

## 12.2 Accounting Faculty Members' Perceptions of Distance Learning: An Exploratory Study

### **Editorial**

We return to research-oriented articles this month with the following contribution by Drs Mosebach and Newmark. It is NOT a media comparison study, but one that looks specifically at the perceptions of faculty teaching in online accounting degree programs, and opens up a promising line of research.

Technology is catching up with the requirements of courses taught at a distance that are heavy in numbers and symbols. This used to be a major stumbling block, but course software now incorporates equation editors, and the cost of scanners suitable for turning in homework (that has been worked by hand) are under \$100, and fax machines are proliferating. And some of the faculty I have worked with recently are teaching managerial and financial accounting online, to classes that are consistently oversubscribed.

It has long been my contention that the success or failure of distance courses rests exactly where it does in the classroom, on the interface between teacher and learner. That transaction is structured and colored by the perceptions of both. We have heard a lot from the students - here we catch a glimpse from the instructor's view.

Mauri Collins  
DEOSNEWS Editor

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## **Accounting Faculty Members' Perceptions of Distance Learning: An Exploratory Study**

By

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### **ABSTRACT**

This study measures the perceptions of faculty members who teach accounting with recent distance learning (DL) experience towards DL. Subjects are from universities with nationally recognized DL programs. Seventy-six of the 230 surveys were returned, but only 22 of the respondents have recently taught a DL course, with 15 respondents using interactive

television as their primary delivery medium. These faculty members believe their DL courses are equally rigorous in terms of quantity and complexity of material. While subjects generally feel accounting poses no unusual problems for DL delivery, some faculty members feel journal entries and complex solutions are difficult to present via the Internet or interactive television. Other concerns are that students are intimidated by DL media, and interaction and information retention is lower for DL students. Another finding is that accounting departments at these DL-committed universities are slow to adopt DL. Finally, subjects overwhelmingly acknowledge that their opinion towards DL changed after actually teaching a DL course.

## INTRODUCTION

Distance learning (DL) is broadly defined as any form of instructor-student communication where the student and instructor are separated during the process of education delivery (Swift, Wilson, and Wayland 1997). Universities use many different media to reach students who cannot attend on-campus classes due to temporal and/or geographical restrictions. Many university distance learning programs can be classified into two general types, those that use interactive television (ITV) and those that use the Internet for course delivery. Interactive television combines two-way audio with either one-way or two-way video, while use of the Internet includes audio and video, synchronous chat, asynchronous discussion forums, LISTSERV, e-mail, static web pages, and interactive web sites. Usually, several content delivery media are used within the same course.

Many prestigious universities are involved in DL, including University of California-Berkeley, The Pennsylvania State University, University of Chicago, Columbia University, and University of Wisconsin. Several new for-profit organizations are entering the "business" of higher education such as UNext, Jones University, and University of Phoenix. Additionally, corporations are offering DL courses (some of them accredited) to their employees (Moore,

1997). These and other DL efforts have caused much controversy among faculty members. Ardent supporters of DL feel it is part of a much needed paradigm shift from teacher-centered, passive learning (e.g., lectures) to student-centered active learning (Beaudoin, 1990). The most vocal detractors, on the other hand, believe that DL will damage higher education by reducing it to mere training (Young, 2000). Among these detractors are the members of the American Federation of Teachers, who recently passed a resolution that opposes undergraduate degrees earned entirely online (Carnevale, 2000).

This disparity of opinions has expanded beyond academic circles, as illustrated by two recent *Business Week* articles. In the first article, Nobel Prize winner Gary Becker stated that in addition to supporting DL conceptually, he is investing in a for-profit organization involved in this educational delivery mode (Becker, 1999). *Business Week* followed up this positive view of DL with a response presenting an opposing view. In this article, Richard A. Hale, Professor Emeritus of the University of Maine, openly displayed his distaste for DL. He states, "Having a degree implies that you have an education . . . [which is] obtained by being physically part of the college community, interacting face to face with instructors and fellow students in and out of class..." (Hale, 2000).

One point of contention in the DL debate addressed in these articles is the quality and quantity of interaction both in class and outside of class. This combination of formal and informal interaction helps to create a "community of learning," which many believe significantly enhances the education process (Brown and Duguid, 2000). Hanno (1999) addressed the issue of creating a community of learning as a way to energize one's teaching, "...taking the time to speak on a personal level with a student may be more memorable...than your most dynamic lecture." Detractors of DL question the ability of DL courses to create a community of learning (Brown and Duguid, 2000). Many fear that what little student-instructor interaction takes place in face-to-face classes will be further reduced by using DL course delivery methods. For instance, Gardiner (1997) found that over half of

face-to-face students have little or no interaction with faculty members.

Another concern described by Noble (1999) is the lack of faculty member involvement in universities' decisions to implement DL programs. Noble notes that administrators' disregard for faculty members input contributed to the downfall of correspondence courses (the oldest form of DL; Watkins and Wright, 1992) at prestigious universities (e.g., University of California-Berkeley, University of Chicago, Columbia University, and University of Wisconsin) a century earlier.

