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Revisiting teaching presence: An analysis of teaching presence across discourse communities

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Abstract
Teaching presence has been shown to influence student satisfaction as well as perceptions of perceived learning. However, past research on teaching presence has not investigated how teaching presence differs across discourse communities. This study investigated student's perceptions of teaching presence across different discourse communities (i.e., different academic disciplines) in accelerated online courses.

1. Introduction

The rise of online education is changing education (Turoff, 2006; Wray, Lowenthal, Bates, & Stevens, 2008). Learning online challenges nearly every assumption people have about teaching and learning. Some fear online learning will eventually eliminate the need for a teacher while others point out the important role a teacher plays in any learning environment (Lowenthal & Parscal, 2008). We contend, as others (Dunlap, 2006) that regardless of the format, the quality of a teacher plays a central role in any formal learning environment. Early literature about online learning, coupled with misapplications of constructivist learning theories, led many online instructors to take a "guide on the side" approach to teaching online (Lowenthal & Parscal, 2008). However, there is a fine line between being a guide on the side and being absent (Anderson, 2004). Thus, this study explored students perceptions of teaching--specifically, teaching presence--across different discourse communities (i.e., academic disciplines) in accelerated asynchronous learning environments.

2. Background

2.1. Community of Inquiry Framework

Garrison, Anderson, and Archer (2000) have highlighted--through their Community of Inquiry (COI) framework--the important role a teacher plays in successful online learning environments. In fact, Garrison et al. (2000) have argued that meaningful learning takes place in a COI, made of teachers and students, through the interaction of three core elements: cognitive presence, social presence, and teaching presence.

Cognitive presence, the first element in the model, is "the extent to which the participants in…a community of inquiry are able to construct meaning through sustained communication" (Garrison et al., 2000, p. 89). Social presence, the second element in the model, is the "ability of participants in a Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to other participants as "real people" (p. 89). Finally, teaching presence, the third element of the model--and the focus of this study--is the ability of a teacher or teachers to support and enhance social and cognitive presence through instructional management, building understanding, and direct instruction. More specifically, teaching presence has been defined as,

> the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile outcomes. Teaching presence begins before the course commences as the teacher, acting as instructional designer, plans and prepares the course of studies, and it continues during the course, as the instructor facilitates the discourse and provides direct instruction when required. (p. 5)

While there have been a number of studies on social presence (e.g., Gunawardena, 1995; Gunawardena & Zittle, 1997; Richardson & Swan, 2003; Rourke, Anderson, Garrison, & Archer, 2001; Swan, 2002; Swan & Shih, 2005; Tu, 2001, 2002; Tu & McIsaac, 2002) and cognitive presence (Garrison, Anderson, Archer, 2001; Garrison & Cleveland-Innes, 2005; Kanuka & Garrison, 2004 ; McKlin, Harmon, Evans, & Jone, 2002; Shea & Bidjerano,

2009), there has been in comparison only a handful of studies on the specific construct of teaching presence (e.g., Anderson, Rourke, Garrison, & Archer, 2001; Rourke & Anderson, 2002; Shea, Li, Swan, & Pickett, 2005; Shea, Pickett, & Pelz, 2003; Shea, Swan, & Pickett, 2005; Swan, 2004).

2.2. Research on Teaching Presence

In the following paragraphs, we will briefly summarize a few key studies on teaching presence. Not surprisingly, Anderson, Rourke, Garrison and Archer (2001) were the first to study the very concept of teaching presence that they developed. They created indicators of teaching presence based on the three categories they had previously identified (i.e., instructional design, facilitation, and direct instruction) and piloted their use. Interestingly, the teaching presence indicators manifested very differently in the two courses--from two different disciplines--they studied. They concluded from this that there must be a number of variables that affect teaching presence, specifically, "teaching style, discipline related conceptions of the education process, size of the class, and the teachers' and students' familiarity and expertise with the medium" (p. 13).

Rourke and Anderson (2002) later studied teaching presence through the use of peer teams to lead online discussion. They discovered that four member student teams were able to accomplish each of the three categories of teaching presence: instructional design, discourse facilitation; and direct instruction. Further, and perhaps even more importantly, they found that students preferred discussions facilitated by their peers more than the instructor.

