
Preservice Teachers' Views of Instructor Presence in Online Courses

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Abstract

The researchers conducted this study to investigate undergraduate preservice teacher candidates' perceptions regarding variables related to instructor presence in online courses. Participants included 52 undergraduate education students enrolled in 100% online technology integration courses at a doctoral research university in the southeastern United States. The researchers used a mixed-methods design and analyzed quantitative data, collected via an online survey, using descriptive statistics and content analysis. The results of each analysis confirmed the other. The main findings were that timely responses, clear instructions, instructor availability, and course design are important concerns of the participants in this study. (Keywords: preservice teacher education, instructor presence, online instruction)

Preservice teachers experience mentoring relationships with many professionals (Campbell & Brummett, 2007). Future teachers often experience “a long-term approach to mentoring [that] begins early in the years of preservice teacher learning and seeks to help preservice students shift from the role of student to the role of teacher” (p. 52). The primary role of the mentor in the beginning stages of becoming a teacher is to model for the teacher candidates (Campbell & Brummett, 2007, p. 52). Online teaching and learning is now commonplace in both higher education and K–12 contexts, and the number of online learners is growing at an amazing pace (Allen & Seaman, 2010; Staker, 2011). Therefore, changes can be expected in how relationships are mediated between preservice teachers and at least

some of their preservice mentors. The relationships between preservice teachers and their mentors will begin to have at least partial online components. Indeed, professional organizations and researchers have called for preservice teachers to experience online education through the mentoring and modeling that instructors provide in their teacher preparation programs (International Association for K–12 Online Learning, n.d.; Lock & Redmond, 2006; National Education Association, n.d.).

As preservice teachers rely on various mentoring relationships, it is important to know their perceived needs as some of these relationships move to online environments. The present study was inspired by research conducted by Sheridan and Kelly (2010), who investigated how education students perceived indicators of instructor presence in online courses. We conducted the study with two purposes in mind: First, we wanted to collect information to inform the ongoing design of a group of undergraduate-level technology integration courses for preservice teachers. Second, we wanted to expand the professional literature on the topic of online instructor presence in the context of undergraduate-level, preservice teachers.

Review of Literature

Instructors and students must establish effective communication partnerships while engaged in online learning. A myriad of variables affects the process of building collaborative relationships, disseminating information, and maximizing student success. The presented information, however, will focus on the components, as indicated by current literature, that most significantly influence online learning via computer-mediated communication (CMC). We examined both students and instructors'

perceptions of instructor presence (e.g., social, cognitive) and the effectiveness of online learning to determine their impact on the online learning experience. We also integrated the precipitating factors of student satisfaction to illuminate their effect on the CMC process.

Lowenthal (2009) characterizes social presence as an intricate theoretical entity that illustrates the effect a communication environment can have on the manner in which individuals interact. Research findings, as expressed in the pre-existing literature, indicate that the social presence of instructors profoundly influences students' and instructors' account of the online learning experience. The research suggests, however, that individuals' perceptions of social presence and acclimation to the process of social interaction have a more profound influence than do the mere constituents of the communication medium. The subjectivity of individuals' perceptions must, therefore, be considered when constructing an online course to yield optimal results. According to Tu (2002), social presence has a cogent influence on the mode in which students socially interact while engaging in the online learning experience through CMC operations. Lowenthal and Dunlap (2011) conducted a study to examine students' perceptions of instructional strategies utilized to establish social presence in online learning environments. They found that simple strategies, such as one-on-one e-mails and detailed feedback, are more successful methods for creating social presence than more cutting-edge technology strategies (e.g., Twitter) that some instructors have used. Richardson and Swan (2003) further investigated social presence in online courses and determined that the construct of social presence affected student

outcomes, student satisfaction, and possibly instructor satisfaction.

Although social presence reportedly has a marked effect on CMC in online courses, the literature specifies that cognitive presence also plays a significant role in online learning. Garrison, Anderson, and Archer (2000) divided the concept of cognitive presence into three categories, each of which is related to the online learning experience: The initial category represents dissonance that is experienced, which causes trepidation. The next category encompasses the process of obtaining knowledge to clarify an unresolved issue. The final category consists of the manner in which ideas are collected, synthesized, and incorporated into the learning process. Garrison and Cleveland-Innes (2005) conducted a study to assess how the facilitation of cognitive presence affects student and instructor interaction in online courses. Results indicated that mere online interaction that excludes guidance is insufficient for productive online instruction and that both instruction and learning should be qualitatively examined. Further, the associative properties of asynchronous communication should be examined so that reflection and collaboration are aspects that are included when considering online learning. Dennen (2007) classified asynchronous communication as the process in which an individual relies predominantly on written form as a means to interact. Qualitative feedback and analysis are, therefore, integral in determining an effective online learning delivery.

