

Different Formats, Equal Outcomes? Comparing In-Person and Online Education in Public Relations

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A survey of students enrolled in undergraduate online and in-person courses in public relations ($N = 452$) allowed for comparisons between the two course formats in terms of student motivations, satisfaction, grades, and characteristics that predict success in online environments. Findings revealed that student satisfaction and grades were equivalent between the online and in-person courses. Additionally, the Test of Online Learning Success (TOOLS) was applied to public relations education, and findings indicated some differences but more similarities among students in online and in-person classes regarding the following five factors: academic skills, computer skills, independent learning, dependent learning, and need for online learning (Kerr, Rynearson, & Kerr, 2006). Implications are discussed related to students, faculty, staff, and administrators.

Keywords: Online education, distance learning, public relations, survey, Test of Online Learning Success (TOOLS)

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A recent article by Seth Godin (2017) offered provocative ideas and stirred debate about higher education. The article's headline, "No laptops in the lecture hall," with the sub-head, "How about this instead: No lecture hall," summarizes the author's thoughts about traditional college lectures being antiquated and inefficient. Instead of large in-person lectures, he suggests short (8-minute) video lectures delivered online, followed by interactive conversations. He does not seem to argue entirely for online education, but perhaps for a hybrid experience, which some universities are already offering. Godin's article is just one example of the differing opinions that exist about various formats of education as our society has grown increasingly dependent upon technology for many forms of communication, entertainment, and education.

In recent years, a number of researchers have studied online teaching and learning, sharing perspectives of both faculty and students from various disciplines (e.g., Donavant, 2009; Kerr, Rynearson, & Kerr, 2006; Kim, Liu, & Bonk, 2005; Kleinman, 2005; Poniatowski, 2012; Song, Singleton, Hill, & Koh, 2004; Wallace, 2003). While an image of successful online education is taking shape, more research is needed to continue to understand this educational practice, particularly in the fields of journalism and mass communication (JMC), including public relations (Castañeda, 2011; Moore, 2014). Because these fields rely on media and technology that change rapidly and because these majors are popular at colleges and universities across the United States, studying communication education in an online setting could benefit students, faculty, staff, and administrators in terms of determining if, when, and how to offer such courses, as well as who might be best to teach and take such classes.

As students' needs change and as universities across the country experience budget cuts and issues with traditional classroom settings, online education is growing at an incredible rate (Kauffman, 2015). Online

course options have been proliferating since the 1990s. In 2001, 56% of all two- and four-year degree-granting institutions offered distance education courses with more than 2.8 million students enrolled in these courses across the United States (Waits & Lewis, 2002). By 2010, student demand for online courses and programs increased dramatically with more than 6.5 million students enrolled in at least one online course (Allen & Seaman, 2011). More recent data indicate even more growth in online course offerings with 31.6% of all students taking at least one online course; more than half of those taking online courses (16.7%) are taking a combination of online and traditional courses (Seaman, Allen, & Seaman, 2018). Indeed, while online course options are on the rise, most U.S. colleges and universities still offer traditional classes to accompany their online course offerings. When students have a choice, do they prefer traditional or online public relations courses? And which type of PR course leads to better learning outcomes, grades, or satisfaction among students? These are some of the questions this research seeks to answer. Additionally, what motivates public relations students to take one type of course over the other? And what characteristics are helpful for succeeding in online public relations courses?

A measure of online student characteristics known as TOOLS—Test of Online Learning Success—has been constructed and validated to document the student characteristics that are important for achieving success in online courses (Kerr et al., 2006). However, it is not known whether TOOLS works across academic disciplines, nor whether these characteristics are very different from what makes students successful in traditional classroom settings as well (Kauffman, 2015). Simply put, more research is needed into what makes online teaching and learning successful across disciplines, including in JMC and public relations.

The purpose of this paper is to explore these issues related to online education in public relations (specifically) by comparing four

undergraduate courses offered at the same university and taught by the same professor in the same semester in two consecutive years. By comparing student grades and satisfaction, exploring responses to a survey about motivations for taking one course over the other, and assessing the student characteristics measured by TOOLS, this research aims to contribute to our understanding of online education, particularly in JMC and public relations.

Literature Review

As digital natives continue to enter higher education programs, demand for online courses has grown. What once may have been perceived as a phenomenon associated with for-profit institutions is now a focus for traditional public universities. According to recent data, public universities teach the largest portion of online students (67.8%). However, these online enrollments are highly concentrated; only 5% of educational institutions have almost half of all distance education students (Seaman et al., 2018). Interestingly, students are not necessarily taking online courses because of distance. More than half (52.8%) of all students who took at least one distance course also took courses on campus, and more than half (56.1%) of those who took only online courses actually reside in the same state as the institution in which they were enrolled; a very small proportion (less than 1%) of online students are international. Despite the fact that the majority of students taking online courses are also taking more traditional, in-person courses at the same time, the number of students taking courses on a campus dropped by more than one million (or 6.4%) between 2012 and 2016 (Seaman et al., 2018). To remain competitive and economically viable in this environment, universities have become more proactive about encouraging faculty to develop online courses and degree programs, and JMC programs have responded accordingly (Allen & Seaman, 2010; Castañeda, 2011; Palfrey & Glasser, 2008).

Online Education in Journalism, Mass Communication, and Public Relations

According to Sutherland (2003), JMC programs first implemented “web features” into courses in 1985 and 1990. Referring to diffusion of innovations theory, Sutherland (2003) dubbed these programs “innovators,” and those that started offering such courses in 1993-94 were “early adopters.” Between 1995 and 1999, 101 additional programs began implementing web features into courses, meaning the early and late majority of JMC programs—and even the “laggards” of those surveyed at the time—were offering courses with online components by 2000 (Sutherland, 2003). In a more recent survey of accredited JMC programs (Castañeda, 2011), online courses, defined as those that deliver 80% or more of content online with no face-to-face meetings, were more common than hybrid courses, in which 30-79% of content is provided online with some in-person meetings. Web-facilitated courses, which means 1-29% of content is delivered online, were the most common among accredited JMC programs at the time (Castañeda, 2011). This study did not offer more specific information about public relations courses, in particular.