Even though Anderson and colleagues are accredited with developing the construct of teaching presence, Shea and colleagues in the SUNY Learning Network have conducted the most research on it. Whereas Anderson et al. (2001) and Rourke and Anderson (2002) focused on studying indicators of teaching presence in course discussions, Shea and colleagues and most research since has focused on studying students perceptions of teaching presence through survey research.

Shea, Frederickson, Pickett and Pelz (2003) completed a preliminary study and then Shea, Pickett, and Pelz (2003) conducted a follow up investigation of teaching presence in the SUNY learning. In the preliminary study, they found that students perceived all three categories of teaching presence in their courses. Additionally Shea, Frederickson, Picket, and Pelz (2003) found that students reported a relationship between instructional design and organization and satisfaction and learning; they found similar results in the follow-up investigation. Further, they also discovered that effective facilitation was related to higher satisfaction and learning. However, contrary to Rourke and Anderson's findings (2002), Shea and colleagues did not report as high of a correlation between their peer's facilitation and their overall satisfaction and learning. Lastly, the follow-up survey found that direct instruction and student satisfaction and learning were correlated.

Shea, Li, Swan and Pickett (2005) later investigated the relationship between students' sense of learning community and teaching presence. In this study, they found that three categories of teaching presence--as originally developed by Garrison et al. (2000)--may need revision. They found that a majority of the teaching presence construct can be accounted for with just using the instructional design and organization and directed facilitation--thus combining the direct instruction and facilitation categories. Despite this, they did find a relationship between teaching presence and learning community.

Arbaugh and Hwang (2006) continued to investigate teaching presence in online instruction, specifically seeking to assess the construct validity of teaching presence in online MBA courses. Their results, despite the previous research by Shea et al. (2005), validated the construct validity of all three categories of teaching presence--thus, further calling into question whether teaching presence should be conceptualized as two or three categories.

There is also an increasing amount of research (Akyol & Garrison, 2008; Arbaugh, 2007; Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardson, & Swan, 2008; Cleveland-Innes, Garrison, & Kinsel, 2007; Shea, 2006) focused on studying all three elements of the COI framework--specifically, teaching presence, social presence, and cognitive presence--that is not addressed below. However, as this research continues, its important to understand teaching presence both on its own, which is the focus of this study, as well as how it interacts with all three components of the COI.

2.3. Gaps in the Literature

Despite some of the important findings in previous research on teaching presence, a number of gaps in the literature remain. More specifically, previous research on teaching presence has not taken into account some important variables that we posit--and Anderson et al, 2000 touched on--can ultimately influence teaching presence.

Discipline and Discourse Differences. Researchers of online learning have not adequately investigated the differences among specific academic disciplines (Arbaugh, 2005; Smith, 2005; Smith, Heindel, Torres-Ayala, 2008; White & Liccardi, 2006). Like Arbaugh (2005), we are somewhat surprised by this trend. This could likely be due

to the fact that too many studies on online learning tend to focus on one single course. While Anderson et al. (2001), early on, pointed out that differences might exist across disciplines because of differences between "discipline related conceptions of the education process" (p. 13), we posit that the issue is much more pervasive. That is, we contend that differences exist because faculty and students belong to different communities of practice or what we call discourse communities. Communities are constructed and maintained in part upon the language its members use (Street, 1984).

Participation in a given community requires knowing the specific language and literacy skills of that community (Gee, 1990, 1998, 2000; White & Lowenthal, under review). Thus acceptance within a community requires one know's and employ's the language of that community; that is, full inclusion within the community requires that one know's and use's the ways of talking, reading, writing, etc. unique to that setting (Gee, 2000; Lave & Wenger, 1991). The university as a whole is a definitive example of an academic discourse community (Bizzell, 1982; Gravett & Petterson, 2007; Williams, 2005). However, even within different disciplines there exist specific discourse communities that establish appropriate forms of communication.

The literature on discourse communities suggests that online faculty in certain fields of study (e.g., education) communicate differently than online faculty in other fields of study (e.g., business); further, because of these differences, students expectations regarding appropriate forms of communication and ultimately presence are likely to vary across academic disciplines. While we often like to think of good teaching as good teaching, in practice, good teaching always happens in a specific context with specific forms of discourse. In fact, part of good teaching, especially at the graduate level, involves indoctrinating students into appropriate forms of discourse for the career of their choice. Therefore, researchers of teaching presence (as well as social presence) need to investigate whether it differs across discourse communities (i.e., academic disciplines).

