts.

Conclusion and Implications

In the college classroom, students and instructors negotiate definitions of the situation and classroom norms that apply to, among other issues, participation in discussion. From this very preliminary comparison, we found evidence that the norm of the consolidation of responsibility is in operation in the mixed-age college classroom in the traditional delivery classroom. However, in interactive telecourses receiving site students were very active in talking to their classmates at the receiving site but were almost completely silent when it came to interacting with the students and instructor at the origin site.

One needs to use caution when generalizing from this case study of a nearly open enrollment commuter campus of less than two thousand students, many of whom are nontraditional. The results may not be applicable to other types of campuses and institutions (e.g., large residential campuses or highly selective institutions). Additionally, the sample of distance education courses was small and nonrandom, allowing for only preliminary suggestions as to how patterns of interaction in telecourses compare with those in traditional delivery classrooms. The small number of courses observed and the small number of students enrolled in the telecourses allow for only an exploratory comparison of student participation in discussion in distance learning and traditional courses. However, this exploratory research points to the need for further research, and larger samples are clearly warranted as various distance learning delivery strategies are increasingly utilized.

We also found preliminary evidence to suggest that in interactive telecourses, students at the receiving site perceive the technology to be a significant barrier to participation with students and instructors at the site of origin. However, they may instead rely on their classmates at the receiving site for clarification and assistance. They are also likely to engage in much chatter that is unrelated to the course during the class period itself. The lack of interaction with the origin site in telecourses suggests that these distance education students will have difficulty taking advantage of the benefits of social relationships with teachers and other students that Brown and Duguid (2000) argue is vital in higher education. Further research on interaction in distance learning courses is clearly warranted, given the rapid expansion of distance delivery courses in higher education. Can instructors and students develop strategies to overcome the perceived barriers that technology presents for them? Can instructors help distance students overcome the sense of alienation they feel from students and instructors at the origin site? Or does a distance

medium, inevitably create a distant social relationship despite instructors' intentional efforts to overcome the limitations of the medium? The social distance can be narrowed with email and phone calls, but can the gap be closed? Will distance education students feel less connection with their classmates and their instructors, leading to a decreased sense of connection with the institution and greater risk of failing to complete the course and to obtain the desired degree?

As American higher education has thrown itself headlong into the race to offer courses and degrees at a distance using various technological media, we often find ourselves asking questions about the desirability of such change only after the fact. Ogburn's (1964) theory of cultural lag seems quite appropriate in this situation. Our material culture, in this case our technological capacity to offer distance education, has changed faster than our nonmaterial culture, in this case our ability to discern the desirability and appropriate use of distance education. We need to consider carefully in what situations and for what purposes distance education is warranted. We also need to recognize its potential limitations. Without such careful assessment, we may be making a huge financial commitment to a program that could undermine rather than enhance achievement of our own and our students' goals.

Notes

¹The courses selected for observation were from the following disciplines: Business (2), English Composition, Education, Geography, History, Organizational Leadership and Supervision, Political Science, Psychology, and Sociology.

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