Research dedicated to examining students' and teachers' perceptions of the effectiveness of online learning courses has provided invaluable information and insight regarding the growing field of online education. Preservice teachers enrolled in online courses are uniquely positioned so that their learning processes influence their future instruction strategies. Thus, it is important to understand what works well to provide them with mentoring and modeling of best practices in online instruction (iNACOL, n.d.; Lock & Redmond, 2006; NEA, n.d.). Ajayi (2009) researched preservice teachers' perceptions of asynchronous discussion

boards (ADB) to determine the effectiveness of this type of communication in online instruction. The results indicated that preservice teachers primarily perceive ADBs as an effective tool for communicating via CMC systems. Additionally, the results showed that ADBs allow instructors the opportunity to develop their own distinctive online learning forum. Ajayi's study illuminates the preservice teachers' perceptions of online learning, which provides information from both a student and instructor perspective.

Research conducted by Seok, Kinsell, DaCosta, and Tung (2010) provided qualitative analyses of instructor and student perceptions of the effectiveness of online courses by utilizing an online course evaluation inventory. Results indicated that both instructors and students contend that online courses are highly effective, that there is a positive correlation between the perceptions of instructors and students, and the level of teaching experience involved. The field of instructional technology reaps great benefit from an empirical analysis such as the aforementioned study, which illuminates the theoretical perspective that when instructor presence and experience are prevalent, instructors and students perceive online courses as effective. Similarly, Russo and Campbell (2004) conducted a study in which they specifically sought to assess how students in an online college course perceive mediated presence. The researchers discovered that the students rated their mediated instructors at a substantially higher level than their online peers. The results also indicated that behaviors (e.g., frequency of interaction, responsiveness, tone) synonymous with online communication influenced students' perception of the level of instructor-student presence in the online course. Although these studies on instructor and student perceptions of the effectiveness of online courses contribute to the efficacy of delivery, instruction, and learning experience, there are additional concepts to consider. Student satisfaction

with online learning is connected with instructor presence.

Student satisfaction is the last factor in connection with instructor presence to be addressed in this discussion. Student satisfaction appears to be associated with both students' perceptions of instructor presence and students' perceptions of the effectiveness of online courses. The literature shows that students perceive online learning as a positive experience when several key counterparts are at work. First, students seemingly have higher levels of satisfaction in online courses when instructors facilitate social and cognitive presence (Garrison & Cleveland-Innes, 2005; Lowenthal, 2009; Lowenthal & Dunlap, 2011; Richard & Swan, 2003). Second, as deduced by Dobbs, Waid, and Carmen (2009) in an empirical study, students who have previous online experience report their online experience as positive and beneficial to their academic growth. Last, instructors' dissemination of information and instructional delivery is shown to have a valid impact on student satisfaction in online courses (Dennen, 2007; Russo & Campbell, 2004).

The literature on instructor presence in online courses provides a wealth of knowledge for students, instructors, preservice teachers, and anyone who intends to broaden the scope of online learning. Although the literature presented here pertains to higher education, online delivery of instruction is offered at every educational level. As online course offerings continue to expand into more content areas, research must be conducted to determine best practices for teaching and learning.

In the present study, we investigate how instructor presence is perceived in online, undergraduate-level courses for preservice teachers. The findings of the present study will address the need identified by Sheridan and Kelly (2010) to explore students' perspectives of instructor presence in online courses. We designed this study to investigate the question: In online technology integration courses, what indicators of instructor presence do preservice teachers perceive as important?

Method

Participants

The participants for this study were undergraduate students at a comprehensive university in the southeastern United States who were enrolled in an education course on the topic of technology integration during the spring semester of 2011. We invited a total of 193 students from eight online courses to participate in the study, and 52 students chose to participate. We provided no incentives to the students to participate in the survey. The collective group of participants consisted of 44 females and eight males whose ages ranged from 19 to 49, with an average of 21.90 years old. The academic majors of the participants included early childhood education (ECED), middle grades education (MGED), special education (SPED), consumer science education (CSE), and health and physical education (HPE). The participants were actively enrolled in the following online courses during the time of the study: 30 (57.69%) in Instructional Technology for Early Childhood Education, 13 (25.00%) in Instructional Technology for Middle Grades Education, 6 (11.54%) in Instructional Technology for PK–12 Teaching Fields, and 3 (5.77%) in Instructional Technology for Special Education. Students were not enrolled in more than one of these courses during the spring 2011 semester.