This paper explores the perceptions of faculty members who teach accounting with DL teaching experience towards distance learning. Although other studies have surveyed DL faculty members about their attitudes towards DL (Taylor and White, 1991; Clark, 1993; NEA, 2000, SUWGA, 2000), these studies do not necessarily reflect the opinions and concerns of faculty members who teach accounting. Moreover, the only study in accounting concerning DL (Seay and Milkman, 1994) was a study to assess student performance and attitudes in an interactive television accounting course. Therefore, faculty members who teach accounting at seventeen schools identified as leaders in distance learning are surveyed. Since these respondents have DL teaching experience at institutions committed to DL, their perceptions are used to highlight issues that may warrant consideration by accounting departments considering DL initiatives.

## **RESEARCH METHOD**

### **Sample**

We surveyed faculty members who teach accounting at universities identified by Forbes

Magazine as the top 20 schools in DL (Ebeling and Bistayi, 1997). Four additional universities were included because they offer online courses or degrees and are AACSB accredited [\[1\]](#) (*Beta Gamma Sigma News*, 1998). Of the original 24 institutions, seven were not listed in the *Accounting Faculty Directory* 1998-1999 (Hasselback, 1998), indicating they either did not have an accounting department or they did not grant undergraduate accounting degrees. The seventeen universities remaining in the sample are listed in Table 1.

**Table 1****Universities Listed as Active in Distance Learning**

California State University - Dominguez Hills

Carnegie Mellon University

Colorado State University

Duke University

Indiana University

Michigan State University

New York Institute of Technology

Nova Southeastern University

Old Dominion University

University of Akron

University of Alaska Southeast at Sitka

University of Colorado at Colorado Springs

University of Maryland

University of Missouri - St. Louis

University of Tennessee

University of Wisconsin - Oshkosh

Washington State University

Source: Forbes Magazine, June 16, 1997 and Beta Gamma Sigma News, Fall 1998

Two hundred thirty (230) surveys were sent to faculty members listed in the *Accounting*

*Faculty Directory* 1998-1999 (Hasselback, 1998) as members of the institutions in Table 1. Of the 76 surveys returned (33 percent response rate), 44 respondents (19 percent of the sample; 58 percent of the respondents) indicated their accounting departments either did not offer DL courses or they did not teach DL courses. This left 22 usable surveys (9.5 percent of the sample) [\[2\]](#)

### ***Demographics of Respondents/Institutions***

Demographic information for the respondents and their institutions are presented in Table 2. Most faculty members are terminally qualified (86 percent) and the majority are CPAs (64 percent). The most common teaching areas are financial and managerial accounting, though all areas are represented. Additionally respondents are experienced teachers (mean teaching experience = 17.3 years), which is consistent with studies in other disciplines describing the characteristics of DL faculty members (NEA, 2000). The demographic information indicates subjects in this study are a diverse and seemingly representative, albeit small, sample of faculty members who teach accounting. Moreover, the demographics of respondents who had no recent DL experience possessed similar characteristics (86 percent doctorates, 72 percent CPAs, most common teaching areas were financial and managerial accounting, mean teaching experience of 17.9 years).

**Demographic Information (n=22)**

<b>Education Level (highest):</b>	<b><u>Masters</u></b>	<b><u>Ph.D./DBA</u></b>			<b>Total</b>		
	3 (14%)	19 (86%)			22 (100%)		
<b>CPA Certification:</b>	<b><u>CPA</u></b>	<b><u>Non-CPA</u></b>			<b>Total</b>		
	14 (64%)	8 (36%)			22 (100%)		
<b>Teaching Experience (Yrs):</b>	17.3 Mean			9.0 Std. Dev.			
	15.5 Median						
<b>DL Sections Taught past 2 yrs:</b>	<b><u>1</u></b>	<b><u>2</u></b>	<b><u>3</u></b>	<b><u>4</u></b>	<b><u>5</u></b>	<b>Total</b>	
2.1 Mean	6	10	4	1	1	22	
1.0 Std. Dev.	(27%)	(45%)	(18%)	(5%)	(5%)	(100%)	
<b>Teaching Expertise:</b>	<b><u>Fin</u></b>	<b><u>Mgrl</u></b>	<b><u>Audit</u></b>	<b><u>Tax</u></b>	<b><u>Cost</u></b>	<b><u>Systems</u></b>	<b>Other</b>
% of sample <sup>A</sup>	11 (50%)	13 (59%)	4 (18%)	4 (18%)	8 (36%)	5 (23%)	5 (23%)
<b>Primary DL</b>	<b><u>ITV</u></b>	<b><u>Internet</u></b>		<b>Other</b>	<b>Total</b>		
<b>Delivery Medium:</b>	15 (68%)	6 (27%)		1 (5%)	22 (100%)		
<b>Choice To Teach DL Classes:</b>	<b><u>Yes</u></b>		<b>No</b>	<b>Total</b>			
	16 (73%)		6 (27%)	22 (100%)			
<b>Compensation to Teach DI Classes:</b>	<b><u>Salary</u></b>	<b>Release Time</b>		<b>None</b>	<b>Total</b>		
	10 (45%)	11 (50%)		1 (5%)	22 (100%)		

