Online teacher education programs: social connectedness and the learning experience

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ABSTRACT

The purpose of this study was to test for statistically significant differences between students in an online and traditional (face-to-face) teacher education programs with their perceptions of social connectedness and satisfaction with their learning experiences at a research-intensive institution located in the southern region of the United States. Data were collected from participants using an online questionnaire that measured students' perceptions in both program formats. The results of the study indicated that students in both program formats had similar perceptions of their social connectedness and satisfaction with their learning experiences.

Keywords: traditional teacher education programs, online teacher education programs, learning experiences, social connectedness

INTRODUCTION

Social connectedness plays a critical role in teacher education programs because it becomes one of the most powerful components of effective teaching (Hammond, 2005). A second critical component for teacher education programs is to provide meaningful learning experiences for their students. Students enter these programs with certain expectations of what is to be learned. Part of our study includes the differences in the expectations of those in the online program compared to those taking the traditional route. Expectations are simply a set of ideas regarding future situations and conditions (Kuh, 1999). Pike (2006) contends that expectations are dynamic and can change as students are constantly gathering more information from their academic experiences. This is important because expectations also impact how teacher candidates respond to their environments. These expectations also act as precursors as the future teachers make academic decisions regarding their treatment of students (Pike, 2006). Kuh, Gonyea, and Williams (2005) assert that students' expectations can also influence how students respond to their academic surroundings, impacting their decisions. Therefore, it is imperative that teacher education programs provide students with learning experiences that meet their expectations. When expectations are met, students feel confident that they are learning skills and competencies that will benefit them (Sanders and Rivers, 1997).

The perception of a lack of social connectedness in online programs is germane to the issue and discussion as it relates to a community of learners. Glisan and Trainin (2006) found that while students feel it is easier to connect socially and make friends with students in face-to-face classes, students still believe that it is important to become socially connected in virtual learning environments. Laffey, G. Lin, & Y. Lin, (2006), assert that education and other learning occasions, including online programs and virtual classrooms, are understood to be social practices.

In opposition to the "online" debate, Hill et al. (2002) state that some learners feel like they are isolated when taking online courses, which leads to poor learning experiences, as well as minimal involvement and interaction with other students. However, a dynamic reality referred to as "Ambient Awareness" (Thompson, 2008) is slowly being accepted. Clive Thompson uses the term "awareness tools" to describe technologies that quickly and easily give or get updates through tidbits of information about ourselves with a number of other people. He argues that "ambient awareness" allows us to know others on a deeper, closer level than traditional relationships. This idea adds to the research done by Rovai (2002) who conducted a study which analyzed and evaluated the importance of the sense of community in a graduate online course. One of the conclusions he made from his study was that students with a stronger sense of connectedness with other students reported higher levels of perceptions of learning course content.

In a qualitative study published in May 2008, Bosch et al. studied students, faculty, and staff perceptions of what they believed constitutes high-quality learning experiences. The study, which was conducted at State University in New York, studied 15 focus groups of 10-25 participants each, with a total of 115 undergraduate students and 90 faculty and staff members. The results of the study revealed that all three categories of participants (students, faculty, and staff) similarly defined what they believed to be quality learning experiences, and that it is imperative that faculty, staff,

and students collectively share the responsibility of creating learning communities. Secondly, the results indicated that it takes all participants (faculty, staff, and students) to create meaningful learning experiences. The focus groups defined that meaningful learning consists of creating experiences which will help students to think critically, applying their knowledge to real-world situations. Kuh, Kinzie, Schuh et al. (2005) concur with these results, explaining that valuable learning experiences allow students to participate in experiences in which they will have opportunities to "synthesize, integrate, and apply their knowledge" (p. 12).

When considering what constitutes quality learning experiences, it is important to measure what students are learning. First and foremost, Bosch et al. (2008) assert that faculty must infuse their courses with "a variety of teaching and assessment strategies to promote meaningful learning" (p. 90). Seidman (2005) asserts that outcomes must be measured "to ensure that the student is learning what the student is supposed to learn" (p. 313). While it is important for faculty to set high academic expectations and measure what students are learning, it is equally as important for students to set high expectations for themselves. The focus groups from the State University study believe that responsibility resides with students, who must "keep an open mind to learning and experiencing new ideas and concepts" (Bosch et al., 2008, p. 90). Bosch et al. conclude that "If either (faculty or student) fails to assume their responsibilities, meaningful learning will suffer" (p. 93).