Course Format. In addition to academic discipline, course format can play an important role in teaching presence. The design or format of an online course or program can influence how faculty and student's develop and perceive social presence in general and teaching presence in particular (Anderson et al., 2001). For instance, having an online faculty member meet his/her students face-to-face before a course begins can effect a student's perception of teaching presence. In addition, whether or not a student is part of a cohort can also influence how teaching presence is developed and perceived. Finally, the context and manner in which courses are designed and developed is rarely taken into consideration. While Garrison and Anderson (1999) describe the differences between big and little distance education and warn against the industrialization and massification of higher education, Lowenthal and White (2008) have argued elsewhere that there are some strengths and weaknesses of larger--perhaps not "Big"--distance education programs but that we must learn to understand the implications of industrialized or other call Enterprise Models (Lowenthal & White, 2008) of online learning. However, past research on teaching presence has not focused enough on how details like these that can influence the results.

Time. Related to course format is the issue of time. Early research on social presence suggested that things take longer in computer-mediated environments (Thurlow, Lengel, & Tomic, 2004). Researchers have questioned how time affects social presence (Lin & Laffey, 2004; Tu & Corry, 2004) as well as the COI as a whole (Akyol & Garrison, 2008). The issue of time also needs to be considered in research on teaching presence. Time, similar to the issue of format, can and should influence teaching presence. For instance, whether faculty and students spend 5 weeks, 8 weeks, or 16 weeks communicating online should influence how teaching presence is developed, maintained, and perceived. However, often these details are not adequately investigated in the research on teaching presence.

3. Research Questions & Focus of Study

This study was specifically designed to investigate a number of these gaps. More specifically, the overarching goal of this study was to explore and to describe student's perceptions of teaching presence in an accelerated adult program and to investigate any differences that might emerge across academic disciplines. Therefore, it was first and foremost an exploratory study (Miles & Huberman, 1994; Onwuegbuzie & Leech, 2005) and descriptive study (Knupfer & McLellan, 1996). Given this, the following research questions guided this study:

1. Which academic discipline perceives the highest degree and which academic discipline perceived the lowest degree of teaching presence? (Descriptive)
2. Which indicator of teaching presence was ranked the highest and which was ranked the lowest across disciplines? (Descriptive)
3. Is there a statistical relationship between student's perceptions of teaching presence and computer experience? (Associational)

4. What is the relationship between student's perceptions of teaching presence and experience taking online courses? (Associational)
5. What is the relationship between student's perceptions of teaching presence and age? (Associational)
6. Is there a statistical difference in student's perceptions of teaching presence across level (i.e., undergraduate and graduate)? (Difference)
7. Is there a statistical difference in student's perceptions of teaching presence and gender? (Difference)
8. Do student's perceptions of teaching presence differ across different discourse communities in completely online—non-cohort based—accelerated courses? (Difference)

4. Methods

This study was conducted at a private Catholic university. For the purpose of this paper, we will refer to this University as Catholic Western University (CWU). In the following sections, we will outline the methods used for this study.

CWU consists of three colleges; the students for this study came from the College for Professional Studies (CPS) which consists of adult learners--in fact, a student must be 21 years or older to enroll in (CPS). Adult students at CWU complete undergraduate or graduate accelerated degree programs--which consist of 5 week and 8 week courses. CPS has an estimated 12,000 students; 40% of the credits each semester are completed online. Participants of the study came from four different schools and disciplines—namely, education, business, humanities, and computer science—within CPS.

CPS divides a normal academic year into three semesters. Each semester then consists of three 5 week terms as well as two 8 week terms. However all completely online courses are only offered on 8 week terms. Students completing fully online courses in the second 8 week fall term (i.e., Fall 8 week 2, 2008) were invited to participate in this study. An email was sent out to 2091 students. The survey was completed 322 times. Therefore the sample size is 322 (i.e., n=322). We are unable to compute a specific response rate because some of the 2091 students took more than one online course during the given term and were asked to complete the survey once for each course they took.

