

## Basic Communication Course Annual

---

Volume 28

Article 11

---

2016


# A Digital Divide? Assessing Self-Perceived Communication Competency in an Online and Face-to-Face Basic Public Speaking Course

Joshua N. Westwick  
*South Dakota State University*

Karla M. Hunter  
*South Dakota State University*

Laurie L. Haleta  
*South Dakota State University*

Follow this and additional works at: <http://ecommons.udayton.edu/bcca>

 Part of the [Higher Education Commons](#), [Interpersonal and Small Group Communication Commons](#), [Mass Communication Commons](#), [Other Communication Commons](#), and the [Speech and Rhetorical Studies Commons](#)

---

### Recommended Citation

Westwick, Joshua N.; Hunter, Karla M.; and Haleta, Laurie L. (2016) "A Digital Divide? Assessing Self-Perceived Communication Competency in an Online and Face-to-Face Basic Public Speaking Course," *Basic Communication Course Annual*: Vol. 28 , Article 11. Available at: <http://ecommons.udayton.edu/bcca/vol28/iss1/11>

This Article is brought to you for free and open access by the Department of Communication at eCommons. It has been accepted for inclusion in Basic Communication Course Annual by an authorized editor of eCommons. For more information, please contact [frice1@udayton.edu](mailto:frice1@udayton.edu), [mschlangen1@udayton.edu](mailto:mschlangen1@udayton.edu).

*Essays*

**A Digital Divide? Assessing Self-Perceived Communication Competency in an Online and Face-to-Face Basic Public Speaking Course**

---

*Joshua N. Westwick*

*Karla M. Hunter*

*Laurie L. Haleta*

*South Dakota State University*

A 2010 meta-analysis of online learning studies conducted by the U.S. Department of Education (USDOE) compared online and face-to-face (F2F) instruction in a variety of educational disciplines, finding that “on average, students in online learning conditions performed modestly better than those receiving face-to-face instruction” (p. ix). Helms (2014) summarized these findings saying, “Interestingly then, it appears that, if done ‘correctly,’ the online delivery modality can provide the same (or at least not significantly different) learning environment/opportunity as the F2F (traditional) modality” (p. 147). While we would argue that there may be a multitude of options for an instructor to achieve student learning outcomes comparable to F2F delivery rather than a single “correct” way as Helms suggested, we do agree that certain best practices are likely to yield optimal results.

Arguably, public speaking educators have been more reticent to adapt courses to the online environment than instructors in non-performance based disciplines

(Helvie-Mason, 2010; Hunt, 2012; Vanhorn, Pearson, & Child, 2008). For this reason, there is a dearth of research assessing online public speaking courses. Authors such as Johnson-Curiskis (2006) and Linardopoulos (2010) have published case studies relating their experiences and recommendations regarding teaching the course, but the process of fleshing out more generalizable best practices is likely to require a great deal more research.

The purpose of this article is to extend research assessing online delivery of the basic public speaking course. This research contributes to a broader conversation focused on the need for assessment of online courses. Such a conversation can help establish a record of best instructional practices designed to increase student growth and development in this ever-changing course modality.

Vanhorn, Pearson, and Child (2008) called for additional research assessing the effectiveness of the online course, especially with regard to the effectiveness of skill development and student growth. In answer to that call, the current analysis was motivated by the striking and, perhaps, surprising results of a recent case study assessing student outcomes in an online basic public speaking course (Westwick, Hunter, & Haleta, 2015). That initial study's predictions were based on two decades of communication research in the F2F classroom showing that as public speaking anxiety (PSA) decreases, self-perceived communication competence (SPCC) increases (Ellis, 1995; MacIntyre & MacDonald, 1998; Rubin, Rubin, & Jordan, 1997). While that study predicted the online course would yield similar results, findings revealed that, even though the online course

had produced the expected significant reductions of PSA, it failed to produce the predicted inverse relationship between PSA and SPCC. Furthermore, that study found no significant increase in SPCC, as compared with the significant SPCC increases shown in the multiple previous works assessing F2F courses (Ellis, 1995; MacIntyre & MacDonald, 1998; Rubin et al., 1997).