Some say that research in online learning seems to fall into four camps: there is no significant difference between online and traditional learning; online learning is more effective than face-to-face learning; online learning is less effective than face-to-face learning; and results of comparisons are too mixed, or courses are too different to draw effective conclusions (Castañeda, 2011). Indeed, various studies have reported different results in terms of student grades and satisfaction. At least two studies have compared online and traditional management classes and found no significant differences between the two classes in terms of grades (Daymont & Blau, 2008; Friday, Friday-Stroud, Green, & Hill, 2006). Moore and Jones (2015) studied introductory journalism writing courses and found that students in a hybrid course were more satisfied than

students in an online course; the authors found mixed results in terms of grammatical skills among students by the end of the courses. However, multiple instructors taught these courses over the course of four semesters, so results could be attributed to a number of factors (other than or in addition to the course format).

One study that compared different formats of online learning for a mass communication course concluded that online discussion boards may help students who have difficulty expressing themselves in a traditional classroom (Rosenkrans, 2001). In particular, asynchronous discussion environments (where participants can log into a site anytime and participate at their convenience) were preferred by students (Rosenkrans, 2001). Similarly, research on diversity and online education reported that some students prefer asynchronous discussion boards because they provide a permanent transcript and time to reflect and formulate responses to thought-provoking questions (Shlossberg & Cunningham, 2016).

While numerous public relations scholars have turned their attention toward faculty and student use of technology in the classroom in recent years (e.g., Curtin & Witherspoon, 2000; Fraustino, Briones, & Janoske, 2015; Kinsky, Freberg, Kim, Kushin, & Ward, 2016; Tatone, Gallicano, & Tefertiller, 2017), there seems to be limited research into online education in public relations. One study (Kruger-Ross & Waters, 2013) applied the situational theory of publics to online learning and found that awareness (or problem recognition), involvement, and constraint recognition were related to students' ($N = 182$) information seeking and processing in online PR courses. Another study examined instructor and student interaction across multiple online public relations courses taught by various faculty at one university over the course of two years (Moore, 2014). The author found that student-student interaction and self-discipline seemed to be the biggest predictors of success and satisfaction with online classes. Moore (2014) also noted that research regarding online

PR courses had been “particularly deficient” and suggested that future research compare online PR classes with traditional formats (p. 272).

This research seeks to fill that gap by comparing four undergraduate public relations courses taught by the same professor in the same semester in consecutive years (fall 2016 and fall 2017) at the same university. With all other elements being equal, this study aimed to explore how course format (online vs. in-person) might affect student satisfaction and grades, as well as student motivations for taking one type of course over the other. With these goals in mind, this study asked the following preliminary research questions:

RQ1: What motivates students to take an online versus in-person course in public relations?

RQ2: What is the relationship between course format (online vs. in-person) and student satisfaction?

RQ3: What is the relationship between course format (online vs. in-person) and student grades?

Student Characteristics for Online Learning Success

Although there seems to be limited research into online education in JMC and public relations, there is significant research about online education in general, including the characteristics that might make students successful in online learning environments. Kauffman (2015) summarized the literature related to student characteristics and skills needed to be successful in online courses in various disciplines. According to existing research, these characteristics and skills include the following: higher emotional intelligence, including self-awareness of needs and adequate management of feelings (Berenson, Boyles, & Weaver, 2008), self-discipline, time management, organization, planning, and self-evaluation skills (Muilenburg & Berge, 2005; Ruey, 2010; Waschull, 2005; Yukselturk & Bulut, 2007). Additional research has shown success in online courses among students who have visual and read-write learning

styles (Eom, Wen, & Ashill, 2006), as well as those who are self-motivated and self-directed, demonstrating an internal locus of control, with above-average communication and technological skills (Dabbagh, 2007).

These findings make sense when one considers the nature of online learning. As Kauffman (2015) noted: “More responsibility is placed on the learner, especially in asynchronous courses. The student is responsible for reviewing course material, taking exams at scheduled intervals, etc., which requires adequate self-regulation skills” (p. 7). Other research confirms the need for students to feel involved, have a sense of self-efficacy, and to be self-directed in their learning in online, flipped, or blended courses (Chyr, Shen, Chiang, Lin, & Tsai, 2017). Perhaps not surprisingly, some research has shown that students report feeling alienated or isolated when taking classes in online environments (McInnerney & Roberts, 2004; Tsai, 2013). However, encouraging online academic help-seeking (OAHS), which refers to students requesting assistance from peers or others through the internet, seems to help (Cheng & Tsai, 2011; Chyr et al., 2017). So, how do students know if they possess the skills and characteristics necessary to succeed in online courses, and how can faculty and administrators help students determine this fit before enrolling in online courses that may not be a good fit for their learning styles?

One measure—the Test of Online Learning Success (TOOLS)—has been created and validated to empirically assess such characteristics in students (Kerr et al., 2006). It measures subscales identifying students’ individual behavioral strengths and weaknesses regarding online learning. TOOLS was created over several years through three studies that assessed myriad characteristics that have been observed to be predictive of student success in online settings. While these studies were extensive, all of the research was conducted in Texas with education and social science courses. As scholars have noted (Kauffman, 2015; Kerr et al., 2006), more research is needed to explore whether TOOLS translates across diverse

geographic regions, university types, and academic disciplines.

Much of the TOOLS research thus far seems to focus on non-traditional students. One study (Donavant, 2009) applied TOOLS to examine professional development training for police officers and found no statistically significant differences based on their TOOLS scores between those who completed and those who did not complete the training. Another study assessed discussion board post patterns among 14 students in a Teaching English as a Second Language (TESOL) course and found few differences in terms of quality or frequency of posts among students based on their TOOLS scores (Kim & Bateman, 2010). To date, it does not seem that TOOLS has been applied to students in JMC courses, including public relations, and there does not seem to be much research comparing online and in-person courses, which Moore (2014) suggested is needed.