A survey developed by Arbaugh and colleagues (2008)—to measure the three presences that make up the COI Framework—was used to collect data from students. Both Arbaugh et al. (2008) and Swan et al. (2008) have published information about the development and validation of the survey. After seeking permission from Arbaugh to use the survey, an electronic version of the survey was created. Some basic demographic questions as well as two additional open-ended questions were added to the survey (see Appendix D). The survey was then administered to all students taking an online course in CPS during fall 8 week 2 2008. We closed the survey and stopped accepting responses a month after we administered it.

Once the survey was closed, the data was downloaded and entered into SPSS. We coded any blanks as 99 and any unknowns as 98. New variables were created for each of the three components of teaching presence as well overall teaching presence by averaging the responses. While the survey collected data about all three elements of the COI framework, only the results about teaching presence were analyzed for this study. Descriptive statistics were run to answer the first two research questions. Correlations were run to answer the third, fourth, and fifth research question. T-Tests were used to answer the sixth and seventh question. Finally, an Analysis of Variance (ANOVA) was conducted to answer the last research question.

5. Results

5.1. Demographics

We believe it is important to understand one's sample as much as possible before interpreting any results. See Appendix A for a complete list of the demographic data. Of the sample, 59.3% were female and 40.7% were male. Only 22.4% of the sample was 21-30 years of age. As one might expect with an adult program, 77.6% of the population was 31 years or older. Students came from both undergraduate and graduate programs; in fact, 56.5% of students were enrolled in undergraduate programs and 43.5% in graduate programs. Perhaps most importantly regarding this study (see Table 1) is the breakdown of students by discipline; 154 (47.8%) of students were taking management / business courses, 56 (17.4%) of students were taking from computer / information science courses, 59 (18.3%) of students were taking humanities / social science courses, and finally 49 (15.2) of students were taking education / counseling courses.

Table 1
Breakdown of Participation by Academic Discipline

Subject Area	N	%
1 Management / Business	154	47.8
2 Computer / Info Science	56	17.4
3 Humanities / Social Science	59	18.3
4 Education / Counseling	49	15.2

We also wanted to get a better idea of each participants self-identified computer skills and experience taking online courses. On a scale from 1 being novice and 10 being expert, 78.6 % of the participants labeled themselves as an 8, 9, or a 10 --with 20.2% identified themselves as "experts". Further, this was the first or second online course of 22% of the participants. With 51.8% haven taking 5 or less courses online. So while many of the students were new to online, they self identified themselves as being very adept with technology.

3.2 Research Question 1

To investigate which academic discipline perceives the highest degree of teaching presence and which academic discipline perceives the lowest degree of teaching presence, the explore feature in SPSS was used to calculate the descriptive statistics. The data indicates that students taking Humanities and Social Science courses perceived the highest degree of teaching presence (*M*=3.90), followed by Management and Business (*M*=3.83), Computer and Information Science (*M*=3.76) and ending with Education and Counseling (*M*=3.69) (see Table 2).

Table 2
Total Mean Scores on Teaching Presence by Discipline

	N	Mean	Median
Humanities / Social Science	56	3.90	4.04
Management / Business	147	3.83	4.17
Computer / Information Science	53	3.76	3.78
Education / Counseling	48	3.69	3.99

3.3 Research Question 2

To investigate which indicators of teaching presence ranked the highest and which one's ranked the lowest across disciplines, the explore feature in SPSS was used to break down the results by academic discipline. Students taking Humanities / Social Science courses ranked question #4. *Instructor clearly communicated important due dates/times frames for learning activities* the highest (*M*=4.27) and #12. *Instructor provided feedback that helped me understand my strengths and weaknesses* the lowest (*M*= 3.54).

Similarly, students taking Computer / Information Science courses also ranked question #4. *Instructor clearly communicated important due dates/times frames for learning activities* the highest (*M*=4.31) and #12. *Instructor provided feedback that helped me understand my strengths and weaknesses* the lowest (*M*= 3.33).

Students taking Management / Business courses also ranked question #4. *Instructor clearly communicated important due dates/times frames for learning activities* the highest (*M*=4.29)—like those taking Humanities/Social Science courses and Computer/Information Science—but they ranked #10. *Instructor actions reinforced the development of a sense of community among course participants* the lowest (*M*= 3.52).