Self-perceived communication competence merits analysis, especially in the basic course, due to its value as a predictor of student success and retention (Richmond, Wrench, & McCroskey, 2013; Rubin et al., 1997). Based on their research, and that of Chesebro et al. (1992), Rosenfeld, Grant, and McCroskey (1995) found two variables they asserted “might be the key communication variables affecting communication success: apprehension about speaking in groups and self-perceived communication competency in speaking to strangers” (p. 79). They stated that students enter the classroom—F2F or online—as strangers to one another. Furthermore, to many students, their instructors are strangers long into the semester—sometimes during the entire term. Given this assertion, it follows that enhancing SPCC, especially with strangers, during one of the earliest college courses in one’s academic career is a worthy goal for consideration in programmatic assessment for departments to maximize student success even beyond the classroom in a single, given semester.

The intriguing finding of the initial assessment, and the value of SPCC to students’ academic success, prompted the current study assessing a direct, head-to-head comparison between SPCC of online and F2F student outcomes from the basic public speaking course. First, we tested whether our online and F2F students

differed in their communication competency upon entering the course. We then used a pretest/posttest design to assess any differences in the change among students' self-perceived communication competency from the beginning to the conclusion of the course in F2F versus online contexts.

To frame the importance of this study, we explored the relevant literature on communication competency, and F2F versus online public speaking instruction and identified four research questions based on that examination. The methods section examines the design for the course under investigation, then delineates the study parameters. We conclude with the results, discussion, and implications of the findings.

This study contributes to a foundation for much-needed research comparing online and F2F public speaking courses. Moreover, this assessment provides a model for other institutions who wish to optimize the outcomes of their online courses. The data provide valuable information which can be used to make course modifications for enhancing student performance in our course, as well as improve the benefits which students may derive from having taken the course. Finally, the findings can contribute to an ongoing discussion of what make for best practices in online public speaking education.

## LITERATURE REVIEW

### *Communication Competence*

The communication discipline has researched instructional development for more than four decades, leading to a wealth of proven strategies for F2F instruc-

tion, including a large number of variables and previously validated measures ready to test in the online format. One of the ways in which we can compare the public speaking course in F2F versus online delivery modalities is through assessment of communication variables such as communication competency. As communication programs are asked to provide evidence of successful student outcomes for their public speaking courses in both formats, measures such as the self-perceived communication competency (SPCC) scale (McCroskey & McCroskey, 1988) can be useful and beneficial to instructors and departments who seek to assess self-perceived communication competency and to test course design interventions for their improvement in the online context.

Scholars have grappled with defining communication competence for decades. The concept of communication competence (CC), “generally refers to the quality of interaction behavior in various contexts” (Canary & Spitzberg, 1987, p. 43). Essentially, this variable aims to explore the effectiveness of an individual’s communication behavior within a specific situation. According to Morreale, Staley, Stavrositu, & Krakowiak (2015), “Competence involves the use of verbal and/or nonverbal behaviors to *effectively* accomplish preferred outcomes in ways perceived as *appropriate* to the context and by the communication” (p. 108). This means that a competent speaker can achieve his or her communication goals through appropriate behaviors that are applicable and effective based on the particular communication context (Morreale et al., 2015). One of the primary competency contexts examined is the classroom and, in particular, the traditional, F2F public speaking classroom (Canary

& MacGregor, 2008; Hinton & Kramer, 1998; MacIntyre & MacDonald, 1998; McCroskey, 1982; Rubin, Graham, & Mignerey, 1990; Rubin et al., 1997). However, there appears to be a limited amount of research which explores communication competence in online courses or that offers a direct comparison of how the online format compares to the F2F format.

Communication competence has been operationalized in several ways, including objective observation, subjective observation, self-report, and receiver-report (McCroskey & McCroskey, 1988). One of the more consistently used measures in research has been the self-report method (Ellis, 1995; Hinton & Kramer, 1998; MacIntyre & MacDonald, 1998; Rubin et al., 1997). McCroskey and McCroskey (1988) posited that self-report measures, such as the SPCC scale used in this study, “are most appropriate when they are directed toward matters of affect and/or perception in circumstances where the respondent has no reason to fear negative consequences from any answer given” (p. 110). As programmatic assessment is concerned not only with skills training but also issues of student growth and development in online courses (Miller, 2010), the self-report measure is appropriate in such cases, since it affords an appropriate opportunity to determine students’ own beliefs about their abilities before and after the course.

