Differences of Instructor Presence Levels in Predominately Online Versus Predominantly Not Online Courses within the Community College Setting

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Abstract

The increase in the number of students enrolling in online courses (Allen & Seaman, 2013; Bennett, Evans, & Riedle, 2007; Seide, 2016) and students' concern of the level of instructor presence in the predominately online course (Jaggars, 2014; Queiros and de Villiers, 2016; Tichavsky, Hunt, Driscoll, & Jicha, 2015) are reasons this research is necessary. Building on the work of Bowers and Kumar (2015), this case study considers students' perception of instructor presence in a predominately online and predominately not online course. Instructor presence was examined using the Community of Inquiry framework. The Community of Inquiry is a framework used to examine social, teaching and cognitive presence and the impact of such (Garrison, Anderson, & Archer, 2010). This research found no statistically significant difference in the levels of instructor presence in a predominately online course when compared to a predominately not online course. The two significant results in relation to instructor presence and course satisfaction were mixed. Course outcome and instructor presence is addressed with discussion and recommendations for further research included.

Introduction

Most students in higher education are enrolled in or by degree completion will have completed an online course. Sener (2012) explains that online courses are more accessible due to student life demands, location, schedules and desire of different learning programs. Increased enrollment in predominately online courses indicate multiple reasons student choose to enroll in the online learning environment. Online student enrollment in 2000 was 5.9% of college courses, with a significant increase to 32.1% by 2012. Students at community colleges and for-profit institutions are more likely to enroll in an online course (Ortagus, 2017). Considering increased student demands for online instruction, institutions must consider several factors when choosing to offer courses in online and predominately-not-online learning platforms.

The main student concern about predominately online courses is instructor contact. Students report a desire to interact with their instructor and fear lack of student-instructor interaction is the primary

concerns regarding the decision to enroll in predominately online courses (Jaggars, 2014; Queiros and de Villiers, 2016; Tichavsky, Hunt, Driscoll, & Jicha, 2015). Students considering online courses express concerns that instructor feedback will not be as immediate, that it would be difficult to know the instructor personally, and assignments or course information may be more difficult to comprehend (Tichavsky et al., 2015).

Literature Review

This study focuses on the aspect of students' perspective of instructor presence. Richardson, Koehler, Besser, Caskurlu, Lim and Mueller (2015) described instructor presence as the overlapping of teaching and social presence as defined in the CoI perspective. Richardson, et al (2015) explain that "instructor presence is more likely to be manifested in the "live" part of courses—as they are being implemented—as opposed to during the course design process" (para. 9).

Instructor Presence in Predominately Online and Predominately Not Online Courses

Instructor presence is an important aspect of both predominately online and predominately not online courses. A study conducted by Bowers and Kumar (2015) found that teacher and social presence were significantly higher in the online format as compared to the not online. When comparing the online with the not online course, the online class revealed that all three elements of teaching presence (instructional management, building understanding, and direct instruction) were identified as significant (Bowers & Kumar, 2015). No face-to-face interaction was utilized in the course. Behaviors such as "communicating clear expectations, helping students stay on track, and providing timely feedback" (Bowers & Kumar, 2015, p. 40) were ranked as most valued by students. Wisneski, Ozogul and Bichelmeyer (2015) utilized a mixed-methods study and found that three out of six instructors reported a statistically significant higher level of teacher presence in the predominately online learning environment as compared to predominately not online instruction. These three instructors utilized more than one mode of interaction. Reducing lecture time and increasing synchronous communication was found to increase teacher presence. Communicating instructional design and acknowledging student contributions were also found to increase the perception of teacher presence (Wisneski et al., 2015).

Instructor Presence and Course Satisfaction

According to Appleton-Kapp and Kentler (2006), student satisfaction is related to meeting course expectations. As students' course expectations are met, course satisfaction increases. Mayne and Wu (2011) conducted research at the graduate level for nursing. Researchers found that the social presence group (students who received targeted instructor interaction) reported that online learning expectations were met (Mayne & Wu, 2011). Ladyshewsky (2013) found that teaching and social presence created through instructor postings increases student satisfaction.