<b>Entire Degree Program on DL?</b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b>Don't Know</b>	<b>Total</b>
	14 (64%)	6 (27%)	2 (9%)	22 (100%)
<b>If Yes, Which Degree(s)?</b>	<b><u>BSBAcct</u></b>		<b><u>MSAcct</u></b>	<b>MBA</b>
Some offer multiple DL degrees	7		5	11
multiple DL degrees <sup>B</sup>	(32%)		(23%)	(50%)
<b>Has DL Increased # of</b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b>Don't Know</b>	<b>Total</b>
<b>Acct Students? <a href="#">[3]</a></b>	6 (27%)	10 (46%)	6 (27%)	22 (100%)

<b>Size of Univ (000s):</b>	<b><u>5-10</u></b>	<b><u>10-15</u></b>	<b><u>15-20</u></b>	<b><u>20-30</u></b>	<b><u>&gt;30</u></b>	<b>N/A<sup>C</sup></b>	<b>Total</b>
<b># of Universities:</b>	1 (10%)	1 (10%)	4 (40%)	5 (30%)	1 (10%)		10 (100%)
<b># of Respondents:</b>	2 (9%)	2 (9%)	8 (37%)	6 (27%)	2 (9%)	2 (9%)	22 (100%)
<b># of Acct Faculty:</b>	<b><u>1-5</u></b>	<b><u>6-10</u></b>	<b><u>11-15</u></b>	<b><u>16-20</u></b>	<b><u>21-25</u></b>	<b>N/A<sup>C</sup></b>	<b>Total</b>
<b># of Universities:</b>	1 (10%)	3 (30%)	4 (40%)	1 (10%)	1 (10%)		10 (100%)
<b># of Respondents:</b>	2 (9%)	5 (22%)	11 (50%)	1 (5%)	1 (5%)	2 (9%)	22 (100%)

<sup>A</sup> Faculty were allowed to designate multiple areas of teaching expertise.

<sup>B</sup> Percentage based on total of yes and no responses (20 responses).

<sup>C</sup> Data was not available.

Subjects have taught an average of 2 DL course sections during the past two years, indicating that they have had recent experience with DL teaching. The primary course delivery method was interactive television (68 percent), which consists of two-way audio with either one-way or two-way video—one-way video allows students to see the instructor, but the instructor cannot see students at remote sites. Twenty-seven percent of the sample used the Internet for course delivery and 5 percent used print correspondence. [4] ITV is an older technology, and has involved a large capital investment, which helps explain its widespread use. Additionally, it is often used by universities because it more closely represents a

traditional classroom experience, which makes it easier for both instructors and students to adapt to the delivery medium (Delbecq and Scates, 1991, p. 344).

The universities in this sample are mostly large institutions—80 percent of the subjects are from universities with over 15,000 students. This is to be expected given the large amount of resources needed to support a large-scale distance learning program. For ITV, the technical resources include broadcast and receiving classrooms, broadcast infrastructure such as satellite up-links at broadcast sites and satellite down-links at receiving sites, and additional computer network infrastructure to facilitate communications outside the classroom (e.g., e-mail, web pages, bulletin boards, chat rooms). ITV also requires additional support personnel such as broadcast technicians, and technical and administrative personnel at remote sites. For online course delivery via the Internet, the computer network infrastructure must be able to support the heavy demands that online courses place on computer networks.

As technological advances improve the quality of video delivered over the internet, universities will likely shift from ITV to streamed Internet delivery because universities will not have to maintain costly receiving sites and students will be able to take courses from any location where they have access to a computer with an Internet connection. This will reduce the overall costs to the university and expand the pool of potential that can be served.

For any type of distance learning program, additional personnel are needed to support DL courses such as instructional designers, who help faculty members adapt their courses to DL. In addition, someone must co-ordinate and lead the DL functions. For example, *The Wall Street Journal* recently reported that Old Dominion University was offering \$150,000 - \$200,000 to hire a Vice President of Distance Learning (Dunham, 1999).

Additional administrative resources are also necessary to provide student support services: e.g., registration, advising, and career placement) to distance students. Also, sufficient electronic library and research resources must be provided as students at a distance often lack access to local physical resources of their universities.

Most subjects, 73 percent, reported that their institutions give faculty members the choice of whether they teach in distance learning. Three respondents (14 percent), however, commented that while they officially have a choice, refusing a DL teaching assignment is viewed very negatively by their college and university administration. Almost all subjects (95 percent) reported receiving some extra compensation for teaching DL courses. Additional compensation was either in the form of a one-time course release (50 percent) or extra monetary compensation (45 percent). [\[5\]](#)

Almost two-thirds of respondents (64 percent) indicated students can earn an accounting or MBA degree via DL. Twenty-three percent of the respondents indicated their universities offer degrees via DL for both undergraduate and graduate accounting and an online MBA. Another 27 percent of the sample indicated their universities only offered an MBA degree, and two subjects (9 percent) indicated that only a bachelors degree in accounting was offered through DL.

Respondents were also asked if DL had increased the number of accounting students in their programs. Only 27 percent believed that DL had increased accounting enrollments while 46 percent indicated no increase in enrollments and 27 percent did not know. [\[6\]](#) Of the six respondents who indicated DL had increased their accounting enrollments, three subjects reported an increase greater than 10 percent.