The development of students’ SPCC is critical to the public speaking course because students’ perceptions of their own competency can impact their future interactions. Teven, Richmond, McCroskey, and McCroskey (2010) demonstrated the significance of this argument and stated, “Because people make communication

choices based on their self-perceived communication competence (SPCC), such perceptions determine their communication behaviors” (p. 264). Consequently, an individual’s lack of perceived communication competency puts him or her at risk for significant negative impacts on educational and career life choices, income, and even family and personal life (Richmond et al., 2013). Bearing in mind the critical importance of self-perceived communication competence development in our introductory public speaking course, examination of the development of the SPCC variable between the different instructional modalities is paramount to the success and sustainability of the course, as well as its impact for the students we serve—especially when teaching online.

Numerous studies have associated student-perceived competence levels with reported levels of anxiety, suggesting that students with greater anxiety report lower perceptions of their CC (Ellis, 1995; MacIntyre & MacDonald, 1998; Rubin et al., 1997). Studies by Rubin et al. (1990) and Rubin, Welch, and Buerkel (1995) pointed to the fact that communication instruction can make a salient and positive difference for students in relation to anxiety and competence. Ellis (1995) reported a decrease in apprehension and an increase in self-perceived competence for college students over the course of a semester of public speaking instruction. Similarly, Rubin et al. (1997) examined whether public speaking classroom instruction might result in changes in students’ SPCC and communication apprehension (CA). Their results confirmed the inverse relationship between SPCC and CA by using a pretest-posttest design. Students’ CA levels decreased, while their SPCC increased from time



one (at the beginning of the semester) to time two (at semester's end).

### ***Online Instruction for the Public Speaking Communication Course***

Despite the USDOE (2010) findings favoring online instruction and the continued growth and popularity of online learning in general, public speaking as an online course continues to be met with controversy regarding its potential to produce communication-related student learning outcomes and experiences that are of equal caliber to those in the F2F course (Allen, 2006; Helvie-Mason, 2010; Hunt, 2012; Miller, 2010; Vanhorn et al., 2008). Perhaps the opposition from communication educators to the online context for public speaking education can be underscored by a close review of the precise studies included in the USDOE (2010) meta-analysis. This review revealed little to no inclusion of the literature from the communication discipline, possibly due to a dearth in the communication research about F2F versus online modalities of the basic public speaking course, stemming from the general hesitation of many communication educators to teach the public speaking course online.

Since its inception, online public speaking instruction has been a topic of hotly-contested debate, and many public speaking instructors remain cynical of teaching public speaking online (Helvie-Mason, 2010), perhaps due to the unique requirements needed to teach and assess oral communication skills. According to Vanhorn et al., (2008), "Colleagues who do not believe in teaching communication courses online are often at odds with those who do" (p. 34). For example, Arthur W.

Hunt, III (2012) in his article titled, “Why I am Not Going to Teach Public Speaking Online,” argued, “My reason for not wanting to teach public speaking online would be identical to why I do not think sculpting or tennis should be taught online” (p. 163). He sees it as a field requiring primarily hands-on forms of instruction. Conversely, online public speaking course proponents, especially academic administrators, assert that “online instruction enables institutions to offer instruction to larger numbers of individuals for lower costs” (Clark & Jones, 2001, p. 110), while opponents question concerns with the educational outcomes of the digitally-delivered speech course (Allen, 2006; Miller, 2010). Although 90% of academic leaders envision the number of students taking online courses increasing to a majority within five years, over two-thirds of those leaders believe that online instruction will continue to be met with credibility concerns from faculty (Allen & Seaman, 2014), and that is for all courses, not just communication-related courses.

Communication instructors question the ability of the online classroom to provide equivalent skill development and student growth to that afforded the students of a F2F course (Vanhorn et al., 2008). Allen (2006) concluded that online courses, especially those in general education and courses whose goals involve communication skill-building, can actually hinder student success, retention, and degree completion. “This is not to say that on-line and distance education does not have its place; however, it cannot replace the social venue that promotes student success” (Allen, 2006, p. 125).