McWhorter (2013) who conducted research at a community college found that in the treatment group, "there was a positive, statistically significant relationship between students' perceived quality of learning and only teaching presence and social presence" (p. 137). Khalid and Quick (2016) conducted a study at a university in Malaysia. Participants in this study were in hybrid or fully online courses. Researchers utilized the Community of Inquiry framework combined with a satisfaction scale. Results of the study indicated that as student-teacher interaction increases so does course satisfaction. Also revealed was that as student-teacher interaction decreases so does course satisfaction (Khalid & Quick, 2016).

Instructor Presence and Course Outcome

Attrition rates are higher for predominately online courses (Liu, Gomez, & Yen, 2009; Cochran, Campbell, Baker & Leeds, 2013), therefore it is crucial for researchers to discover the impact instructor presence has on successful course outcome. Hostetter (2013) found that instructors'

correspondence providing prompt detailed feedback, using student names, expressing humor and feelings were ways that social presence was developed. This study discovered that social presence did correlate with better performance on assignments (Hostetter, 2013). Forty-three percent of university students reported believing that predominately online course success would have increased with more student-to-student interaction whereas this percentage increased to 50 % for student-to-teacher interaction (Lewis, 2010). Research conducted by Rockinson-Szapkiw, Wendt, Wighting, and Nisbet (2016), found that students who reported high levels of social, teacher, and cognitive presence also had higher course scores.

Conceptual Framework

This research was based on the Community of Inquiry (CoI) framework. CoI was developed to "provide order, heuristic understanding and a methodology for studying the potential and effectiveness of computer conferencing" (Garrison, Anderson & Archer, 2010, p. 6). There are three main elements of this framework including teacher, social and cognitive presence. Teacher presence includes the three roles of facilitating discourse, direct instruction and instructional design and organization. The CoI has been utilized by many researchers and the validity of the survey has been tested. A study by Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardson, & Swan, (2008) found the survey to be valid and an effective instrument for designing predominately online courses.

Methodology

The purpose of this study was to determine students' perception of instructor presence level in a predominately not online course compared to a predominately online course. The null hypothesis is there is no difference in students' perception of instructor presence in a community college course when comparing predominantly online students and predominately not online students. Also, studied was the relationship between a high level of instructor presence and a high level of course satisfaction. The null hypothesis is no relationship between a high level of instructor presence and a high level of course satisfaction. The last area researched was the relationship between a high level of instructor presence and a successful course outcome of a C or higher. The null hypothesis is no relationship between high level of instructor presence and successful course outcome.

Research Questions & Null Hypotheses

Research Question	Null Hypothesis
1. What are the descriptive summary statistics of students enrolled in predominately online and predominately not online courses?	
2. Is there a difference in students' perception of instructor presence in a community college course when comparing predominately online versus predominately not online courses?	$H_0$1: There is no difference in students' perception of instructor presence in a community college course when comparing predominately online students and predominately not online students.
3. Is there a relationship between a high level of instructor presence and high level of course satisfaction?	$H_0$2: There is no relationship between a high level of instructor presence and high level of course satisfaction
4. Is there a relationship between a high level of instructor presence and successful course outcome as defined by a C or higher?	$H_0$3: There is no relationship between a high level of instructor presence and successful course outcome as defined by a C or higher.

Survey Instrument

Surveys are tools to collect data that supports research and provides information (Fink, 2009). Participants were requested to complete a 15-question survey. Seven Likert scale questions pertained to instructor presence. These seven questions were selected from the CoI survey. One question was modified to address assignments instead of discussions, as the feature of discussion boards was not utilized in the courses selected. Two survey questions pertaining to students' expectations utilized in the study by Richardson and Swan (2003) were also selected for this study. There was a question about course satisfaction and the remaining questions focused on demographic information.

An announcement was made in both course settings with corresponding emails. There was only one announcement/email sent to the participants. Of the 16-week course there was a two-week time period given to complete the survey with the survey period stopping prior to finals week. The surveys were completed through the Learning Management System of Blackboard. Students were awarded an equivalent of a 100% quiz score for completing the survey.

Data Analysis

Data was compiled from the two courses and analyzed using SPSS v. 24 (IBM Corp., 2016). To analyze the level of instructor presence in the predominately online group and the predominantly not online group data from the survey results were collected. The institutional research staff extracted the information from the learning management system, removed identifying data and matched end course grades with survey data.