The test of online learning success includes 45 items measuring five characteristics that correlate with student success in terms of course grades and also with other characteristics that predict positive online learning experiences. The five areas assessed by TOOLS include academic skills, computer skills, independent learning, dependent learning, and need for online learning (Kerr et al., 2006). More specifically, the “academic skills” assessed by TOOLS refer to proficiency in reading and writing, which are arguably important for any type of learning. These academic skills have been reported to be the best predictor of student performance as measured by grades in online courses (Kerr et al., 2006). The test also measures independent learning and dependent learning, which are essentially the inverse of each other. The independent learning subscale yielded the most consistent results across previous studies, and it consists of items that assess a student’s ability to manage time, balance multiple tasks, and set goals. It also measures traits and behaviors regarding self-discipline, self-motivation, and personal responsibility. The items that

measure dependent learning, on the other hand, describe students who need reminders from faculty regarding assignment due dates and other characteristics that would seem to make most learning (in-person or online) more difficult. According to previous research, students with high independent learning scores received significantly higher course grades than those with low independent learning scores (Kerr et al., 2006).

Computer skills, also known as computer literacy, is the fourth dimension assessed by TOOLS. Of course, one can imagine why such skills might be important to facilitate online learning or any learning in most modern classroom settings; however, previous research has shown that there was no difference in course grades when comparing students with high versus low levels of computer skills. As scholars note, as long as students have some degree of computer skills and as long as instructors and/or institutions provide some degree of technical support, even students with poor computer skills can perform well in online courses (Kerr et al., 2006).

Finally, TOOLS measures need for online learning, which consists of items related to students' schedules, geographic distance from campus, and other elements that may make online learning more advantageous for some students. It makes sense that this subscale would predict a student's need or desire for taking online classes, but what about the other subscales measured by TOOLS? Do these characteristics differ across students taking an online versus in-person course in public relations? Because there is limited research on TOOLS and it does not seem to have been applied to students in the fields of JMC or public relations, this study proposes a hypothesis related to one of the student characteristics measured by TOOLS and then asks a research question related to the remaining characteristics.

H1: Students in online courses will show higher levels of need for online learning, one of the characteristics measured by TOOLS,

than students in in-person courses.

RQ4: What is the relationship between course format and the other student characteristics measured by TOOLS (i.e., academic skills, computer skills, independent learning, and dependent learning)?

The Current Study

The current study compares four undergraduate Public Relations Principles courses—two online and two in-person—taught by the same professor in consecutive fall semesters at the same university—a large, public institution in the United States. All four classes were large. In the first year, 120 students enrolled in the in-person course, and 135 students enrolled in the online course. In the second year, the school lowered the number of students who could enroll in both courses, and the in-person class had 106 students while the online class had 113 students. The instructor aimed to keep the two course formats similar in most respects, other than the modes of course content delivery. For example, the in-person classes met twice a week, for an hour and 15 minutes per class period. Meanwhile, most weeks, students in the online courses had to watch two “modules” per week. The modules consisted of the same (or similar) PowerPoint slides used in the in-person class, and the instructor used Adobe Presenter to record a voiceover to narrate the content in the slides. In conformance to recommendations provided by the university, the modules were typically no more than 10 to 15 minutes in length, so it can be argued that the in-person students received more content, but the modules that were made for the online classes contained the same basic information that would be important to students regarding course concepts, definitions, and examples that would aid in student understanding and completing course assignments. The online courses utilized asynchronous discussion boards, audio and video components, and various types of student-instructor content interactions that are recommended by previous

online education research (Fabry, 2009; Moore, 2014; Rosenkrans, 2001).

All four courses used Blackboard as the content management system, although the online classes relied on Blackboard to a greater extent. Both class formats also relied upon four exams as the main method of assessment (80% of the final grade). The other 20% of the final course grades consisted of discussion board assignments in the online classes and of class attendance, participation, and in-class assignments for the in-person classes. Students in both course formats had approximately 10 discussion board or in-class assignments throughout the semester. The online class was asynchronous, meaning discussion boards were open to students 24 hours a day, 7 days a week; however, there were strict due dates for discussion board assignments as well as for exams. Course syllabi and other information are available upon request.

Methods

This study employed an online survey of students in the four undergraduate Public Relations Principles courses described at the end of the literature review. Online education researchers encourage the use of surveys to uncover students' responses regarding effectiveness of such courses (Graham & Scarborough, 1999; Picciano, 1998; Rosenkrans, 2001). The questionnaire included the 45 items that measure the five subscales assessed by TOOLS—academic skills, computer skills, independent learning, dependent learning, and need for online learning—along with items designed to measure student motivations for taking a particular course, as well as satisfaction with the course. Demographic items also assessed students' gender, age, race/ethnicity, year in school, major, and employment status. There was also one open-ended question that asked students for additional comments about the course. Final grades were pulled from both courses to help answer the research question related to course grades.

The online survey was developed using Qualtrics software and was

distributed via email to students in the two courses in late November 2016 and then to the next set of two courses around the same time the next year (late November 2017). Participation was not required, but students were offered extra credit for completing the survey. The survey was anonymous, and all research procedures were approved by the university's institutional review board. The body of the email and the consent form students read before participating in the study noted that taking the survey was voluntary and anonymous. Students' emails and names were not collected, and students were notified they would not be personally identified in any published results. Teaching assistants tallied the extra credit points for the students. In terms of the rationale for the survey, the instructor explained that the purpose of the study was to explore motivations for taking the course, as well as "how the class has been for you." The instructor also relayed the following to students: "There are also several items in the survey that will help educators determine what characteristics are important for success in online and traditional course offerings."

Survey Measures

After identifying which section of the course students were in (online or in-person), students were asked the following two questions about their motivations: "Why are you taking this course?" and "Why did you choose this section of this course?" Response options are discussed in the findings section related to RQ1.