RESEARCH QUESTIONS

1. Is there a statistically significant difference in the social connectedness of students in an online program compared to those in the traditional face-to-face program?

2. Is there a statistically significant difference in satisfaction of the learning experiences of students in an online program compared to those in the traditional face-to-face program?

In an effort to answer the research questions, the data collected from this study were used to test for statistically significant differences between students in the online and traditional programs with their perceptions of social connectedness and satisfaction with their learning experiences.

METHODOLOGY

Participants

One hundred and fifty-three students who were enrolled in classes in an undergraduate teacher preparation program at a university in the Southeastern United States were invited to participate in this study. The potential participants were selected based on convenience and were enrolled in curriculum and instruction courses during the summer 2009 semester. Researchers obtained permission from the institutions review board to conduct this project.

Instrument

An online questionnaire was created by the researchers and was placed online using a survey software tool by the university's Office of Institutional Effectiveness. The questionnaire was designed to be administered to students enrolled in two program types (online and face-to-face). The questionnaire was based on the research literature in the areas of social connectedness and learning experiences as it relates to student success and retention.

Before administering this survey to the participants in this study, the questionnaire was field-tested on twenty students taking a foundation of education course. Also, the instrument was reviewed by a small group of faculty members. Based on the feedback received from the field-test results and the faculty members, minor changes were made to the instrument. Overall, the results of the field test and feedback from the faculty indicated that survey instrument was acceptably valid.

Procedures

After obtaining permission from the university's institutional review board and the appropriate faculty members, the researchers emailed the link to the online questionnaire to faculty teaching both types of students (online and face-to-face) in early June of 2009. Informed consent statements were also included in that email. The faculty, in turn, emailed the questionnaire link with the informed consent statement to their students. The questionnaire took approximately ten minutes to complete. At the end of June 2009, the survey window was closed and the data from the online questionnaires were downloaded into SPSS software for storage and analysis.

Sixty-nine of the 153 undergraduate students between the ages of 19 and 57 (with a mean age of 29.4) responded to the online invitation to participate in this study. Thirty-three of the respondents were in the online program and the other 36 students were in the traditional, face-to-face program. The questionnaire requested the following demographic information: classification, program type, gender, and major. See Table 1, located in the Appendix, for detailed demographic information.

Additionally, the survey instrument measured the level of student satisfaction with their social connectedness with other students in the program, as well as their satisfaction with their learning experiences in the programs. The questionnaire also asked students how many hours per week they spend using various socially connecting technologies. The items measuring students' perceptions of their social connectedness with other students and satisfaction with their learning experiences were on a 5-point Likert scale (Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree), where higher responses indicated higher levels of agreement. There were five items measuring the social connectedness construct and seven items measuring the satisfaction with learning experiences construct. The researchers conducted a reliability analysis of these two constructs, which were .814 for social connectedness and .829 for satisfaction with learning experiences. Since both of these reliabilities were greater than .700, the instrument was considered to produce reliable scores.

RESULTS

Descriptives

Descriptive statistics for items measuring Social Connectedness are reported in Table 2, which is located in the Appendix. Means for items measuring this construct ranged from the low to mid 4's, and one item had a mean of 3.21. The question related to the students studying with others for tests and exams had the lowest mean score.

Items measuring students' satisfaction with Learning Experiences all had means in the low to mid 4's, and one item had a mean of 3.85. This indicates that students who participated in this study, in general, have positive perceptions of their learning experiences. Table 3, located in the Appendix, provides descriptive statistics for items measuring this construct.

Analysis

Data collected from this study were used to test for statistically significant differences between students in the online and traditional programs with their perceptions of social connectedness and satisfaction with their learning experiences. To test for statistically significant differences, *t*-tests were computed. The following assumptions were tested and met,
1) observations were independent, 2) groups were almost the same size, and 3) the variances of the two groups were equal. There were no statistically significant differences between students in the traditional and online programs for either Social Connectedness $t(67) = -1.657$, $p = .102$ or Learning Experiences, $t(67) = -.889$, $p = .377$. Although not statistically significant, students in the online program reported higher means for Social Connectedness ($M = 4.22$ vs. $M = 3.95$) and Learning Experiences ($M = 4.46$ vs. $M = 4.34$).