This study's small sample size reflects the number of institutions with accounting departments that participate in distance learning. Of the 17 institutions nationally recognized for their DL efforts, surveys were received from faculty members at 15 of those institutions. Respondents at four of those institutions indicated no DL courses are offered in accounting. When these responses are combined with the two institutions who only offer DL courses for their MBA program, respondents indicate that 35 percent of these institutions recognized for their DL programs do not offer any accounting courses (other than support for a DL MBA program) via DL.

### **Test Instrument**

The survey instrument contained 28 statements on a seven-point Likert-type scale (1 = strongly disagree; 7 = strongly agree) to gather information about faculty members perceptions of distance learning. The following areas were addressed: student quality (four questions), student outcomes (two questions), interaction (five questions), community of knowledge (two questions), course content (three questions), teaching methods (two questions), faculty members preparation (three questions), effects of teaching medium on course delivery (five questions), and overall attitude towards DL (two questions). Additionally, the survey contained a section to gather demographic information about the subjects and their institutions. The survey was sent with a cover letter describing the purpose of the survey and stressing that perceptions were important to the study. Subjects were encouraged to fill out the demographic data even if they did not have any DL teaching experience.

## RESULTS

Table 3 presents the results of the survey. Responses are trichotomized to highlight strong attitudes towards DL. Responses of 1 or 2 (strong disagreement) are grouped together. Responses of 3, 4, or 5 are considered neutral responses. The “don’t know” responses are included in the same column next to the neutral responses so they can be easily aggregated with the neutral responses. Responses of 6 or 7 (strong agreement) are grouped together. Additionally, the means, medians, and standard deviations of responses to each statement are reported (“don’t know” responses are not included in the computations). The items are grouped by the categories set forth above to facilitate discussion.

**Table 3****Faculty Perceptions of Distance Learning Students (n = 22)**

<u>Item</u>	<u>SURVEY STATEMENT</u>	Mean Med. S.D.	Strongly Disagree (1, 2)	Neutral (3, 4, 5)	Don't Know (DK)	Strongly Agree (6, 7)
	<b>STUDENT QUALITY</b>					
1	Students at Distance Learning Centers seem more dedicated than students on campus.	3.84 4.00 1.57	4 18%	12 54%	3 14%	3 14%
2	Students at Distance Learning Centers seem more prepared than students on campus.	3.74 4.00 1.45	4 18%	13 59%	3 14%	2 9%
3	Students appear more interested in the class in Distance Learning.	3.59 4.00 1.56	7 32%	13 59%	0 0%	2 9%
4	Students at Distance Learning Centers seem more mature than students on campus.	4.11 4.00 1.33	2 9%	15 68%	3 14%	2 9%
	<b>STUDENT OUTCOMES</b>					
5	Overall, students' grades are better in Distance Learning.	4.10 4.00 1.18	1 4%	18 83%	1 4%	2 9%
6	The results of professional exams such as the CPA or CMA are better for students in Distance Learning.	3.63 4.00 0.74	1 4%	7 33%	14 63%	0 0%
	<b>INTERACTION</b>					

7	Students ask more questions in Distance Learning.	3.23	8	12	0	2
		3.00	36%	55%	0%	9%
		1.41				
8	Students ask better types of questions in Distance Learning.	3.86	4	13	0	5
		4.00	18%	59%	0%	23%
		1.55				
9	Distance Learning appears to limit interaction between student and instructor.	4.32	5	8	0	9
		4.00	23%	36%	0%	41%
		2.06				
10	Distance Learning appears to limit interaction between instructor and student.	4.09	6	9	0	7
		3.50	27%	41%	0%	32%
		2.11				
11	Distance Learning appears to limit interaction between students.	4.71	2	12	1	7
		5.00	9%	55%	4%	32%
		1.71				

## **Student Quality**

The first four items in Table 3 provide indicators of student quality—dedication, preparation, interest, and maturity. These measures are separated from student outcomes because they are intangibles that cannot be directly measured by homework, projects, quizzes or exams. A majority of the respondents (68 – 82 percent) express neutral feelings regarding dedication (item 1; mean = 3.84), preparation (item 2, mean = 3.74), and maturity (item 4, mean = 4.11). However, nearly one-third of the DL faculty members strongly disagree that DL students are more interested in their classes (item 3, mean 3.59). Overall, it appears that the sample do not have strong feelings about DL student quality.

## **Student Outcomes**

Two statements (items 5 and 6) address student outcomes. The first item, “Overall, students’ grades are better in Distance Learning,” is designed to capture in-class performance. Since assessment of in-class performance may vary between professors, the second item, “The results of professional exams, such as the CPA or CMA are better for students in Distance Learning, ” is designed to provide a comparison on an independent measure—professional certification examinations. The overwhelming majority of respondents (87 percent) express neutral feelings towards DL students’ grades (item 5, mean = 4.10) and 96 percent are neutral (14 respondents [63 percent] chose “don’t know”) concerning DL students’ results on professional exams. Overall, respondents do not have strong feelings that DL students perform better or worse than other students.