Student satisfaction was measured with three items adapted from previous research (Kim et al., 2005; Song et al., 2004). Students were asked to indicate the extent to which they agree or disagree with the following statements: "Generally or overall, I am satisfied with this course"; "I would recommend this course to a friend"; and "Compared to other similar courses, I feel like I learned a lot in this course." Response options were on 5-point Likert-type scales ranging from strongly disagree (1) to strongly agree (5). After collecting responses, these items were

assessed for reliability and demonstrated internal consistency (Cronbach's $\alpha = .88$). Thus, these items were summed and averaged to create a composite measure of satisfaction ($M = 4.32$, $SD = .67$)

The 45 items making up the five subscales assessed by TOOLS are listed in Appendix A. Participants were asked to rate their agreement with all of the statements using a Likert-type response format ranging from 1 (strongly disagree) to 5 (strongly agree). After collecting survey responses, all of the TOOLS subscales were assessed for reliability and demonstrated internal consistency. Specifically, reliability measures were as follows: academic skills ($\alpha = .74$, $M = 3.94$, $SD = .41$); computer skills ($\alpha = .96$, $M = 4.71$, $SD = .49$); independent learning ($\alpha = .84$, $M = 4.16$, $SD = .48$); dependent learning ($\alpha = .81$, $M = 3.61$, $SD = .80$); and need for online learning ($\alpha = .85$, $M = 2.67$, $SD = .94$). The items in each TOOLS subscale were summed and averaged to create composite measures for further analysis.

Data Analysis

Data analysis was performed using SPSS (Version 24.0) and jamovi (jamovi.org, n.d.). The results of the analyses are described next, beginning with demographic information about the survey respondents.

Findings

As mentioned, 226 students enrolled in the two in-person classes over the course of the two fall semesters. The online classes had 248 students the same two consecutive fall semesters; it should be noted that the online courses had five students drop out or withdraw from the class the first year. During the second year, one student moved from the online class to the in-person class because she was visually impaired and decided the in-person class would be better for her. The survey was completed by 452 students across the two classes (in-person $n = 207$; online $n = 245$), for a response rate of 95%.

The demographics of the class formats were similar in some

ways. The average age of students in all four classes was about 20, and the majority of students in both class formats were white (about 83% in-person; almost 85% online). Both class formats were majority female, with more male students in the in-person sections (22%), compared with the online sections (11%). The in-person classes had more public relations majors (49%) compared with the online classes (22%), while the online classes had more marketing/business and “other” majors (51%) than the in-person classes (31%). In terms of employment, the online classes had more students employed either part-time or full-time (65%) when compared with the in-person classes (50%). Other demographic information about the students in both course formats can be found in Table 1.

The first research question (RQ1) asked: “What motivates students to take an online versus in-person course in public relations?” The majority of students in both course formats took the course because it was required for their major or minor, and for some it fulfilled an elective requirement. However, the in-person classes were filled with primarily PR majors (65%, $n = 134$) followed by some PR minors (29%, $n = 60$), while the online classes were filled with primarily PR minors (47%, $n = 116$) followed by some PR majors (35%, $n = 86$). There were more students taking the course to fulfill an elective requirement in the online classes (17%, $n = 41$) than in the in-person classes (5%, $n = 10$). One student in the in-person format and three students in the online format selected “the topic sounded interesting” as the main reason for taking the course.

Beyond major, minor, and elective requirements, the two major motivations for taking a particular format of the course came down to scheduling and preference. More specifically, the majority of students in the in-person format (58%, $n = 121$) selected “the course days and times fit my schedule,” while the majority of students in the online format (76%, $n = 187$) selected “the online option best fit my busy schedule.”

Table 1. Sample characteristics by course format (In = In-person; On = Online)

| Variables | In (<i>N</i> or <i>M</i>) (% or <i>SD</i>) | | On (<i>N</i> or <i>M</i>) (% or <i>SD</i>) | |
|------------------------|---|-------|---|-------|
| Age | 20.14 | 1.61 | 20.60 | 1.11 |
| Gender : | | | | |
| Male | 45 | 22% | 27 | 11% |
| Female | 161 | 78% | 218 | 89% |
| Prefer Not to Answer | 1 | < 1% | 0 | 0% |
| Race/Ethnicity: | | | | |
| American Indian | 1 | < 1% | 0 | 0% |
| Asian/Pacific Islander | 5 | 2.4% | 7 | 2.9% |
| Black/African American | 17 | 8.2% | 19 | 7.8% |
| Hispanic/Latino | 5 | 2.4% | 7 | 2.9% |
| White/Caucasian | 172 | 83.1% | 208 | 84.8% |
| Other | 7 | 3.3% | 4 | 1.6% |
| Major: | | | | |
| Public Relations | 102 | 49.3% | 55 | 22.4% |
| Advertising | 13 | 6.3% | 12 | 5.0% |
| Journalism | 6 | 2.9% | 20 | 8.2% |
| Other Communication | 22 | 10.6% | 34 | 13.8% |
| Marketing/Business | 31 | 15.0% | 62 | 25.3% |
| Other | 33 | 15.9% | 62 | 25.3% |
| Year in School: | | | | |
| First Year | 2 | < 1% | 4 | 1.6% |
| Second Year | 93 | 44.9% | 41 | 16.7% |
| Third Year | 75 | 36.2% | 112 | 45.7% |
| Fourth Year | 35 | 16.9% | 84 | 34.3% |
| Fifth Year + | 2 | < 1% | 4 | 1.6% |
| Employment: | | | | |
| Full-time | 7 | 3.4% | 14 | 5.7% |
| Part-time | 96 | 46.4% | 144 | 58.8% |
| Not employed | 104 | 50.2% | 87 | 35.5% |

Note. Percentages are based on $n = 207$ for the in-person class and $n = 245$ for the online class, with the exception of age, which had 206 responses for that particular item for the in-person class.