Despite these concerns, however, “distance delivery of the [introductory public speaking] course continues to expand” (Morreale, Worley, & Hugenberg, 2010, p. 423). The 2006 survey of the basic communication course has shown that 62 of 306 (20.8%) responding institutions offered an online basic course, 35 of which were public speaking courses as opposed to general communication courses (Morreale, Hugenberg, & Worley, 2006). By 2015, over 50% of two-year programs and just over 30% of four-year institutions were offering the basic communication course online (Morreale, Myers, Backlund, & Simonds, 2015). Therefore, the challenge for the communication discipline is to contribute to the ongoing conversation in the academy that compares online to F2F delivery modes.

Previous communication research has served the student population by examining the basic speech course relative to increasing self-perceived competence. Rubin et al. (1997) examined the changes of communication apprehension within a F2F course from the start of the academic semester to the end and found significant decreases in the students’ level of communication apprehension by semesters’ end. Moreover, these authors associated student perceived competence levels with reported levels of anxiety. Westwick et al. (2015) also explored the impact of an online course on public speaking anxiety (PSA) and communication competence finding significant decreases in PSA, but not in the predicted enhancement of student SPCC. Despite the significance of these studies, limited research has examined a direct comparison of self-perceived communication competence between online and F2F instructional formats.

Although some studies have explored SPCC in a traditional classroom (Hodis & Hodis, 2012; Rubin et al., 1997), the online context has received little attention in previous research, especially considering the rapid growth of the online public speaking course. This gap in the research is problematic considering the increased use of online education, including the public speaking course. A scant amount of research has addressed online instruction in the course, illuminating concerns addressed by Miller (2010) on the educational worthiness of online courses which focus primarily on quality student learning and student outcomes.

In a comparison of traditional to online public speaking courses, Clark and Jones (2001) utilized the Personal Report of Communication Apprehension (PRCA) and a measure of self-perceived competency to measure the differences between instructional contexts and found no significant differences in communication apprehension and competence perceptions amongst students upon entering the course. This study suggested that when compared directly, it appears that online and traditional sections yield similar decreases in communication apprehension. While their research did assess self-perceived communication skills development, it did not measure SPCC per se (as defined by McCroskey & McCroskey, 1988). It should also be noted that the online course assessed in that study actually required students to meet F2F five times during the semester; hence, by a more current standard, it would actually have been considered a “blended learning” course.

Clark and Jones’ (2001) study does provide us with a better understanding of the students who might enroll in an online course. These authors stated that their re-

search “provides no evidence that students elect online courses either as a way of avoiding face to face contact or because they feel that they have no need for it” (p. 118). This work was extended by Linardopoulos (2010) who explored student preferences in an online public speaking course and found that the majority of the students elected to take the online course out of convenience (45.5%) and their lack of choice/availability (43.6%). Surprisingly, only 3.6% reported taking the course online to avoid the delivery of speaking in front of an audience. This research suggested that anxiety or apprehension towards public speaking may not be the primary motivation for enrolling in an online public speaking course. Moreover, generally speaking, previous research has shown that the primary factors for enrolling in an online course are flexibility and accessibility (Aslanian & Clinefelter, 2013; Noel-Levitz, 2014).

The review of the literature has led to the following research questions:

- RQ1: Is there a significant difference in levels of self-perceived communication competence between students in face-to-face sections and online sections upon entering the public speaking course?
- RQ2: Is there a significant difference in levels of self-perceived communication competence from the beginning of a public speaking course to the end of the course for students enrolled in face-to-face sections?
- RQ3: Is there a significant difference in levels of self-perceived communication competence from the beginning of a public speaking course to the end

of the course for students enrolled in online sections?

RQ4: Is there a significant difference in levels of self-perceived communication competence between students in face-to-face sections versus online sections upon exiting the public speaking courses?

In light of the significance of SPCC on student success and development (Rubin et al., 1990; Rubin et al., 1995) and the dearth of research comparing online and F2F basic public speaking course delivery, the current study compared the changes in students' SPCC as a result of taking the course in the online versus F2F environment.

## METHODOLOGY

To assess the difference between students' perceptions of their communication competence in F2F public speaking classes and online public speaking classes, this study used quantitative analysis through the use of a pretest/posttest design. Subjects completed the SPCC (McCroskey & McCroskey, 1988) instrument at the beginning of their public speaking course (prior to individual speech delivery) and at the end of the course (after individual speech delivery).