Finally, students taking Education / Counseling courses, unlike other students, ranked question #2. *Instructor clearly communicated important course goals* the highest (*M*=4.15) but question #5. Instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn the lowest (*M*=3.30).

Table 3
Highest and Lowest Rating of Teaching Presence Across Academic Disciplines

Humanities / Social Science	High	*M*=4.27	#4. Instructor clearly communicated important due dates/times frames for learning activities
	Low	*M*= 3.54	#12. Instructor provided feedback that helped me understand my strengths and weaknesses
Management / Business	High	*M*=4.29	#4. Instructor clearly communicated important due dates/times frames for learning activities
	Low	*M*= 3.52	#10. Instructor actions reinforced the development of a sense of community among course participants
Computer / Info. Science	High	*M*=4.31	#4. Instructor clearly communicated important due dates/times frames for learning activities
	Low	*M*= 3.33	#12. Instructor provided feedback that helped me understand my strengths and weaknesses
Education / Counseling	High	*M*=4.15	#2. Instructor clearly communicated important course goals
	Low	*M*=3.30	#5. Instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn

3.3 Research Question 3

To investigate whether there was a statistically significant association between student perceptions of teaching presence and computer experience, a correlation was computed. However, a statically significant correlation was not found.

3.4 Research Question 4

To investigate if there was a statistically significant association between student perceptions of teaching presence and experience taking online courses, a correlation was computed. However, a statically significant correlation was not found.

3.5 Research Question 5

To investigate if there was a statistically significant association between student perceptions of teaching presence and age, a correlation was computed. However, a statically significant correlation was not found.

3.6 Research Question 6

To investigate whether there was a difference in student perceptions of teaching presence across level (i.e., undergraduate and graduate), an independent samples *t* Test was calculated. No statistically significant difference was found between undergraduate (*M*=3.90) and graduate (*M*= 3.67), *p*=.068.

3.7 Research Question 7

To investigate whether there was a difference in student perceptions of teaching presence across gender, an independent samples *t* Test was calculated. No statistically significant difference was found between male (*M*=3.86) and female (*M*= 3.76), *p*=3.89.

3.7. Research Question 8

To investigate whether there was a difference in average score of student perceptions of teaching presence across different disciplines a one-way ANOVA was calculated. No statistically significant difference was found between the groups of Management /Business (*M*=3.83), Computer/Information Science (*M*=3.76), Humanities /

Social Science (*M*=3.90), and Education /Counseling (*M*=3.69), *F*(3, 300)=.376, *p*=.771.

4. Discussion

Researchers struggle with finding the significance of no significant results. The lack of statistical significance can quickly lead one to conclude that this study was a success. However, if for no other reason, the teaching presence scores both within and across the disciplines suggest more than anything else that students can and do perceive high levels of teaching presence in accelerated online adult programs that utilize enterprise models of course development. And when one considers the fact that at face value this study—which used a 1-5 scale and Swan et al. (2008) used a 0-4 scale—had comparable teaching presence mean scores to past studies like Swan et al., this study can only be seen as a success.

It is important to note that just because the results of this study were not statistically significant does not suggest that differences do not exist across discourse communities. The College for Professional Studies at CWU has an atypical population of students in that as an adult accelerated college within a Catholic University, it attracts older—one could argue more even mature—students than traditional colleges and universities. Not only does the average student work and pay for his or her own education but most students have experience working in the "real" world while managing multiple commitments that often include a family and children. The specific population used for this study—which shines through in a group which for the most part has taken less than 5 courses online but still considers itself highly adept with technology—unquestionably affected the results in ways that we do not know. Further, and perhaps even more importantly, the College for Professional Studies at CWU employs an "Enterprise Model" of course development, which is essentially a centralized-standardized approach to the design, development, and management of online programs (Lowenthal & White, 2008). This means among other things that all online courses in CPS at CWU are designed and developed in a systematic process that involves using faculty as subject matter experts coupled with instructional designers and a host of other instructional technology professionals to develop high quality and standardized courses. Faculty then, once completing a 3 week long online training and assessment, end up teaching courses that are designed and developed by others and courses that they often do not have the ability to author (i.e., change). While models like these can easily be criticized as "teaching proofing" initiatives, results of our study suggest that the one of the benefits of a successfully implemented enterprise model might just be well developed online courses that full and part time faculty both (after some training) can teach that will more often result in relatively high perceptions of teaching presence. Future research should look at specifically comparing the results from a study and sample like this to more traditional samples that employ more decentralized models of online education.