The second most selected option for students in the in-person format was “I prefer traditional courses to online courses” (32%, $n = 67$), while the second most selected option for students in the online format was “I prefer online courses to traditional courses” (11%, $n = 27$). Approximately 3% of students ($n = 7$) in the in-person courses selected, “I have never taken an online course and did not wish to take one,” while two students in the online courses selected, “I am not on campus this semester so the online course was my only option.” Another 4% of students ($n = 8$) in the in-person courses selected “other” and specified things like, “I have ADHD and focus better in an in-person class”; “I am a PR major and decided my PR foundation courses should be taken in person”; “I took the online version and it was far more difficult so I decided to retake it and take the in-person class instead”; and “I am a transfer and wasn’t sure how I felt about doing an online course my first semester.” Similarly, about 3% of students ($n = 7$) in the online courses selected “other” and wrote in reasons such as: “I needed the class due to medical instructions” and “this was the only section available when I registered.”

The second research question (RQ2) asked: “What is the relationship between course format (online vs. in-person) and student satisfaction?” Results from an independent samples t-test indicated that there were no statistically significant differences in terms of satisfaction between students in the in-person classes ($M = 4.35$, $SD = .67$) and the online classes ($M = 4.30$, $SD = .68$), $t = .839$, $p = .402$. Because of the marginal differences observed between students in the two course formats, follow-up statistical equivalence tests were conducted using two one-sided tests (TOST) procedures (see Lakens, 2017, for a detailed overview) in order to discern whether the difference was small enough to denote equivalence. Findings from the TOST analysis revealed students in the two course formats exhibited statistical equivalence on the measure of satisfaction, as denoted by statistically significant upper and lower TOST

equivalence test t-values (TOST Upper = 6.14, $p < .001$; TOST Lower = -4.46, $p < .001$).

An additional open-ended question asked students in both course formats: “Is there anything else you would like the instructor to know about your experience in this course?” Students wrote in varying responses, some of which commented on the nature of the online or in-person courses and noted some differences between the two formats, especially in terms of student satisfaction and learning preferences. Some of these comments shed light on possible best practices for online teaching and learning in public relations. For example, students in the online courses wrote in responses such as, “I really enjoyed the video modules. I love being able to pause them and take notes You can’t do that in an in-person course!” and “I liked the discussion questions and thought they cultivated critical thinking.” Another wrote, “The discussion boards are just tough enough that you cannot fake them, but relatively easy and stress free.” Students in the online courses seemed to appreciate the organization of the course, consistency of weekly due dates, reminders that were sent, and “very good email communication!” Others in the online courses appreciated being able to work at their own pace: “I liked the format of the course a lot because I was able to learn from it, but at my own time and pace.” Another student said: “This was my first online class I have ever taken and I really enjoyed it! I feel like I learned a lot more with the online class because I could go at my own pace, while also completing many other classes and a part-time job.”

Some of the comments from the online courses seemed to stem from students having fairly low expectations for online learning. For instance, one wrote: “I love the way online lectures are set up with the powerpoint [sic] and audio. You made an online class much more interesting than I thought it would be!” Others commented, “I appreciated the effort put into each online video module as well as the appropriate

amount of reminders for remaining online workload,” and “This was one of the better online courses I have taken in the past four years!” Others expressed frustration with previous online course elements: “One thing I dislike about past online courses is that the professor will use a software associated with the textbook that can make the class extremely costly (up to \$200) on top of tuition. I like that this class was blackboard based [sic] and a lot more affordable.”

Students in the in-person classes enjoyed the guest speakers that were brought in to speak about various types of public relations jobs. One student in the in-person section wrote: “I have really enjoyed this course and appreciate the frequent guest speakers. I much prefer being in class.” Others commented on the variety of examples, videos, discussions, and other teaching techniques used in the in-person classes. For example, several students enjoyed the “openness to class discussion,” and others commented on qualities such as enthusiasm, care or concern for students, or said things like, “thank you for bringing so much energy and life to this class.” Another student commented: “Having a class that meets face-to-face is nice because it allows us to have conversation, have guest speakers, and other modes of learning that may not be available via an online platform.”

As with any class or set of student evaluations, there were also criticisms and suggestions about how to improve the course. Students in both course formats commented about the exams being too difficult, and one student wrote, “I think more group work would be helpful.” Another student asked for a few more assignments “for students to boost their grade.” Some of these comments were not specific to either format and could be applied to both course formats. At least two students who took the online course seemed to think the in-person course would have been better. One wrote: “I felt that the supplemental videos were not as extensive as the notes people receive in the traditional classroom setting.”

Another commented: “I think I would have done better in the in-person section of this class because it was hard to break up the online work throughout the week and I found myself doing it all in one day which wasn’t beneficial.” The attendance policy was mentioned as a complaint among students in the in-person course.

The third research question (RQ3) asked: “What is the relationship between course format (online vs. in-person) and course grades?”

Results from an independent samples t-test indicated that there were no statistically significant differences between students in the in-person classes ($M = 87.02$, $SD = 6.80$) and the online classes ($M = 88.08$, $SD = 9.05$) in terms of course grades, $t = -1.75$, $p = .081$. Because of the marginal differences observed, follow-up statistical equivalence tests were conducted using TOST procedures (Lakens, 2017) to determine whether the difference was small enough to denote equivalence. Findings from the TOST analysis revealed students in both course formats exhibited statistical equivalence in terms of their grades, as denoted by statistically significant upper and lower TOST equivalence test t-values (TOST Upper = -9.29 , $p < .001$; TOST Lower = 5.78 , $p < .001$).

The fourth research question and one hypothesis were related to the student characteristics measured by TOOLS. The hypothesis predicted that students in the online format would show higher levels of need for online learning than students in the in-person format. Results from an independent samples t-test indicated that there were statistically significant differences in terms of need for online learning between students in the in-person format ($M = 2.25$, $SD = .92$) and students in the online format ($M = 3.02$, $SD = .80$), $t = -9.38$, $p < .001$. Students in the online course reported higher levels of need for online learning, and the difference between the two groups was significant. Thus, H1 was supported.