The level of instructor presence between the two groups, was analyzed using non-parametric tests including the Mann-Whitney U, Kendall tau and Spearman's rho. A significance level of $P < (.05)$

was used for all tests. The Mann-Whitney U test is an ideal test when measuring ordinal data and is the non-parametric alternative to the parametric Independent-samples t-test (Pallant, 2016). Kendall tau and Spearman's rho are the non-parametric tests used to determine relationship (Field, 2013).

Participants

Participants in this case study were a convenience sample and assigned to groups at time of college enrollment. Students enrolled in a 2-credit hour allied health course either predominantly online or predominately not online. There were 26 predominately online students with 25 completing the survey. Forty-five students were enrolled in the predominately not online course with forty completing the survey. A total of 65 students participated in the study.

Predominately online group:

Participants in the predominately online group consisted of 96% female and 4% male. All participants in the predominately online group reported an ethnicity of White. Eighty percent of the participants were enrolled in 12 or more credit hours with 20% enrolled in below 12 credit hours. Eighty-four percent or 21 participants had completed two or more online courses. Fifty-six percent of the participants were between the ages of 25-35 years old with 24% between 18 and 24.

Predominately not online group:

Ninety-eight percent of the participants in the predominately not online group were females and 2% were males. Eighty-eight percent of the participants reported White as an ethnicity with 3% reporting Hispanic or Latino and Black or African American. Eight percent identified as Native American or American Indian. Thirty-one students were in enrolled in 12 or more credit hours with 9 enrolled in below 12 credit hours. Sixty percent had completed two or more online courses. Fifty percent of the participants were between 25 and 35 years old with 30 percent between the ages of 18 and 24.

Results

Descriptive statistics for this study are displayed in Table 1.

Table 1
Descriptive statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Q1	65	1.48	.687	1	4
Q2	65	1.42	.583	1	4
Q3	65	1.43	.612	1	4
Q4	65	1.52	.664	1	4
Q5	65	1.38	.578	1	4
Q6	65	1.72	.761	1	4
Q7	65	1.35	.598	1	4
Q8	65	1.37	.575	1	4
Q9	65	1.38	.604	1	4
Q10	65	1.45	.587	1	4
Q11	65	1.97	.790	1	4
Q12	65	1.97	.175	1	2
Q13	65	1.18	.682	1	4
Q14	65	1.22	.414	1	2
Q15	65	3.02	.673	1	4
Grades	65	2.32	.709	1	5

Research question 2:
Is there a difference in students' perception of instructor presence in a community college course when comparing predominately online versus predominately not online courses?

The Mann-Whiney U suggests there was no statistically significant difference in instructor presence between the predominately online and predominately not online course modalities. Research failed to reject the null hypothesis of this question. Table 2 outlines the statistical results.

Table 2

Instructor Presence in Predominately Online Versus Predominately Not Online Courses

	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Mann-Whitney U	453.0	492.5	497.5	421.5	467.5	471.5	488.5
Wilcoxon W	1273.0	1312.5	1317.5	1241.5	1287.5	796.5	1308.5
Z	-.737	-.119	-.040	-1.204	-.527	-.422	-.193
Asymp. Sig(2-tailed)	.461	.905	.968	.229	.598	.673	.847

Research Question 3

Is there a relationship between a high level of instructor presence and high level of course satisfaction?

Results from the Mann-Whitney U show a statistically significant relationship between question 10 (course satisfaction) and questions 3 and 4 for the combined groups of predominately online and predominately not online participants. The null hypothesis for this research question is rejected.

Table 3

Course Satisfaction and Instructor Presence

	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Mann-Whitney U	468.0	383.0	355.0	367.5	46.5	461.5	431.0
Wilcoxon W	819.0	734.0	706.0	1108.5	1207.5	812.5	1172.0
Z	-.415	-1.801	-2.228	-1.971	-.450	-.487	-1.082
Asymp. Sig(2-tailed)	.678	.072	.026	.049	.652	.626	.279

The researcher further investigated this question by separating the two groups. A Kendall's tau non-parametric test was utilized for this inquiry. Table 4 shows the results of the predominately online only group with a statistically significance relationship for course satisfaction when considering questions 3 and 4. The results of these two questions were mixed.