### *Description of the Public Speaking Course*

The course assessed in this study was a multi-section, standardized course (e.g., it employs the same text, identical speaking assignments, course resources, rubrics, and exams across all F2F and online sections) at a mid-sized, Midwestern university. The design of the F2F course was built around three basic, yet essential,

strategies. Each strategy has long proven to reduce PSA and increase SPCC in face-to-face courses: cognitive modification, skills training, and exposure therapy. Assessment of the F2F course at this university has shown it successful in these areas; therefore the online course was designed to model, as closely as possible, this particular F2F course design. Consequently, despite modifications necessary to adapt the course to the online format, the learning objectives, content, and overall teaching philosophy remained the same. A two-week summer training session and weekly training meetings were required for all new course instructors in both formats to “calibrate” instruction and assignment evaluation as a purposeful, evidence-based practice to enhance students’ communication competence.

One cognitive modification strategy involved training all instructors to identify one or two strengths about each student’s speech for every constructive criticism or limitation discussed, and to elicit positive feedback and constructive criticism from the students’ peers as they critique their presentations. Skills training plays a large role in the design of both instructional contexts of this course. The course objectives are designed to help students develop the skills needed for effective public speaking. Thus, the course aims to strengthen both student competence and confidence by incorporating frequent public speaking activities, evaluative feedback, and skill-based training through readings and lectures, regardless of course modality.

Face-to-face sections of our course meet in a lab/lecture format. Each instructor has three sections of lab which meet twice a week for 50 minutes. The lab time is designated for speech outline reviews, speech

delivery, and speech evaluation. Each instructor also has one 50-minute lecture each week. Both learning environments employ weekly lectures using the same PowerPoint© presentations (in the online versions, vocal narration is added by a highly trained and seasoned instructor). In these lectures, the instructor discusses course content, assignment details, and skill development. The lectures are designed to disseminate key course concepts and engage the students through active learning. The online course contains modules (similar to units) which consist of the self-guided PowerPoints, short narrated instructional videos, and discussion board posts. These materials work together in a way designed to mimic the in-class active learning strategies. These modules allow the student to work through the weekly content asynchronously. There are no synchronous course meeting times. However, in the online course design, we took advantage of the technological abilities of the online course delivery system, Desire-to-Learn (D2L), by placing restrictions to guarantee that students must “attend” lectures and avail themselves of readings before they are allowed to upload their outlines for approval and grading as well as final speech videos. These restrictions are also designed to prevent students from working too far ahead. Thus, students in the F2F sections and online sections are moving through the course content at a similar pace.

Students in both formats of the course deliver their speeches to an audience in order to increase SPCC by graduated exposure to the challenging stimulus. In the F2F sections, students deliver their speeches in front of an audience of 23 students and the course instructor. Online students record their speeches to an audience



which must consist of at least three adults who are capable of reasoning and making informed decisions. The audience can consist of friends, family members, teammates, or co-workers. The speeches, which are recorded via webcam, are uploaded to the online course management system. The recorded videos are then viewed by the instructor and other members of the class.

Student feedback of their classmates' speeches is an important component of our course design, enhancing student opportunities for cognitive modification and skills training. Students were asked to discuss the strengths and weaknesses of each presentation to provide an opportunity for personal reflection and skill development. In the F2F sections, students provided oral criticism for each of the speeches that were delivered in class. Similarly, students in the online course engaged in the same activity through course discussion boards where the students posted comments on the strengths and weakness of classmates' presentations.

The amount of time students are engaged in the course is an important consideration. Students in our F2F sections were assigned to spend two hours and thirty minutes in class and an average of two to three hours working on the course outside of class. Similarly, students in the online section were assigned to spend an average of three hours each week engaged in the online modules. An additional two to three hours of work were needed for the course readings and the recording of speeches.

Bearing this in mind, we recognize that despite the training, similarities of course design, and course calibration, we cannot account for individual teacher characteristics that may come into play and potentially re-

duce the generalizability of these results. Additionally, we cannot account for individual student characteristics such as engagement with course materials which may also impact students' perception of their personal growth and development. Nonetheless, considering the importance of basic course assessment and our program's desire to evaluate our students' perceptions of their personal development, assessment of SPCC, despite slight differences in course design between instructional modalities, is justifiable. However, the reported results should be viewed in light of that limitation.