CONCLUSION

It is important that higher education administrators and faculty understand how distance education, particularly online professional programs, is affecting student's perception of social connectedness. Berger and Lyon (2005) assert that there are concerns regarding how these new distance education technologies impact the social interaction of students. The findings of this study indicate students who communicate primarily through digital means, feel more connected to those with whom they are communicating as compared to those who communicate face-to-face.

It is also important that teacher preparation program realize the strength in online courses lies within the connectedness students feel through the effective use of today's technologies. Because social connectedness plays such a vital role in the preparation of future teachers, the results of this study helps to answer questions that often arise over the issue of quality. Can an online program provide the depth of knowledge and skills necessary for a teacher candidate to be successful in a Pre-Kindergarten – 12th grade classroom?

Through the expanded use of such technology as Polycom, Skype, Wimba, and Blackboard, the "quality" has become less critical. Academe has slowly adopted the technology and has realized there is more than just *Google*® available to faculty and students. Learning depositories have been created that enable students to listen to podcast; retrieve information through Quizba, a phrase sensitive semantic search engine; listen to lectures online; and, use reference tools like Zotero that automatically identifies bibliographic information and puts it in the proper format. With the advent of the use of these technologies in professional programs such as teacher education, the quality of programs can become greatly enhanced if only used.

The US Supreme Court issued a compelling decision in the 1930's regarding the use of current technology that is appropriate for this discussion. The case involved the T.J. Hooper, a tugboat. The T.J. Hooper and the ship it was guiding got into trouble in the Atlantic Ocean when a sudden storm blew up. The storm damaged the ship and caused injury and property lose to its clients, who promptly sued. At that time, common practice among tugs was to get weather information via hand signals from shore. Although radio had been introduced it was not in common use. The T.J. Hooper did not use radio, but if it had, the tug master would have known of the danger and been able to take its clients ship to shelter, thus avoiding damage to life, limb, and property. The case turned on the question of T.J. Hooper's responsibility: was adherence to common practice (e.g. hand signals) enough or did the situation demand "state of the art" (radio)? The court ruled that, when important matters are at stake, the legal obligation is to use the state of the art (Reynolds, 1989, p. ix citing Gilhool, 1982).

With the current economic conditions, colleges and universities are responsible for explore existing "state of the art" technologies that are readily available to promote social connectedness in virtual learning environments. Higher education administrators and faculty are faced with the challenge of "how to use technology to leverage resources and group dynamics in new ways to make fundamental changes in every part of the learning process" (Kimball, 2001, p. 38). Faculty can use existing technologies to foster social connectedness by creating learning community cohorts while also providing quality academic and social experiences for their students. There are many technologies readily available to students and faculty, such as networking tools like Facebook and MySpace and virtual environments like Second Life. Instructors using such programs create cohorts and teach lessons in online courses because the infrastructure of the network is already functioning successfully and most college students are already using it on a daily basis (Towner & VanHorn, 2007).

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Appendix

Table 1
Frequencies and percentages of demographic variables

Variable	Frequency	Percentage
Classification		
Junior Block	28	40.0
Senior Block	37	52.9
Not Reported	4	7.1
Program Type		
Traditional	36	52.2
Online	33	47.8
Gender		
Male	14	20.6
Female	54	79.4
Major		
Elementary Education	32	46.4
Secondary Education	25	36.3
Special Education	1	1.4
Dual Special/Elementary	6	8.7
Not Reported	5	7.2

Table 2
Item Statistics for Social Connectedness:

Item	n	Mean	SD
I have established friendships with students who take courses with me.	66	4.45	.706
I feel like I "fit in" with other students who take classes with me.	66	4.29	.837
I often study with other friends for exams, quizzes, etc.	66	3.21	1.21
I usually take courses with my friends.	66	4.38	.739
I share similar goals and values with other students in my major area of study.	66	4.23	.837

Scale: 1 = Strongly Disagree…5 = Strongly Agree

Table 3
Item Statistics for Learning Experiences

Item	n	Mean	SD
I am engaged in learning experiences that will be valuable to my career.	67	4.60	.552
Attending college is making me a well-round person.	67	4.54	.636
I feel that money I spend on tuition is worth it.	67	3.85	1.08
The degree I am earning is worthwhile.	67	4.67	.587
I believe the course I am taking will help me get a job in my field.	67	4.55	.658
There is a commitment to academic excellence in my program.	67	4.55	.658
I believe the courses I am taking will prepare me to teach.	67	4.09	1.06

Scale: 1 = Strongly Disagree…5 = Strongly Agree