This study’s last research question (RQ4) asked: “What is the relationship between course format and the other student characteristics

measured by TOOLS (i.e., academic skills, computer skills, independent learning, and dependent learning)?” According to independent samples t-tests, there were no statistically significant differences between students in the in-person format and the online format in terms of the remaining characteristics measured by TOOLS, including academic skills, computer skills, independent learning, and dependent learning (see Table 2).

Because of the marginal differences observed between students in the two course formats for all four of these subscales, follow-up statistical equivalence tests were conducted using TOST procedures. Similar to the findings related to student satisfaction and course grades, results from the TOST analyses revealed students in the two course formats exhibited statistical equivalence in terms of academic skills, computer skills, independent learning, and dependent learning (see Table 2).

Finally, although it was not the focus of a research question, the study also examined the TOOLS characteristics and student satisfaction related to students’ year in school, and there were some interesting findings. In terms of satisfaction with the course, there was a significant negative correlation between year in school and satisfaction ($r = -.114$, $p < .05$). There was also a significant negative correlation between year in school and independent learning ($r = -.108$, $p < .05$). There was a significant positive correlation between year in school and need for online learning ($r = .157$, $p = .001$). The relationships between year in school and the three remaining variables measured by TOOLS (computer skills, academic skills, and dependent learning) were not significant. Implications related to these findings as well as to the findings specific to the research questions and hypothesis are discussed below.

Discussion

This study may be one of the first to assess online undergraduate education in public relations, specifically looking at student motivations for taking online versus in-person courses and comparing similarities and

Table 2. Means, standard deviations, and results from t-tests and TOST procedures for academic skills, computer skills, independent learning, and dependent learning

| <u>Variable</u> | <u>M</u> | <u>SD</u> | | <u>Welch's t</u> | <u>df</u> | <u>P</u> |
|------------------------------------|----------|-----------|------------|------------------|-----------|----------|
| Academic Skills: In-person | 3.95 | .41 | t-test | 0.895 | 437 | 0.371 |
| Academic Skills: Online | 3.92 | .41 | TOST Upper | 6.19 | 437 | <.001 |
| | | | TOST Lower | -4.40 | 437 | <.001 |
| Computer Skills: In-person | 4.68 | .46 | t-test | -0.974 | 445 | 0.331 |
| Computer Skills: Online | 4.73 | .50 | TOST Upper | 4.34 | 445 | <.001 |
| | | | TOST Lower | -6.28 | 445 | <.001 |
| Independent Learning: In-person | 4.11 | .46 | t-test | -1.698 | 445 | 0.090 |
| Independent Learning: Online | 4.19 | .48 | TOST Upper | 3.61 | 445 | <.001 |
| | | | TOST Lower | -7.01 | 445 | <.001 |
| Dependent Learning: In-person | 3.55 | .77 | t-test | -1.123 | 445 | 0.262 |
| Dependent Learning: Online | 3.64 | .82 | TOST Upper | 4.19 | 445 | <.001 |
| | | | TOST Lower | -6.43 | 445 | <.001 |

Note. Levene's tests were significant ($p < .05$), indicating a violation to the assumption of homogeneity of variance underlying student's t. The Welch test is an approximate test for the equality of means without the homogeneous variance assumption.

differences across the two formats in terms of student satisfaction and grades. This research also seems to be the first to explore the TOOLS characteristics, which have been explored through online courses in other fields, related to students in JMC and specifically public relations education. The findings uncovered by this research may be useful to public relations and JMC faculty, administrators, advisers, students themselves, parents, and anyone else who might be teaching, taking, or debating the merits of online courses.

According to the results of this study, student motivations revolved primarily around scheduling needs, and it is not surprising that many of those in the online courses noted their busy schedules as being the main reason for taking that particular section. Meanwhile, preference for a particular format was the other major factor in decision making, with some students preferring in-person classes and others preferring online options. Several students also noted that they had never taken an online course, and there may be some fear of the unknown, or perhaps some stigma about online courses not being quite as good as in-person courses. This should dissipate as online courses continue to proliferate, but faculty teaching online courses can help assuage such fears by letting students know early on what to expect. Pointing to research like this study, for example, which shows equivalence in terms of grades and satisfaction, might help reduce stigma or change perceptions that may exist about online courses not being as good or as rigorous as in-person courses.

Those who advise students could also help provide glimpses of online courses for students who might have concerns, and university websites could do myriad things to help mitigate this fear. For instance, sample discussion board assignments or online exam questions could be shown to students via one of the school or university's web pages. Universities and staff might also want to post or share the Test of Online Learning Success (TOOLS) online or in-person, which it seems a few

schools are doing already (see, e.g., University of Arkansas, 2019 for a modified version of TOOLS). Meanwhile, continuing to create and deliver quality online courses may help dissolve some of the stigma related to online courses being inferior to in-person courses. As more four-year public and private universities offer online courses, and if these courses are taught by professors who spend substantial time creating content and managing the courses, then students' experiences will change over time, and online courses may become less associated with for-profit institutions or with possible negative perceptions or experiences from a time when online courses weren't as prevalent as they are now.

Student satisfaction and course grades were statistically equivalent between the two course formats in this study. Of course, this may be because the two courses were taught by the same instructor during the same semester at the same university, and there were attempts made to keep the courses similar in terms of content and assessment. This may suggest a key best practice for online teaching, though, and that is that faculty should treat online courses very much the same as they would in-person courses, in terms of time, energy, communication, and so on. In fact, in some ways, online courses require more communication because students do not have that face-to-face time that they get in an in-person course. Online courses can also take extensive time to develop on the front end, but the return on investment in terms of student learning and satisfaction may be worth the effort. Also, that there was equivalence between four courses (not just two) taught over two years with a fairly substantial student population ($N = 452$) shows some reliability, although more research is always preferred and would be helpful moving forward.

The open-ended responses related to particular components of the online course may suggest additional best practices. The online modules, which consisted of PowerPoint slides with recorded voiceover and some videos embedded as well, seemed to be appreciated by students.