With this being said, some interesting and perhaps important things can be found in the results of this study. First, CPS relies on practicing professionals to teach many of their courses; at any given time, 70% of courses are taught by adjunct faculty (that they refer to as affiliate faculty). Given this, one might expect that practicing teachers (who have actually been trained to teach) might score the highest—or at least not the lowest—on student's perceptions of teaching presence. However, practitioners of online learning have pointed out for some time that teaching online is different from teaching in face-to-face environments (Lowenthal, 2008; Wray et al, 2008). But a better a explanation for the low teaching presences scores might be related to the learner's expectations—that is, teacher education students might arguably have the highest expectations of what good teaching looks like and as a result be the most critical.

Another interesting finding of this study is related to the question that students in each academic discipline rated the lowest. While both students taking Humanities / Social Science and Computer / Information Science courses rated the twelfth question (*Instructor provided feedback that helped me understand my strengths and weaknesses*) on the survey the lowest, students taking Management / Business courses rated the tenth question (*Instructor actions reinforced the development of a sense of community among course participants*) the lowest whereas students taking Education / Counseling courses rated the second question (*Instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn*) the lowest. Findings such as these might suggest, among other things, that there are differences (even if they were not statistically significantly in this study) in how faculty in difference disciplines conceptualize the education process (Anderson et al., 2001). For instance, education faculty, who are regularly reminded of the social process of learning and the importance of community, scored the highest in developing a sense of community (i.e., question #10) whereas students taking Management / Business as well as Computer / Information Science courses scored the lowest on this.

5. Conclusion and Future Research

At some abstract level, "good teaching is good teaching." However, in practice, good teaching is always situated in a specific context that gives it meaning and helps define it. The research on online teaching and learning

can be strengthened by explicitly documenting how teaching and learning online change (or do not change) depending on its context and one important component of any learning context is the academic discipline and its related ways of being and knowing. This study was one example of investigating the role that academic disciplines play in the online teaching and learning process. Even though the results were not significant, they serve as a foundation for future studies.

Future research should specifically look at differences that might exist among all three components of the COI framework across discipline areas. We, like Arbaugh and Hwang (2006), chose to use a survey to "allow for the use of a larger and wider sample" (p. 13). However, future research might be strengthened by employing mixed and multiple methods (Lowenthal & Leech, in press)—specifically, some type of observation (e.g., by analyzing course discussion). Because even though students across different discourse communities might "perceive" teaching presence in similar ways, their instructors teaching presence behaviors might differ drastically when compared across disciplines.

Appendix A - Demographics

		Frequency	Percent
Gender	Female	191	59.3
	Male	131	40.7
Age	1. 21-30	72	22.4
	2. 31-40	108	33.5
	3. 41-50	92	28.6
	4. 51-60	43	13.4
	5. 62-older	7	2.2
Level	Undergraduate	182	56.5
	Graduate	140	43.5
Discipline	1 Management / Business	154	47.8
	2 Computer / Info Science	56	17.4
	3 Humanities / Social Science	59	18.3
	4 Education / Counseling	49	15.2
Computer Skill	1 Novice	0	0
	2	0	0
	3	2	.6
	4	2	.6
	5	5	1.6
	6	6	1.9
	7	51	15.8
	8	101	31.4
	9	87	27
	10 Expert	65	20.2
Courses Taken Online	0 (this is the 1st)	38	11.8
	1	33	10.2
	2	19	5.9
	3	18	5.6
	4	22	6.8
	5	37	11.5
	6	17	5.3
	7	16	5.0
	8	14	4.3
	9	9	2.8
	10	32	9.9
	11	3	.9
	12	17	5.3
	13	1	.3
	14	4	1.2
	15	7	2.2
	17	2	.6
	19	4	1.2
	20	10	3.1
	23	1	.3
	25	2	.6
	26	1	.3
	32	2	.6
	40	2	.6