Table 4

Course Satisfaction and Instructor Presence (Predominately Online Only)

	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Correlation Coefficient	.113	-.272	-.442	.516	.238	-.356	.000
Sig. (2-tailed)	.578	.182	.030	.010	.243	.072	1.00
N	25	25	25	25	25	25	25

Table 5 displays the results of the predominately not online group for course satisfaction and

instructor presence. There was no statistically significant relationship between instructor presence and course satisfaction.

Table 5

Course Satisfaction and Instructor Presence (Predominately Not Online)

	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Correlation Coefficient	-.071	-.120	-.209	.150	-.080	.040	.280
Sig. (2-tailed)	.642	.444	.178	.328	.609	.792	.074
N	40	40	40	40	40	40	40

Research Question 4

Is there a relationship between a high level of instructor presence and successful course outcome as defined by a C or higher?

The Spearman's rho analysis suggests there was no statistically significant relationship in course outcome and level of instructor presence. Research failed to reject the null hypothesis of this question. Table 6 outlines the statistical results.

Table 6

Instructor Presence and course outcome

			Grades
Spearman's rho	Grades	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	62
	Q1	Correlation Coefficient	-.062
		Sig. (2-tailed)	.634
		N	62
	Q2	Correlation Coefficient	-.201
		Sig. (2-tailed)	.116
		N	62
	Q3	Correlation Coefficient	-.026
		Sig. (2-tailed)	.839
		N	62
	Q4	Correlation Coefficient	-.036
		Sig. (2-tailed)	.779
		N	62
	Q5	Correlation Coefficient	.116
		Sig. (2-tailed)	.368
		N	62
	Q6	Correlation Coefficient	-.121
		Sig. (2-tailed)	.348
		N	62
	Q7	Correlation Coefficient	.118
		Sig. (2-tailed)	.361
		N	62

The researcher further investigated this question (Research question 4) by separating the two groups. Table 7 shows the results of the predominately not online only group resulting in no statistically significance relationship for course outcome and instructor presence.

Table 7

Instructor Presence and Couse Outcome (Predominately Not Online)

			Grades
Spearman's rho	Grades	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	40
	Q1	Correlation Coefficient	-.123
		Sig. (2-tailed)	.450
		N	40
	Q2	Correlation Coefficient	-.167
		Sig. (2-tailed)	.303
		N	40
	Q3	Correlation Coefficient	-.131
		Sig. (2-tailed)	.420
		N	40
	Q4	Correlation Coefficient	-.234
		Sig. (2-tailed)	.146
		N	40
	Q5	Correlation Coefficient	.203
		Sig. (2-tailed)	.209
		N	40
	Q6	Correlation Coefficient	-.197
		Sig. (2-tailed)	.222
		N	40
	Q7	Correlation Coefficient	.153
		Sig. (2-tailed)	.346
		N	40

Table 8 displays the results of the Spearman's rho when investigating a possible relationship in course outcome and instructor presence in the predominately online group. No relationship was found.

Table 8

Instructor Presence and Couse Outcome (Predominately Online)

			Grades
Spearman's rho	Grades	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	24
	Q1	Correlation Coefficient	-.103
		Sig. (2-tailed)	.633
		N	24
	Q2	Correlation Coefficient	-.397
		Sig. (2-tailed)	.055
		N	24
	Q3	Correlation Coefficient	.026
		Sig. (2-tailed)	.902
		N	24
	Q4	Correlation Coefficient	.186
		Sig. (2-tailed)	.385
		N	24
	Q5	Correlation Coefficient	-.017
		Sig. (2-tailed)	.936
		N	24
	Q6	Correlation Coefficient	-.173
		Sig. (2-tailed)	.419
		N	24
	Q7	Correlation Coefficient	.103
		Sig. (2-tailed)	.633
		N	24

Figure 1 reveals the grade distribution for the participants.