## **Interaction**

Faculty members' perceptions of interaction are measured by five items (items 7 - 11). Over one-third of the DL faculty members who teach accounting respondents strongly disagree that DL students ask more questions (item 7, mean = 3.23), while only two respondents (9 percent) strongly agree with the statement. However, most of the respondents (59 percent) have neutral feelings about the quality of the questions asked by DL students (item 8, mean 3.86).

Responses to the quality of interaction statements are consistent with perceptions that DL students do not ask a lot of questions. Forty-one percent of the respondents feel that DL limits student-to-instructor interaction (item 9, mean = 4.32). Thirty-two percent of the sample also strongly agree that DL limits instructor-to-student interaction, but 27 percent strongly disagree (item 10, mean = 4.09). Additionally, 32 percent of the respondents strongly agree that DL limits student-to-student interaction (item 11, mean 4.71), and only 9 percent (2 respondents) strongly disagree. Overall, about one-third of the DL faculty members surveyed believe that DL inhibits interaction.

Table 3 (continued)

## Faculty Perceptions of Distance Learning Students (n = 22)

<u>Item</u>	<u>SURVEY STATEMENT</u>	Mean Med. S.D.	Strongly Disagree (1, 2)	Neutral (3, 4, 5)	Don't Know (DK)	Strongly Agree (6, 7)
	<b>COMMUNITY OF KNOWLEDGE</b>					
12	I believe there is a "community of knowledge" that Distance Learning students are not exposed to.	4.25 4.00 1.59	3 14%	12 54%	2 9%	5 23%
13	I feel that Distance Learning students suffer from lack of exposure to the community of knowledge.	4.16 4.00 1.83	4 18%	10 45%	3 14%	5 23%
	<b>COURSE CONTENT</b>					
14	I change course content for Distance Learning.	3.59 4.00 1.87	8 36%	12 55%	0 0%	2 9%
15	I am not able to teach as many subjects in Distance Learning.	2.76 2.00 1.87	13 59%	6 28%	1 4%	2 9%
16	The course I teach in Distance Learning has the same complexity as the same course taught in a classroom setting.	5.48 6.00 1.40	0 0%	10 46%	1 4%	11 50%
	<b>TEACHING METHODS</b>					
17	Group work is an effective tool in Distance Learning.	4.27 4.50 2.03	5 23%	9 41%	0 0%	8 36%

18	Case studies are an effective tool in Distance Learning.	4.29 4.50 1.68	2 9%	7 32%	8 36%	5 23%
<b>FACULTY PREPARATION</b>						
19	Prep time for Distance Learning is higher than other classes.	5.77 6.00 1.63	2 9%	4 18%	0 0%	16 73%
20	I change my teaching style for Distance Learning.	5.33 6.00 1.15	1 4%	9 42%	1 4%	11 50%
21	The changes in my teaching style improve my teaching ability.	3.80 4.00 1.58	5 23%	12 54%	2 9%	3 14%

## Community of Knowledge

Community of knowledge refers to informal communications between students or between students and their professors. This informal interaction can occur anywhere where students gather: on-campus, off-campus, or in cyberspace such as chat rooms, e-mail, or threaded discussion areas. The first statement, "I believe that there is a 'community of knowledge' that Distance Learning students are not exposed to," is an indicator of the level of a community of knowledge to which DL students are exposed. The majority of the sample is neutral regarding the level of the community of knowledge (63 percent) to which DL students are exposed, but 23 percent of the respondents strongly agree that DL students are not exposed to a community of knowledge (item 12, mean 4.25). The same pattern of responses is also present in the second community of knowledge statement, "I feel that Distance Learning students suffer from a lack of exposure to a community of knowledge;" 23 percent strongly agree and 59 percent are neutral (item 13, mean = 4.16). The correlation between the two items,  $r = .87$  ( $p = .001$ ) indicates that respondents who feel students are not exposed to the community of knowledge also suffer from their lack of exposure. [\[7\]](#)

## Course Content

One important issue concerning the quality of DL courses is related to the quality of their content. Three items (items 14, 15, 16) are presented to measure DL accounting faculty members' perceptions concerning the content of DL courses. Thirty-six percent of the respondents strongly disagree with item 14, "I change course content for Distance Learning," and 55 percent of the sample is neutral (mean = 3.59). The other two statements more clearly indicate respondents' feelings that the course content in DL versus non-DL courses is similar. Fifty-nine percent of the subjects strongly agree they are able to teach as many

subjects in DL courses (item 15, mean = 2.76), and 50 percent strongly agree that the level of complexity is comparable (item 16, mean = 5.48). Therefore, it appears that respondents believe DL courses are comparable in content to non-DL courses.

### **Teaching Methods**

Another area where teaching DL courses may differ from non-DL courses is the type of teaching methods used by professors. Two alternatives to lectures that are frequently used in accounting are group work and case studies. Fifty-nine percent of the subjects have strong feelings concerning group work (item 17, 36 percent strong agreement, 23 percent strong disagreement; mean = 4.27), but only one-third feel strongly about case studies (item 18, 23 percent strong agreement, 9 percent strong disagreement; mean = 4.29) These results indicate this sample of DL faculty members who teach accounting disagree over the effectiveness of group work for DL students, while most faculty members were either neutral or supportive of the use of case studies in DL classes. However, these answers may be affected by respondent's overall feelings about group work and case studies.