### ***Participants***

Participants in this study ( $N = 691$ ) were undergraduate students ( $n = 258$  males,  $n = 433$  females) at a mid-sized Midwestern University who enrolled in multiple sections of the F2F public speaking course ( $n = 544$ ) and online public speaking course ( $n = 147$ ). The participants ranged in age from 17 to 54 ( $M = 18.82$ ,  $SD = 2.09$ ). Because this course fulfills a university general education requirement, a variety of student majors were represented.

### ***Procedure***

A purposive sample was drawn by choosing a sampling frame of those students enrolled in the basic course. Thus, the sample allowed us to assess the SPCC of the students in our course. The sampling frame for the questionnaire included all students enrolled in F2F and online sections of the course for four semesters - about 2500 students. Upon university approval for research with human subjects, the students were offered

extra credit for completing the questionnaire once during the first ten days of the semester, as well as a second time (a posttest) during the final week of the semester. Six hundred and ninety-one students participated in the pretest and posttest portion of the analysis with a response rate of 28 percent.

### ***Instrumentation***

SPCC was operationalized by using McCroskey and McCroskey's (1988) Self-Perceived Communication Competence Scale. This measure was developed to obtain information concerning how competent people feel in a variety of communication contexts and with different types of receivers (McCroskey & McCroskey, 1988). The basic course at our institution is primarily focused on public speaking but does not ignore the other contexts of communication. The questions on the scale ask respondents to rate their perceived communication competence for 12 different scenarios. Participants are asked to score their competence from zero (completely incompetent) to 100 (fully competent). Each statement represents a communication scenario, such as "Talk in a large meeting of acquaintances." The score for the instrument is obtained using a mathematical formula which provides the total for the SPCC scale. The results indicate whether a person perceives his or her own communication competence as high or low. For the total SPCC score, any number above 86 denotes that the participant has a high perceived level of communication competence while scores below 51 indicate a low perception of one's communication competence. In addition, scores for the public, meeting, group, and dyadic contexts are calculated in the instrument. Further compu-

tation can be completed to measure SPCC in reference to the receivers (strangers, acquaintances, and friends) (McCroskey & McCroskey, 1988). For free access to the complete measure as well as interpretations of the scoring visit [http://www.jamescmcroskey.com/measures/communication\\_competence.htm](http://www.jamescmcroskey.com/measures/communication_competence.htm). The SPCC scale has shown to be reliable (McCroskey & McCroskey, 1988). The reliability for total SPCC in this study for the online sections was  $\alpha = .80$  at the onset of the course and  $\alpha = .90$  post course. The reliability for total SPCC in this study for the F2F sections was  $\alpha = .90$  at the onset of the course and  $\alpha = .76$  post course. Additionally, the data for the SPCC subscales were analyzed and the alpha reliabilities for the public, meeting, group, dyad, acquaintance, and friend contexts were unacceptably low for data analysis. However, the stranger subscale did have appropriate reliability levels. The reliability for stranger SPCC in this study for the online sections was  $\alpha = .86$  at the onset of the course and  $\alpha = .85$  post course. The reliability for stranger SPCC in the study for the F2F sections was  $\alpha = .87$  at the onset of the course and  $\alpha = .88$  post course.

## RESULTS

Paired-samples *t*-tests were used to compare the means between SPCC before the public speaking course and after in both online and F2F sections. Single-sample *t*-tests were used to compare the means of students' SPCC in F2F sections and online sections at the start of the course and at the end of the course. Table One presents the means and standard deviations for the self-perceived communication competency scale.

Table 1  
*Means and Standard Deviations for Self-Perceived  
 Communication Competency*

	Face-to-Face Sections		Online Sections	
	Pretest <i>M (SD)</i>	Posttest <i>M (SD)</i>	Pretest <i>M (SD)</i>	Posttest <i>M (SD)</i>
Stranger	60.50 (23.10)	68.04 (20.45)	58.62 (23.34)	66.51 (20.85)
Total SPCC	74.62 (16.25)	79.90 (14.06)	74.52 (16.10)	76.88 (15.58)

This study's first research question asked, "Is there a significant difference in levels of self-perceived communication competence between students in face-to-face sections and online sections upon entering the public speaking course?" Comparison via single-sample *t*-tests revealed that neither students' overall SPCC ( $t(543) = .149, p > .05$ ) nor students' stranger SPCC ( $t(543) = 1.903, p > .05$ ) differed significantly between students choosing face-to-face sections and those who selected the online context.