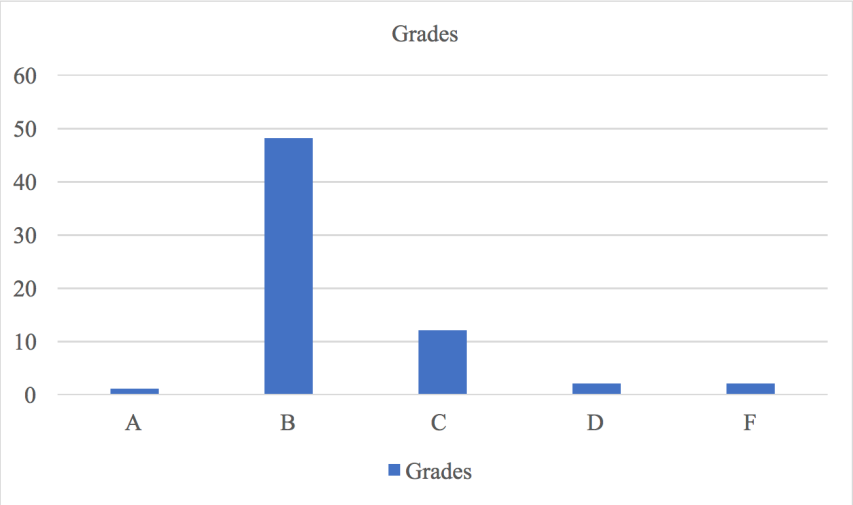

Figure 1. Grade distribution for all participants completing the survey.

Limitations of the Study

The limitations of this study must be noted. First, the study was conducted at community college in

a rural Midwest location utilizing a convenience sample. The results of the study may not be generalizable to other institutions of higher learning. Second, the study looked at only one course in the Fall semester. The study focused on one course that was available in both modalities. The inclusion of other courses at different times of the academic year could have provided a better representation of the student population.

The demographics of the participants is another limitation of the study. There were only two males, with the remaining of the participants (63) identifying as female. A lack of diversity among ethnic groups was noted. Sixty of the participants identified as White with only one identifying as Hispanic or Latino, one as Black or African American and three were Native American or American Indian. A larger scale study that includes a diverse population over an extended period of time will provide a more comprehensive picture and impact of instructor presence.

Discussion

The purpose of this study was to address the gap in research related to the students' perception of instructor presence in the predominantly online setting compared to the predominately not online setting. This review was conducted using a survey analysis. The results of this research show a similar level of instructor presence with no statistically significant difference between the two courses in the different learning modalities. These results do not support the study by Bowers and Kumar (2015) and Wisneski, Ozogul and Bichelmeryer (2015) who reported a higher level of instructor presence in the online course. However, this study does address students' concern regarding limited or less instructor interaction (Jaggars, 2014, Tichavsky, Hunt, Driscoll & Jicha, 2015) in the predominantly online course in revealing that there is no significant difference in the levels of instructor presence when comparing predominately online and predominately not online courses. This study suggests that the level of instructor presence explained as the belief that someone is leading the course (Kelly, 2012) and quality interaction is occurring while the course is taking place (Richardson, Koehler, Besser, Caskurlu, Lim, & Mueller, 2015) is similar in the predominately online course when compared to the predominately not online course. This data suggests that a student will receive similar instructor encouragement, facilitation, feedback, assistance and guidance in both educational settings.

Additional interest included the relationship between course satisfaction and instructor presence. The Mann Whitney U test determined a statistically significant for questions 3 and 4. Question 10 (Overall, I am satisfied with this course) was analyzed against the first seven questions of the survey which related to instructor presence. Two questions resulted in a statistical significance. To further analyze these questions the groups were divided by the learning modalities of predominately online and predominately not online. In the predominately online course the two significant results are mixed. Question 3 (The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking) resulted in a negative relationship (U=.-442, p=.03). Question 4 (The instructor encouraged course participants to explore new concepts in this course) resulted in a positive statistically significant relationship (U=512, p=.01) with course satisfaction and instructor presence. The statistical results for this analysis do indicate the strongest correlation with these results. This positive relationship aligns with Ladyshewsky (2013) who also found that instructor teaching presence influenced course satisfaction in a positive manner. These mixed results suggest a need for more statistical power. The small sample size (25) could have impacted the results as larger sample sizes are more accurate representations of the population (Field, 2013). The predominately not online group did not find a statistically significant relationship between instructor presence and course satisfaction.