## Faculty Preparation

One reason accounting faculty members may be negatively predisposed to DL is the belief that teaching DL courses requires more preparation and necessitates a change in teaching style to be effective in the distance classroom (Moore and Kearsley, 1996). Faculty members may be able to justify courses to themselves the additional effort to teach DL if it improves their overall teaching ability. Three items (items 19, 20, 21) are included to measure perceptions on these preparation issues. Subjects generally agree with both item 19, "Prep time for Distance Learning is higher than other classes" (73 percent strong agreement, 9 percent strong disagreement; mean = 5.77), and item 20, "I change my teaching style for Distance Learning" (50 percent strong agreement, 4 percent strong disagreement; mean = 5.33). However, 23 percent strongly disagree that the changes in teaching style improved their teaching ability and 63 percent are neutral. Thus, the sample acknowledged the increased amount of work necessary to teach DL, but do not believe that the extra work makes them better teachers.

**Table 3 (concluded)****Faculty Perceptions of Distance Learning Students (n = 22)**

<u>Item</u>	<u>SURVEY STATEMENT</u>	Mean Med. S.D.	Strongly Disagree (1, 2)	Neutral (3, 4, 5)	Don't Know (DK)	Strongly Agree (6, 7)
	<b>EFFECT OF TEACHING MEDIUM ON COURSE DELIVERY</b>					
22	Students appear intimidated by the Distance Learning setting.	4.67 4.00 1.39	1 4%	14 65%	1 4%	6 27%
23	Students appear to retain information better in Distance Learning.	3.06 3.00 1.21	5 23%	13 59%	4 18%	0 0%
24	My student evaluations are better in Distance Learning.	3.60 4.00 1.35	5 23%	14 64%	2 9%	1 4%
25	The pace of the class is faster in Distance Learning.	3.81 4.00 1.44	4 18%	16 69%	1 4%	2 9%
26	Accounting poses unusual problems for Distance Learning.	3.65 3.50 1.84	7 32%	10 45%	2 9%	3 14%
	<b>OVERALL ATTITUDE TOWARDS DISTANCE LEARNING</b>					
27	<b>Before</b> teaching in Distance Learning I had a high opinion of Distance Learning.	4.00 4.00 1.69	4 18%	14 64%	0 0%	4 18%
28	<b>After</b> teaching in Distance Learning my opinion of Distance Learning changed.	5.32 6.00 1.36	1 4%	9 41%	0 0%	12 55%

### **Effect of Teaching Medium of Course Delivery**

Another reason faculty members may have a negative opinion of DL is they may feel the teaching medium (e.g., ITV, threaded discussion) is an impediment to learning. Items 22 - 26 address different aspects of the effects of the medium on course delivery. The first three items (22, 23, 24) address the effects of DL on students, while the last two items (25, 26) are more faculty oriented DL issues.

For the three student-oriented items, the majority of respondents (69 - 77 percent) are neutral towards the effects of DL teaching media on course delivery, but approximately one-fourth of respondents have strong negative feelings towards the effects of DL delivery methods on students. Twenty-seven percent strongly agree that students appear intimidated by the DL setting (item 22; mean 4.67), 23 percent strongly disagree that students retained information better in DL (item 23; mean = 3.06), and 23 percent strongly disagree that student evaluations are better in DL (item 24; mean 3.60). Additionally, only one or zero subjects responded strongly positive to any of these items. This pattern of responses—one-fourth of the sample negative and virtually no one positive—indicates that the DL faculty members who teach accounting surveyed are somewhat concerned with the effect of DL delivery methods on student learning.

Concerning the pace of DL courses, most subjects (73 percent) are neutral, while only 27 percent have strong feelings—18 percent strongly disagree that the pace was faster in DL classes and 9 percent strongly agree (item 25; mean = 3.81). Additionally, the DL faculty members who teach accounting surveyed do not feel that accounting poses unusual

problems for DL as 32 percent disagree with item 26 and 54 percent are neutral (mean = 3.65). Therefore, it appears that the DL faculty members who teach accounting surveyed feel the teaching medium has some negative impact on learning, but accounting courses do not present unusual problems when teaching them via DL.

### **Overall Attitude Towards Distance Learning**

The decision of whether or not to offer DL courses or an entire degree program is often made by administrators and faculty members who have no experience teaching or administering a DL program. If one's experience with DL substantially changes one's opinion towards teaching DL courses, then those who go forth with a DL program may find faculty members' support quickly erodes after it is put into place. The first statement measures DL faculty members attitude before teaching DL (item 27), "**Before** teaching in Distance Learning I had a high opinion of Distance Learning," whereas the second item measures the extent to which subjects' opinions changed towards DL (item 28, "**After** teaching in Distance Learning my opinion of Distance Learning changed.).