The Research Context

The courses, which served as the context for this study, were undergraduate-level technology integration courses offered in a 100% online format. The courses were not offered in any format other than 100% online. The students enrolled in these courses were informed upon registration that their classes would be available in the university's learning management system (LMS) on the first day of the semester. The courses are required in various tracks of study in the university's college of education and are frequently the first online courses that the students experience.

The first author initially designed the courses that served as the context for this study. However, over time,

the courses have been modified and adapted based on feedback from students and course instructors. The first author was not teaching any of the courses the semester that we conducted the present study. The courses use the book *Technology Integration for Meaningful Classroom Use: A Standards-Based Approach* by Cennamo, Ross, and Ertmer (2010) as a common resource for the students. The book and the courses follow the National Educational Technology Standards for Students (NETS-S) (ISTE, 2007). Readers interested in the content of the courses are encouraged to consult the NETS-S and the Cennamo, Ross, and Ertmer text. Various online resources from the Internet are incorporated into the courses as well. The course design includes weekly readings, discussions, and projects. The courses are designed so that students may work asynchronously. Some group projects are included in the courses, and students are encouraged to collaborate for them using Internet-based technologies as much as possible. Interactions between students and the instructors take place mostly through the university's LMS, which includes a built-in e-mail system, synchronous chat tools, discussion forums, and access to Wimba Classroom, an online collaboration environment. However, some instructors offer to use online tools outside of the LMS, such as Web-based video conferencing (e.g., Skype), to communicate with their students.

The instructors of the courses were eight part-time adjunct faculty members. Three of the instructors had earned doctorates in education, one had earned an education specialist degree, and the remaining instructors had earned masters degrees in education. Each instructor had experience teaching his/her course prior to the semester that we collected the data for this study. The majority of the instructors had recent firsthand experience using technology in K–12 settings, and all instructors had some experience using technology in the teaching and learning process.

Instrumentation

Participants completed a 22-question online survey consisting of demographics questions and questions adapted for the local context from Sheridan and Kelly (2010). The survey included multiple-choice and open-ended questions. Sheridan and Kelly describe their survey as including “a mixture of open and close-ended items targeting students' experience with online learning and their preferences for various types of learning contexts” (Methods section, para. 2) with the purpose of presenting “a comprehensive list of typical actions that an instructor would take in setting up, delivering, and monitoring online courses” (Methods section, para. 2).

The multiple-choice questions asked respondents to rank various instructor behaviors using a 5-point scale. For example, students were asked to respond with: “Not important at all,” “Not very important,” “Neutral/Undecided,” “Somewhat important,” or “Very important” to instructor behaviors, such as: “Engages in ‘real time’ chat sessions,” “Provides timely feedback on assignments and projects,” and “Reads all of the discussion posts.” In the current study, the Cronbach alpha coefficient for the multiple-choice items was 0.967 as calculated using IBM SPSS Statistics version 19 for the Macintosh.

The survey included four open-ended questions, to which participants could respond with free-form text. One of these questions was used to collect data about possible instructor behaviors in the courses: “Below, write the five most important instructor behaviors for your success in an online class. (You may use behaviors from the items below, or add others.)”

By embedding some qualitative data into the otherwise quantitative survey, we were following what Creswell and Plano Clark (2007) classify as a “validating quantitative data model” (p. 65) variation on the triangulation design of mixed-methods research. We selected this variation of mixed methods for this study to supplement the data collected with the multiple-choice questions and to strengthen the study's findings. We observed these reasons to be appropriate and common

Table 1. Ten Most Important Behaviors and Ten Least Important Behaviors Based on Mean Ratings

Item	Min	Max	Mdn	M	SD
Items with Highest Mean Ratings					
Makes course requirements clear	4	5	5	4.92	0.27
Creates a course that is easy to navigate	4	5	5	4.87	0.34
Provides clear instructions on how to participate in course learning activities	4	5	5	4.87	0.34
Clearly communicated important due dates/timeframes for learning activities	4	5	5	4.83	0.38
Clearly communicates important course topics	4	5	5	4.81	0.40
Clearly communicated important course goals	3	5	5	4.79	0.46
Sets clear expectations for discussion participation	3	5	5	4.77	0.55
Always follows through with promises made	4	5	5	4.77	0.43
Provides timely feedback on assignments and projects	3	5	5	4.73	0.49
Lets me know how I am doing in the course	4	5	5	4.73	0.45
Items with Lowest Mean Ratings					
Feedback and comments are always positive	1	5	4	3.98	0.94
Uses icebreakers to get to know students	1	5	4	3.96	1.14
Gives me a sense of belonging in the course	2	5	4	3.94	1.00
Uses icebreakers to help students become familiar with one another	1	5	4	3.85	1.11
Provides video that allows me to see and hear the instructor	1	5	4	3.69	1.32
Provides weekly lectures	1	5	4	3.60	1.19
Reply to each individual student's posts in the discussion area	1	5	4	3.58	1.16
Engages in "real time" chat sessions	1	5	4	3.50	1.18
Has a personal website for me to go to	1	5	3.5	3.48	1.20
Participate in daily discussions	1	5	4	3.38	1.25

reasons for using mixed-methods in education research (Bryant, 2011).