The other component of this research was the level of instructor presence and successful course outcome. Due to the grade distribution in both classes this was difficult to determine. Successful course outcome was considered to be a grade of C or higher in the course. Final grades in the courses revealed that only four participants did not have a successful course outcome with most of

the students in the B range. The statistical analysis was completed by looking at the total group of participants and at each separate group. No relationship was found in any configuration. The grade distribution could be due to the students' higher interest in the course. This is a course required for a specific area of interest which can impact grade. Hoover (2017) found that interest and academic achievement have a positive correlation. This would support the grade distribution in this course. Although this skewed grade distribution could have impacted the results of this study it also reveals a successful course outcome for both learning modalities.

Implications for policy and practice

Instructor presence is important to a student who is deciding to take a predominately online course (Jaggars, 2014; Queiros and de Villiers, 2016; Tichavsky, Hunt, Driscoll, & Jicha, 2015). Training and instruction to better understand instructor presence will be necessary for some faculty members (Casey & Kroth, 2013). The results of this study lend to form various observations and recommendations. To assist in the assurance of a positive perception of instructor presence, policies regarding online or virtual office hours should be considered as a faculty requirement. A study conducted by Roby, Ashe, Singh, and Clark, (2013) stated "Students also expressed desire for direct access to the instructor through defined office hours for the course, virtual office hours, and faster response times to questions" (p. 34). This requirement would align with a predominately not online faculty member requirement allowing for equivalent availability in the two learning modalities. However, as noted in the study by Roby, et al (2013) virtual office hours are often expected in addition to the flexible and frequent availability.

This study found a statistically significant relationship between instructor presence and course satisfaction in relation to the instructor providing encouragement in learning new concepts. Studies (Wisneski, Ozogul & Bichelmeyer, 2015; Moore, 2014) discovered that when instructors provide encouragement through direct communication a higher level of teacher presence can be facilitated. Direct communication can be established in a variety of ways including, using students' name in communications (Richardson, Koehler, Besser, Caskurlu, Lim and Mueller, 2015) and utilizing online discussion tools including camera enhanced communications (Tichavsky, Hunt, Driscoll, & Jicha, 2015). Moore (2014) interrupts direct interaction to be emails directed to the individual student. Other ways to provide direct communication is through email and message boards provided through the learning management system in which the course is provided. Wisneski, Ozogul, & Bachler (2015) suggest utilizing a variety of methods to communicate with students.

Recommendations for Future Studies

While the current study did reveal that instructor presence in a predominately online course can be equivalent to that in a predominately not online course, future studies need to address what course elements provide the sense of instructor presence from students' point of view. Moreover, a list of elements supporting instructor presence would be highly beneficial to the field. To identify these course elements a qualitative study using focus groups or student interviews could ask students questions that will indicate what instructors do to augment a sense of presence. A question to present to students is, what could an instructor do to create presence? Another question relating to communication with instructors could address how often and in what method does the student feel most comfortable communicating with instructors. A student's preference of asynchronous or synchronous communication would also need to be addressed.

Anderson, Rourke, Garrison, and Archer (2001) discuss the importance of the teacher and student roles therefore future research needs to also consider how active a student is within the course. Further research needs to include more than one course and needs to be during different times of the academic year. Incorporating additional courses would allow researchers to identify the possibility of varying levels of instructor presence in different types of courses (math versus social science). Instructor presence could vary from fall, winter, spring and summer sessions. Future studies will

contribute to the improvement of student outcome, course satisfaction, faculty interactions and the quality of course delivery.

Conclusion

This study investigated instructor presence in the predominately online and predominately not online course settings. Findings included that instructor presence is similar in the different learning modalities. Students can expect to receive similar interactions and supports from the instructor in the predominately online and predominately not online settings. Also, revealed in this study is that course satisfaction and instructor presence are related. The encouragement of the instructor impacts course satisfaction especially in the predominately online course. Future research should evaluate students' perception of pedagogies which enable the online learner to readily connect with the instructor. Future researchers would benefit from with a larger sample size and different. Based on the research in this study of instructor presence, online instruction can be meaningfully designed to engage learners and positively impact their learning.

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