The discussion board assignments also seemed to be valued, in terms of helping students learn and interact on a deeper level with course content and with their classmates. These two elements may be helpful for faculty developing online public relations courses in the future, where online examples abound, and the changing nature of the industry can lead to interesting online discussions. Because of the fast-paced nature of news and examples in PR and related industries, videos should only be embedded in PowerPoints if they seem timeless, or unless the instructor plans to update the modules frequently. Otherwise, videos can be added separately or links can be distributed via email or Blackboard to supplement the pre-recorded lecture modules.

Creating course groups via social media or using a class hashtag in conjunction with whatever online learning system universities prefer or require is also especially relevant for students in public relations and related subject areas where social media is a focus. Such tactics are already being used by faculty in public relations for in-person and online classes (Fraustino et al., 2015; Janoske, Byrd, & Madden, 2019), but these tactics may be particularly helpful for encouraging the type of online academic help-seeking that has been found to make students feel more in control of their learning experience (Cheng & Tsai, 2011; Chyr et al., 2017). For example, while some students may be reluctant to go to the official course page if they have a question while studying late at night, they may be more likely to turn to social media to ask questions of their peers. Online courses might encourage this type of interaction among students and between students and instructors more so than in-person courses, but, of course, more research is needed.

Students also seemed to like the asynchronous method of course delivery and discussion board assignments, as other scholars have found (Rosenkrans, 2001). However, as Kauffman (2015) noted, large courses—such as those included in this study—may make it difficult for instructors

to manage and students to participate in highly engaging discussions. While this issue affected student satisfaction in previous studies, it did not seem to happen in this case. However, that may be because of some of the fairly low expectations that seem to exist related to online courses, some of which seem to stem from negative experiences or perhaps false perceptions of online education. Again, findings such as those reported in this research, showing equivalence in student grades and student satisfaction, should help change those perceptions over time.

Many students in the online courses also noted appreciating things like weekly deadlines, the organization and structure of the course, frequent email communication, and reminders about due dates. In terms of structure, the instructor worked closely with someone at the university's Center for Teaching Excellence to determine the best way to set up an online course. While this may not be available at all universities, more institutions are offering such support, and similar information is also available online or in books and journal articles about online education. Strategies vary and there are many ways to be successful, but in this case, the online course was designed very much like the in-person course with weekly readings, modules (like in-person lectures), and discussion board posts (like in-class discussions), and students seemed to respond well to these elements.

Additionally, while some may argue that students should not need to be constantly reminded of due dates, the students in the online courses typically received at least one email per week from the instructor. These emails would outline the coming week's content, attempting to make connections to previous weeks or explaining why these topics were important or being covered next, and often reminded students of upcoming deadlines for discussion board posts. Many students noted that they appreciated these emails, although some said they still had a hard time keeping up with deadlines in the online courses because it is just easy to

forget when you do not have in-person classes as reminders. Students also commented on instructor qualities such as enthusiasm, even in the online course, and such qualities may be made evident via email. One student in an online course wrote: “You can tell she cares about her students through her emails and voice when speaking on lectures.” Indeed, including elements such as your voice or face through video might make online classes seem more personal and similar to in-person courses. This may be particularly important to students in public relations, where relationships are an important focus and may be the reason some students are majoring, minoring, or are simply interested in PR.

It may be that students in PR have different expectations in terms of online teaching; this would be an interesting topic for future research. New technologies such as VoiceThread (2019) make it possible for students to comment and contribute to discussions via voice, video, or text as well. These types of educational innovations mimic some of the creating and commenting that many students are already doing in various online environments, which may make an online course seem more relevant and/or enjoyable to them, perhaps particularly for students in public relations or JMC, although more research is needed on these various strategies, tactics and technologies for teaching online in these areas.

Many students in the in-person courses commented on the guest lectures, but it should be noted that the online courses also included recorded Skype calls with two former students who were working in the public relations industry. These online guest lectures were also appreciated by the students in the online courses, as noted in comments such as the following: “I enjoyed the interview with the previous student who was working for a big pr agency in new york [sic].” Finally, students in both courses noted their appreciation of study guides, which were provided via Blackboard in both course formats. While study guides are nothing new,

it might be worth mentioning that these traditional types of teaching and learning tools are still valued in online environments.

Beyond offering some best practices, this research confirms the reliability of the TOOLS subscales used in previous studies (Kerr et al., 2006). Interestingly, there were no differences between students in the two course formats in terms of academic skills, computer skills, independent learning, and dependent learning. This is somewhat surprising, considering some people's perceptions about online education and some mixed results among previous research about the effectiveness of online education, but perhaps it should not be surprising in this case where direct comparisons were made. For instance, it makes sense that general academic skills would be important in any kind of learning environment, so perhaps it should not be surprising that there was equivalence among the students in both course formats regarding academic skills.

In terms of computer skills, it could be that as "digital natives" enter higher education and take online courses, there is not much variance in computer skills. It may become a moot subscale, assuming students have had some experience with computers, which is typical of most traditional students these days. Of course, computer skills could still be important to assess among non-traditional students who may not have had as much experience with computers for various reasons. Independent learning is probably important for students in any class and does not apply only to online classes, so perhaps it is not surprising that there was equivalence among students in both course formats in terms of independent and dependent learning. It is still interesting, though, considering that this is one of the first studies to do direct comparisons between the two course formats, and considering some presumptions about independent learners perhaps being more inclined to take online courses while dependent learners might be more likely to choose traditional or in-person courses. Again, as online education options proliferate and become

more sophisticated, it may be that these differences do not matter, or perhaps other factors are more important for determining student success.

It is not surprising that the need for online learning was higher among students in the online course. This coupled with student responses regarding motivations for taking online courses, including jobs and other responsibilities, may mean that need and/or preference may be the biggest factors to consider when debating online education. However, as noted earlier in this study, there were at least five students who dropped out of the online course throughout the semester, and it could be that some of those students dropped out because they did not enjoy or could not manage themselves in an online course. Another student tried the online course but switched to the in-person course because the former was too difficult. Time management and self-motivation, which are specifically mentioned in some of the items in the independent learning subscale of TOOLS, may be the most important factors for being successful in online courses. They are also likely influential on students' perceptions of online courses when they are enrolled in those courses.