Procedures

We obtained permission to conduct the research from the university's Institutional Review Board. We asked instructors of the undergraduate-level technology integration courses to forward an e-mail message from us to their students. Neither of us was teaching any course used in the study. The e-mail note explained the purpose of the research as collecting information to inform the design of the course and how teachers will interact in the course. We collected data anonymously using an online survey tool and provided no incentives for participation. The survey was available for 9 days during weeks 11 and 12 of a 15-week semester. The course instructors sent an e-mail reminder to their students about participating in the study on the 8th day. At the end of the data collection phase of the study, 52 students chose to participate by completing the survey. The response rate for the survey was 26.94%.

Data Analysis & Findings

We used descriptive statistics to summarize the multiple-choice response questions. Table 1 displays the 10 most important and 10 least important instructor behaviors, determined by examination of the mean scores.

We used content analysis (Merriam, 2009) to analyze the data collected with the open-ended questions. We used Merriam's process of "the simultaneous coding of raw data and the construction of categories that capture relevant characteristics of the documents content" (p. 205). We conducted analysis of the data in three iterations. Each researcher worked independently during the first iteration, open coding. Each researcher read the responses and formed categories of responses. The result of open coding was 143 unique codes. The second iteration of analysis consisted of the researchers comparing their codes and agreeing on a common set of codes through explanations of codes. For the third iteration of analysis, researchers examined

the data and the codes developed during the second iteration to determine recurring regularities, which established relevant themes of participant responses. Table 2 displays the codes and themes resulting from the second and third iterations of analysis.

We developed four main themes during the analysis: timely response, clear instructions, availability, and course design. The concept of timely response emerged through the participants' comments regarding responses to e-mail, discussion postings, and feedback on graded work. Response times varied in the participants' comments from 24 hours for an e-mail response to one week for feedback on graded assignments. It was clear that these participants had perceptions as to what they expected for reasonable response times. The theme clear instructions emerged as a result of consistent comments such as: "provide clear instructions," "good communication," and "very clear and concise with instructions and expectations."

Table 2. Evolution of Codes and Themes from Interview Transcripts

Timely Response	Third Iteration: Themes		
	Clear Instructions	Availability	Course Design
	Second Iteration: Pattern Codes		
Respond (timely, in email)	Available	Clear assignment instructions	Chooses good textbooks
Responds (timely)	Organized	Provide rubrics	Usable online materials
Responds (timely, grading)	Punctuality	Keeps updated course calendar	Online lectures have good audio
Responds (feedback)	Understanding	Provides ample time to complete assignments	
Responds (within 24 hours)	Communication	Expectations are clear	No group projects
Responds (within 48 hours)	Computer skills	Timing (reasonable deadlines)	Timing (module availability)
Discussion participation (daily)	Communication (consistent)	Instructions (detailed)	Fair (grading)
Discussion participation (weekly)	Open mind	Feedback	Flexible (with assignments)
Replies to individual discussion posts	Helpful	Easy to understand	Consistent updates
Responds (to email)	Fair	Clear feedback	Has office hours
Discussion participation	Participation	Deadlines	Sends reminders (assignments)
Responds (to each student in discussion)	Approachable	Follows up on assignments	Flexibility
Responds (assignment feedback)	Cooperative	Timing (reasonable time for quizzes)	Makes discussions interesting
Participates (in discussions)	Interpersonal skills (personable)	Provide examples	Engaging material
Participates (in assignments)	Good communicator	Grades assignments with feedback	Alignment (text, assignments, quizzes)
Responds	Interpersonal skills (respectful)	Back-up plans	Assignments on Internet research
Lots of grades	Encouraging	Grades updated regularly	Explains content
Allow at least one freebie	Caring	Reasonable number of assignments	Creates learning modules
	Attentive	More office hours	Provides online resources
	Interpersonal skills (good communicator)	Relevant material	Makes creative assignments
	Interpersonal skills (understanding)		Read what you assign

Note: Concept for table from Anfara, Brown, Mangione (2002)

The theme availability was observed through comments, from those as simple as “be available” to comments such as “Has office hours” or “participate weekly in discussions.” The final theme, course design, resulted from consistent expressions of desires for choosing good textbooks, providing online lectures with “good audio,” allowing adequate time for assignments to be completed, and providing a reasonable number of assignments.