Before teaching DL courses, faculty members held varying opinions: 64 percent were neutral, and the other 36 percent were evenly split between having a high opinion and not having a high opinion (mean = 4.00). However, after teaching DL courses, a majority of respondents (55 percent) strongly agree that their opinion changed, and only one respondent (4 percent) strongly disagrees. Additionally, there is no correlation between responses to the two statements ( $r = .001$ ,  $p = 1.000$ ), indicating that subjects' opinions changed regardless of their initial opinion.

## DISCUSSION

### Student Quality and Outcomes

Faculty members often associate the student qualities surveyed here—dedication, preparation, interest, and maturity (items 1-4) —with more mature students, who are supposed to be the target market of distance education. However, responses to these questions are dominated by neutrality with 59 - 82 percent of the sample responding either neutral or “don’t know” to each question. This is consistent with a National Education Association study (NEA 2000) in which subjects were evenly split regarding the ages of their DL classes: mostly under 25, equally distributed between under 25 and over 25, and mostly over 25. Moreover, there is no correlation in this study between these characteristics and students’ grades in DL courses (item 5). Therefore, it seems that the respondents do not see a clear connection between student quality and students’ grades in DL courses.

### Interaction and Community of Knowledge

One major concern of faculty members who teach DL courses is student interactivity (Taylor and White, 1991; Clark, 1993). In a survey of faculty members at the State University of West Georgia, DL faculty members ranked lack of interaction as their number one concern (SUWGA, 2000). This concern was also shared by subjects in the NEA survey (NEA, 2000) as 47 percent of DL faculty members felt student interactivity was worse in DL courses and only 27 percent believed it was better. These results are consistent with our findings that the DL faculty members who teach accounting surveyed believe DL limits interaction. However, two-thirds of the respondents use ITV as their primary DL delivery medium, and prior studies have shown that instructors using ITV tend to rely heavily on lecture-oriented instruction (Miller et al., 1993). Also, there was a marginally significant positive correlation between these items and the lack of a community of knowledge—item 12 ( $r_{9,12} = .40, p = .080; r_{10,12}$

= .41,  $p = .075$ ). This suggests that subjects' perceptions of a community of knowledge are more closely linked to students' interaction with faculty members rather than to fellow students. Moreover, the mixed results to the community of knowledge questions (items 12 and 13) are consistent with results from other studies (Clark, 1993; Beattie and James, 1997). Therefore, it appears that facilitating interaction and creating a community of knowledge are concerns that should be addressed together.

### **Course Content and Teaching Methods**

The results of the survey indicate that the content in accounting DL courses is comparable to course content in face-to-face classes (items 14-16 in Table 3). This is consistent with the NEA study (2000) in which respondents indicate that DL courses are comparable to traditional courses in the areas of improving quantitative skills, helping students master the subject matter, and providing students with high quality course material. In fact, DL was actually rated higher than traditional courses for providing high quality course materials.

However, NEA respondents felt that traditional courses are better than DL in strengthening students' group problem-solving skills (NEA, 2000), which contrasts the mixed findings in this study (item 17; 23 percent strongly disagree, 41 percent neutral, and 36 percent strongly agree that group work is effective in DL classes). But, since the sample size in the current study is small, it is difficult to tell if all DL faculty members who teach accounting feel differently about group work than other DL faculty members in general.

### **Faculty Preparation**

Respondents in this study overwhelmingly agree, (73 percent) with item 19, that DL courses

require increased preparation. This is consistent with other DL studies of faculty members' perceptions (Clark, 1993; NEA, 2000; SUWGA, 2000). Moore and Kearsley's (1996) survey text on distance education stresses "the need for significant periods of time and numbers of personnel to be committed to planning [a distance learning course]" (p. 124). Although non-DL faculty members are also aware of the additional preparation time required by DL (NEA, 2000; SUWGA, 2000), the extra work may be linked to the amount of change in faculty members opinions of DL. This is indicated by the significant positive correlation between item 19 ("Prep time for Distance Learning is higher than other classes.") and the amount of change in subjects' opinion of DL (item 28) — $r = .59$ ,  $p = .004$ . Therefore, it appears that increased preparation time should be addressed by any accounting department contemplating a DL initiative.

### **Effect of Teaching Medium on Course Delivery**

Two negative results in this category are that subjects feel students are intimidated by the DL setting (item 22) and DL students have trouble retaining information (item 23). The strong correlation between these items ( $r = -.60$ ,  $p = .009$ ) indicates a perception that the delivery medium may inhibit student retention. These negative feelings towards the medium are not surprising because DL faculty members who use interactive television (68 percent of respondents) have more negative feelings towards DL than subjects who deliver their courses over the internet (NEA, 2000, SUWGA, 2000). However, this perception is uncorrelated with item 5, subjects opinions about students overall grades in DL courses ( $r_{5,22} = .02$ ,  $p = .930$ ;  $r_{5,23} = -.16$ ,  $p = .521$ ), indicating a lack of connection between the medium and overall grades.

Although subjects have negative feelings towards DL delivery media, only 14 percent of the

sample strongly agree that accounting poses unusual problems for DL (item 26). However, the written comments reveal issues that should be addressed when an accounting department considers a DL initiative. Problems directly related to accounting are difficulty in presenting journal entries, financial statements, and complex solutions. Respondents indicate this problem exists regardless of whether courses are television based or web based courses. It should be noted that these subjects present these items regularly in more traditional settings.