Appendix B - Descriptive Statistics

	Mean	Median	Standard Deviation
1. Instructor clearly communicated important course topics			
Management / Business	3.97	4.00	1.205
Computer / Information Science	3.96	4.00	1.058
Humanities / Social Science	4.14	4.00	.980
Education / Counseling	4.09	4.00	1.060
2. Instructor clearly communicated important course goals			
Management / Business	3.98	4.00	1.232
Computer / Information Science	3.86	4.00	1.040
Humanities / Social Science	4.25	4.50	.899
Education / Counseling	**4.15**	4.00	1.021
3. Provided clear instructions on how to participate in course learning activities			
Management / Business	4.00	4.00	1.157
Computer / Information Science	3.98	5.00	1.257
Humanities / Social Science	4.02	4.00	1.087
Education / Counseling	3.91	4.00	1.231
4. Instructor clearly communicated important due dates/times frames for learning activities			
Management / Business	**4.29**	5.00	1.034
Computer / Information Science	**4.31**	5.00	.969
Humanities / Social Science	**4.27**	5.00	1.053
Education / Counseling	4.00	5.00	1.285
5. Instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn			
Management / Business	3.56	4.00	1.331
Computer / Information Science	3.51	4.00	1.286
Humanities / Social Science	3.79	4.00	1.171
Education / Counseling	**3.30**	3.00	1.350
6. Instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking			
Management / Business	3.57	4.00	1.435
Computer / Information Science	3.59	4.00	1.252
Humanities / Social Science	3.84	4.00	1.172
Education / Counseling	3.45	4.00	1.472
7. Instructor helped to keep course participants engaged and participating in productive dialogue			
Management / Business	3.69	4.00	1.368
Computer / Information Science	3.61	4.00	1.429
Humanities / Social Science	3.77	4.00	1.175
Education / Counseling	3.57	4.00	1.571
8. Instructor helped keep the course participants on task in a way that helped me learn			
Management / Business	3.64	4.00	1.357
Computer / Information Science	3.61	4.00	1.297
Humanities / Social Science	3.66	4.00	1.210
Education / Counseling	3.47	4.00	1.442

9. Instructor encouraged course participants to explore new concepts in this course			
Management / Business	3.83	4.00	1.297
Computer / Information Science	3.78	4.00	1.270
Humanities / Social Science	4.05	4.00	1.119
Education / Counseling	3.70	4.00	1.350
10. Instructor actions reinforced the development of a sense of community among course participants			
Management / Business	**3.52**	4.00	1.338
Computer / Information Science	3.37	3.00	1.311
Humanities / Social Science	3.61	4.00	1.171
Education / Counseling	3.62	4.00	1.438
11. Instructor helped to focus discussion on relevant issues in a way that helped me learn			
Management / Business	3.69	4.00	1.291
Computer / Information Science	3.57	4.00	1.237
Humanities / Social Science	3.75	4.00	1.210
Education / Counseling	3.62	4.00	1.483
12. Instructor provided feedback that helped me understand my strengths and weaknesses			
Management / Business	3.63	4.00	1.441
Computer / Information Science	**3.33**	3.00	1.306
Humanities / Social Science	**3.54**	4.00	1.307
Education / Counseling	3.40	4.00	1.570
13. Instructor provided feedback in a timely fashion			
Management / Business	4.01	5.00	1.333
Computer / Information Science	4.00	4.00	1.149
Humanities / Social Science	3.95	4.00	1.119
Education / Counseling	3.47	4.00	1.558
Total Avg Teaching Presence			
Management / Business	3.82	4.15	1.116
Computer / Information Science	3.75	3.67	1.032
Humanities / Social Science	3.90	4.04	.917
Education / Counseling	3.68	3.89	1.177