In the future, if individuals are trying to pare down TOOLS or combine elements of TOOLS with other student characteristics, independent learning and need for online learning may be the most important items to measure. Academic skills are likely important for all students; computer skills may be a moot subscale to measure among today's students, and dependent learning may be redundant if a study is already considering independent learning. Interestingly, independent learning and need for online learning were the only TOOLS characteristics to have statistically significant correlations with year in school. The relationship between year in school and need for online learning was positive, meaning the further along in school students were, the more they desired or required taking courses in online environments. This finding may be due to the fact that students who are closer to graduating (in

their third or fourth year) are probably more likely to also be working or interning while taking courses. The relationship between year in school and independent learning was negative, meaning the further along in school students were, the less likely they were to perceive themselves as being self-motivated and skilled at time management and related skills. The reason for this relationship is not known; however, it may be connected to the factors just mentioned related to the need for online learning. Perhaps students who are earlier on in their college career have fewer obligations (jobs, internships, extracurricular activities), which could be why they also feel more independent in their ability to learn and achieve at their own pace. Future research could further explore the TOOLS characteristics related to other online public relations courses or other types of courses related to JMC. Other characteristics or variables also may be of interest for understanding success in online education in PR and/or JMC.

Conclusions, Limitations, and Future Research

This research helps shed light on what it might take to teach or take an undergraduate online course in public relations. In addition to some of the best practices and student characteristics already discussed, research into online education can help us determine who might benefit most from such opportunities. Online courses might be helpful for students who may be more open online or are less likely to speak up in the classroom, or for students who feel discriminated against in a traditional classroom for any reason. Online education might also be best for nuanced topics, for which time, reflection, and many diverse perspectives would aid in understanding, as some scholars have suggested (Shlossberg & Cunningham, 2016). Asynchronous online discussions allow for this time and reflection, and not meeting face-to-face may make it easier for some students to express diverse perspectives. All of this must be managed by an engaged instructor, though, and more research is needed to validate

some of the findings from this study, which is limited in size, scope, and subject matter.

Indeed, while it seems public relations education—and JMC education in general—might benefit from online course offerings, more research is needed. More courses could be developed on various topics by faculty at diverse institutions, and similar comparison studies could help provide a more complete picture. Additionally, assessing different types of assignments would help us understand more about what works and does not work in online courses related to these fields. This study relied on undergraduate student responses to a survey (in addition to final course grade comparisons), which could be considered limitations of this research. Qualitative methods, including interviews and focus groups, and experimental research could provide additional insights into online education in public relations and other areas of JMC. Longitudinal research to track whether students retain more over time in PR or JMC courses taught online or in person would add another layer of insight to understanding online education in these fields.

Many graduate programs are now offered completely online, and this is another area that is ripe for future research. Because of the focus and reliance on new technologies, digital and social media, and relationships in PR and JMC, which present unique opportunities and challenges when teaching in online environments, more research may be particularly useful in these areas to further hone best practices and offer faculty specific resources and tips for teaching online successfully. Additional research on hybrid courses is of interest as well. Courses that deliver much of the content online yet meet periodically to engage in discussions and/or hear from guests may provide the best of both types of education for students.

While it seems too early to go along with Godin's (2017) suggestions of doing away with all lecture halls, there is no doubt that

higher education has changed and continues to change at a rapid pace. It would be wise to continue to explore the many possibilities provided by technology and innovation to ascertain what might be best for student learning in public relations, in particular, and in higher education as a whole. This study adds to existing research in these areas, but more research is needed and encouraged for the sake of students, faculty, staff, and other decision makers in higher education.

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Appendix A:

The Test of Online Learning Success (TOOLS)

The following items were measured on 5-point scales with the following response options: Strongly Disagree (1), Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree (5).

Note: Items that were reverse scored are indicated below. In addition to looking at the five subscales individually, Kerr et al. (2006) stated that the “total online learning success (OLS) is calculated by summing across all 45 items. Higher scores reflect higher skills. Thus, lower scores on dependent learning denote more dependence (less independence)” (p. 97).

Computer Skills

I am capable of learning new technologies.

I am capable of sending and receiving e-mail.

I am capable of attaching files to an e-mail message.

I am a competent Internet browser.

I am capable of using standard word processing software.

I am capable of managing files on a computer.

I can download new software when necessary.

I can install new software when necessary.

I can copy and paste text using a computer.

I am capable of using discussion boards online.

I am capable of using chat rooms online.

Independent Learning

I am capable of prioritizing my responsibilities.

I am a good time manager.

I am a procrastinator. (reverse scored)

I am capable of making time for my coursework.

I am able to balance many tasks at one time.

I am goal-oriented.

I am self-disciplined when it comes to my studies.

I am self-motivated.

I take responsibility for my learning.

I am capable of critical thinking.

Dependent Learning

I often leave tasks unfinished. (reverse scored)

I require help to understand written instructions. (reverse scored)

I wait until the last minute to work on assignments. (reverse scored)

I have trouble comprehending what I read. (reverse scored)

I need faculty to remind me of assignment due dates. (reverse scored)

I need incentives/rewards to motivate me to complete a task. (reverse scored)

Need for Online Learning

Because of my personal schedule, I need online courses.

It is difficult for me to get to campus to attend classes.

I need online courses because of my geographical distance from universities.

I need online courses because of my work schedule.

I need the freedom of completing coursework at the time and place of my choosing.

Academic Skills

I can learn by working independently.

I am self-directed in my learning.

I am capable of solving problems alone.

I need face-to-face interaction to learn. (reverse scored)

I need faculty feedback on my completed assignments. (reverse scored)

I am a good reader.

I need classroom discussion to learn.

I am capable of asking for help when I have a problem.

I am comfortable learning new skills.

I read carefully.

I am a good writer.

I am capable of following written instructions.

I am capable of conveying my ideas in writing.