### **Overall Attitude Towards Distance Learning**

Item 28 elicited the second strongest agreement, (55 percent [12 respondents] strongly agree, and only 4 percent [1 respondent] strongly disagrees), “**After** teaching in Distance Learning my opinion of Distance Learning changed.” Although the direction of the change was not specified in this item, the amount of strong agreement is consistent with other studies of DL faculty members which report that faculty members who taught DL courses have more positive feelings towards DL than faculty members who have not taught DL courses (Taylor and White, 1991; Dillon and Walsh, 1992; Clark, 1993; NEA, 2000; SUWGA, 2000). Even though non-faculty members who teach accounting feel more positively towards DL after teaching DL courses, these same studies reflect the concerns expressed by the faculty members who teach accounting in the current study.

### **Accounting Departments Slow to Embrace Distance Learning**

Perhaps, the most interesting finding of this study is that over one third of accounting departments at institutions with national reputations for their distance learning programs do *not* offer any DL accounting courses, except to support a DL MBA program. This is not

surprising as the strongest agreement to any single item was the statement that preparation time is higher for DL than for other classes (item 19; 73 percent strong agreement vs. 9 percent strong disagreement); and one-half of the sample strongly agree and only one respondent strongly disagrees that they had to change their teaching style for DL (item 20). Moreover, this additional burden is not offset by rewards such as an improvement in one's teaching ability (item 21) or higher student evaluations. Additionally, the demographic information reveals that extra compensation usually consists of either a one-time course release, a stipend to develop the course, or extra compensation for teaching extra-large classes such as bonus per student above 40 or 60 students. However, the recent decline in accounting students may prompt administrators, if not faculty members, to look towards distance learning as a way to increase enrollments by reaching out to potential students who would like to return to school, but cannot due to lack of accessibility from either time or distance considerations.

### **LIMITATIONS AND CONCLUSION**

The primary limitation of this study is the small sample size. A larger sample would have made it possible to compare the perceptions of DL faculty members who teach accounting who use different media to teach their DL courses. The current sample is skewed towards interactive television, which is 68 percent of the sample. Also, as with any other survey, non-response bias is always a potential problem. However, the current sample seems to be representative of the population of faculty members who teach accounting, and the results in this study are consistent with other studies of DL faculty members.

The major concerns of the DL faculty members who teach accounting in this study are interaction, preparation time, and concern that the DL medium may interfere with the

learning process. On the other hand, respondents feel they were able to teach their courses with the same level of complexity and rigor as in their face-to-face courses. The majority of respondents do not feel that accounting presents any unusual problems in a DL class, but there is some concern about presenting solutions to complex problems. Moreover, the large percentage of neutral and “don’t know” responses to the statements—a majority of respondents reported neutral or “don’t know” to 75 percent of the statements—indicate a tentativeness towards distance education. This is also reflected in the number of accounting departments who do not participate in DL in spite of their institutions’ nationally recognized DL initiatives. To make DL initiatives successful, universities should address faculty members concerns and provide resources to compensate for increased preparation time and changes to teaching style necessary to provide high quality DL instruction.

### **FUTURE RESEARCH**

There are many studies on various aspects of distance learning, but very few studies in the accounting area. Rebele at al. (1998) provide a review of education technology studies in accounting education literature, and Bryant and Hunton (2000) identified several areas for accounting education researchers to explore concerning the use of technology in the delivery of instruction. Further study to determine the effect of DL on student learning is important, as accounting departments will likely look to DL as a way to reverse enrollment declines *only* if faculty members who teach accounting can be confident that the learning process will not be compromised.

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## ENDNOTES

1 These four universities were identified as being Beta Gamma Sigma qualified. That is, they are AACSB accredited and have a Beta Gamma Sigma chapter.

2 Although the percent of useable surveys is only 9.6 percent, 22 percent (51) of the surveys were returned filled out (a total of 76 surveys [33 percent] were returned). If the number of completed surveys returned is used as a measure of response rate, the response rate would be comparable to other surveys of faculty members who teach accounting: Bryan and Smith (1997), 30 percent; Morris et al. (1990), 22 percent; and Cargile and Bublitz (1986), 25 percent.

3 Seventy-three percent of the respondents (16 subjects) reported that their institutions offered some online courses.

4 Written responses revealed that the additional monetary compensation was either in the form of a one-time course-development stipend or a per student bonus for classes over a certain size (i.e., 40 or 60 students).

5 Of the six respondents whose universities only offered an MBA via DL, three did not know if DL affected enrollments, two indicated that accounting enrollments did not increase, and one respondent indicated that accounting enrollments increased due to DL.

6 Note that respondents perceive the community of knowledge to be different than student-student interaction as there is no significant correlation between item 11 (student-student interaction) and item 12 (lack of a community of knowledge) — $r = .23$ ,  $p = .330$ —or item 11 and item 13 (DL students suffering from lack of community of knowledge) — $r = .32$ ,  $p = .180$ .

7 Of the six respondents who answered yes, three indicated the increase was between 5-10 percent, one respondent selected 11-20 percent, and two responded >40 percent.

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