Discussion

We conducted the current study with two purposes in mind: to collect information to guide the continuing development and facilitation of a collection of online courses at the university where they are offered, and to expand the professional literature on the topic of online instructor presence in the context of undergraduate-level, preservice teachers. We achieved both of these purposes by investigating the research question: In online technology integration courses, what indicators

of instructor presence do preservice teachers perceive as important?

The study has presented many important elements to consider as these courses are offered and evolve at our institution. The most desired behaviors we observed in the quantitative analysis of the multiple-choice questions are confirmed by the responses in the open-ended questions. An examination of Table 1 and Table 2 quickly demonstrates how the data is confirmatory. The students in these courses are concerned that they receive clear instructions and that they receive timely feedback from an instructor who is available to them. Also, the course must be designed in a way that is usable and realistic in terms of the time required to complete assignments.

The present study is a replication of a study by Sheridan and Kelly (2010). Sheridan and Kelly’s study focused almost exclusively on graduate students as participants, whereas this study focuses on the perceptions of undergraduate

preservice teachers. The results of the present study extend Sheridan and Kelly’s findings to undergraduate, preservice teachers. Sheridan and Kelly summarize their findings as: “the indicators most important to students dealt with making course requirements clear and being responsive to students’ needs” (Discussion section, para. 1).

Interestingly, Song, Singleton, Hill, and Koh (2004), in a study conducted to understand online student perceptions, had some similar findings. In their qualitative study of mostly graduate-level education students, they found that the design of the course and the ability to understand course goals were important elements of their online learning experiences. They also found that participants in their study were concerned about a lack of community. Other issues reported in the Song et. al. study were not observed in the present study. For example, Song et al. observed technical problems and comfort level with

technologies as major themes in their research. Those issues were not present in the current study or in the similar study by Sheridan and Kelly.

The lack of technical problems cited by study participants in the more recent studies may be due to the time elapsed since the earlier Song et al. study. Computers and the Internet have grown more ubiquitous in the time between these studies. Likewise, college students have been forced to become more comfortable with computer technologies. It appears as though a good design for a course and clear instructions and expectations have remained stable as essential elements of an online course.

Limitations

This study is not without limitations. The response rate for the survey was approximately 27%, which is lower than we desired. The low response rate introduces the potential for self-selection into the study, which may restrict the generalizability of the results. Fan & Yan (2010) reported that the response rate for Web-based surveys averages 11% lower than other survey modes. In the context of this study, the researchers perceived a Web-based survey as the best option, but future researchers should consider their contexts carefully. Perkins (2011) provides guidance for increasing response rates of Web-based surveys. Researchers continuing work in this area should take steps to increase the generalizability of their findings. Also, analytics available from an online LMS, if the LMS used supports the collection of this type of data, may be useful in examining certain variables related to online presence. Participants did not identify the courses in which they were enrolled. We decided to not collect this information because, in some instances, this data could have been used to identify practices of specific instructors. If we had collected this data, we could have used it to investigate potential selection and participant biases.

Another limitation relates to the survey used. We borrowed the survey from researchers who had used it in previous studies, but validity and reliability

have not been established with a large number of participants. The analysis of the multiple-choice and open-ended questions confirms the findings, but the similarity to the findings of the earlier study by Sheridan and Kelly (2010) may indicate that the survey somehow leads the participants to certain responses. Researchers may wish to use different survey instruments or research methodologies to confirm the findings. Despite the limitations, the present study does provide some useful information for those teaching online courses.

Implications for Practice

The findings of the present study include important information for anyone involved with the design of online education courses. It is clear from the present study, and other studies discussed, that participants in online education courses require timely responses, clear instructions, and instructors who design good courses and who are available to them. Some of these findings are somewhat subjective or sensitive to particular contexts and may require additional research to be understood. However, concepts such as timely responses and clear assignment instructions can be acted on without additional research. Instructors could include a communication plan in their syllabi that explicitly describes the types and frequency of various communications that students can expect. For example, an instructor could indicate that a response to an e-mail messages can be expected within 24 hours and that graded work will be returned with feedback within one week of submission. The timeframes described are purely for the sake of example. The point is that if students understand when to expect a response, they may be more satisfied with their online learning experiences. Also, establishing a well-advertised schedule of your availability to students may make them more comfortable. Additional research is required to develop meaningful understandings of what the students find acceptable for a “timely response” or a “good” design for an online course.

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