Appendix C-Correlation Matrix and Descriptive Statistics of Factor Items

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
Instructional Design and Organization													
1. Instructor clearly communicated important course topics	1.00	.855	.736	.640	.740	.751	.690	.734	.712	.717	.741	.645	.561
2. Instructor clearly communicated important course goals	.855	1.00	.764	.606	.715	.727	.675	.716	.719	.744	.711	.658	.596
3. Provided clear instructions on how to participate in course learning activities	.736	.764	1.00	.676	.701	.707	.633	.667	.656	.670	.679	.631	.584
4. Instructor clearly communicated important due dates/time frames for learning activities.	.640	.606	.676	1.00	.581	.612	.607	.625	.582	.581	.613	.575	.604
Facilitation													
5. Was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.	.740	.715	.701	.581	1.00	.872	.784	.801	.772	.764	.807	.755	.628
6. Instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.	.751	.727	.707	.612	.872	1.00	.833	.839	.810	.808	.860	.781	.661
7. Instructor helped keep the course participants on task in a way that helped me to learn.	.690	.675	.633	.607	.784	.833	1.00	.867	.792	.804	.820	.739	.630
8. Instructor helped keep the course participants on task in a way that helped me to learn.	.734	.716	.667	.625	.801	.839	.867	1.00	.818	.820	.838	.767	.638
9. Instructor encouraged course participants to explore new concepts in this course.	.712	.719	.656	.582	.772	.810	.792	.818	1.00	.773	.822	.732	.669
10. Instructor actions reinforced the development of a sense of community among course participants.	.717	.744	.670	.581	.764	.808	.804	.820	.773	1.00	.831	.700	.569
Direct Instruction													
11. Instructor helped to focus discussion on relevant issues in a way that helped me to learn.	.741	.711	.679	.613	.807	.860	.820	.838	.822	.831	1.00	.726	.595
12. Instructor provided feedback that helped me to understand my strengths and weaknesses.	.645	.658	.631	.575	.755	.781	.739	.767	.732	.700	.726	1.00	.725
13. Instructor provided feedback in a timely manner.	.561	.596	.584	.604	.628	.661	.630	.638	.669	.569	.595	.725	1.00

Appendix D - COI Survey

1. The instructor clearly communicated important course topics.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

2. The instructor clearly communicated important course goals.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

3. The instructor provided clear instructions on how to participate in course learning activities.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

4. The instructor clearly communicated important due dates/time frames for learning activities.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

5. The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

6. The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

7. The instructor helped to keep course participants engaged and participating in productive dialogue.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

8. The instructor helped keep the course participants on task in a way that helped me to learn.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

9. The instructor encouraged course participants to explore new concepts in this course.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

10. Instructor actions reinforced the development of a sense of community among course participants.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

11. The instructor helped to focus discussion on relevant issues in a way that helped me to learn.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

12. The instructor provided feedback that helped me understand my strengths and weaknesses.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

13. The instructor provided feedback in a timely fashion.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

14. Getting to know other course participants gave me a sense of belonging in the course.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

15. I was able to form distinct impressions of some course participants.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

16. Online or web-based communication is an excellent medium for social interaction.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

17. I felt comfortable conversing through the online medium.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

18. I felt comfortable participating in the course discussions.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

19. I felt comfortable interacting with other course participants.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

20. I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

21. I felt that my point of view was acknowledged by other course participants.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

22. Online discussions help me to develop a sense of collaboration.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

23. Problems posed increased my interest in course issues.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

24. Course activities piqued my curiosity.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

25. I felt motivated to explore content related questions.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

26. I utilized a variety of information sources to explore problems posed in this course.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

27. Brainstorming and finding relevant information helped me resolve content related questions.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

28. Online discussions were valuable in helping me appreciate different perspectives.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

29. Combining new information helped me answer questions raised in course activities.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

30. Learning activities helped me construct explanations/solutions.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

31. Reflection on course content and discussions helped me understand fundamental concepts in this class.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

32. I can describe ways to test and apply the knowledge created in this course.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

33. I have developed solutions to course problems that can be applied in practice.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

34. I can apply the knowledge created in this course to my work or other non-class related activities.

	1	2	3	4	5	
strongly disagree	○	○	○	○	○	strongly agree

Is the online course you just completed (and using as the basis to complete this survey) an undergraduate (400 level or below) or graduate (500 level of above) course?

Which of the following subject areas does the online course you just finished best belong to:
Management / Business
Computer / Information Sciences
Humanities / Social Sciences
Education / Counseling Other

If you chose other on the previous question, please identify the subject area of the course you just completed

How many online courses have you taken before this course?

Are you male or female?

How old are you?
21-30
31-40
41-50
51-61
62 or older

On a scale of 1-10 (with 1 being a novice and 10 being an expert), please rate how comfortable you are with technology

Briefly explain why you took this course online:

If you have taken other online courses before this one, was this course you just completed similar to other online courses you have taken? If not, please briefly explain how it was different.

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