Research question two asked, "Is there a significant difference in levels of self-perceived communication competence from the beginning of a public speaking course to the end of the course for students enrolled in face-to-face sections?" Paired samples *t*-tests were calculated to compare the mean pretest score to the mean posttest score for overall SPCC and stranger SPCC in a F2F public speaking course. Significant increases from pretest to posttest were found for total SPCC ( $t(543) = -8.383, p < .001$ ) and for stranger SPCC ( $t(543) = -9.401, p < .001$ ).

Research question three asked, “Is there a significant difference in levels of self-perceived communication competence from the beginning of a public speaking course to the end of the course for students enrolled in online sections?” Paired samples *t*-tests were calculated to compare the mean pretest score to the mean posttest score for overall SPCC and stranger SPCC in an online public speaking course. A significant increase from pretest to posttest was found for SPCC with strangers ( $t(146) = -4.862, p < .01$ ); however, no significant difference was found for overall SPCC ( $t(146) = -1.696, p > .05$ ) from the beginning of the course to the end of the course in the online context.

This study’s fourth research question asked, “Is there a significant difference in levels of self-perceived communication competence between students in face-to-face sections and online sections upon exiting the public speaking course?” The posttest measures of the two contexts were compared directly with one another via single-sample *t*-test, finding that, compared with the online course, the F2F course enhanced students’ overall reported SPCC significantly more than the online course did ( $t(543) = 5.006, p < .001$ ). Posttest results for students in these two course modalities did not, however, differ significantly in their perceived competence in the precise context of communicating with strangers ( $t(543) = 1.903, p > .05$ ).

## DISCUSSION

In response to a call for increased research on the educational quality of online public speaking courses (Vanhorn et al., 2008), this study assessed the differ-

ences of F2F versus online delivery on students' SPCC. Despite the findings from the USDOE (2010) meta-analysis, like Helms (2014), in his comparison of F2F and online courses, we too found differences between course modalities. Discussion of those differences are found below and are subsequently followed by the implications of the results.

The lack of statistical difference in overall pretest SPCC between the course contexts is important because it indicates that significant findings, in response to the remaining research questions, are likely a result of the two different treatments, the F2F versus online delivery. The lack of statistical difference between the SPCC pretests indicates that students electing the online course perceived their competency in a way equivalent to how students electing F2F delivery perceive theirs. This resonates with Clark and Jones' (2001) finding that students' self-reports about the reason they selected one versus the other of the two modes of delivery did not significantly differ at the beginning of the semester in their reasons for taking the course.

Research question two inquired whether the F2F course would produce a significant difference in SPCC from the beginning to the end of the course. A significant difference was found in the F2F modality for overall SPCC, confirming past research findings (Hodis & Hodis, 2012). Additionally, a significant increase was found for the stranger context of SPCC indicating that students' perception of their communication with strangers may be impacted by this course design. This finding's implications go beyond the direct impacts of the course, especially when viewed in light of other research that has found increases in SPCC can help with

student retention (Rubin et al., 1997). Furthermore, this significant increase in stranger SPCC speaks to the assertion by Rosenfeld et al. (1995) that enhancement of stranger SPCC is an important goal of introductory courses.

Regrettably, however, are this study's findings that the online course failed to achieve the similar overall SPCC increases. Research question three queried whether the online course would produce a significant difference in overall SPCC from the beginning to the end of the course, and no significant change was found in students' total SPCC. This is unfortunate as previous communication research has identified the importance of growth in SPCC as a contributing factor toward educational and career life choices, income, family, and personal life (Richmond et al., 2013). On a more positive note, the online course did, however, produce significant changes in the specific context of SPCC with strangers. This finding indicated that some elements of the course design are contributing to increases in perceived competence, especially with regard to elements likely to have been exercised through the components of the online course design (e.g., the online course required students to watch some of their classmates' speeches and to interact about them on a regular basis in online discussions. They were building relationships in online meetings with classmates and their instructors who had, at least at first, been strangers.). This finding is especially significant in light of the positive impact on student success that occurs when students develop their SPCC with strangers (Rosenfeld et al., 1995).

This study's final research question investigated whether a significant difference in levels of SPCC would



exist in a direct comparison of posttest outcomes between students in F2F sections versus online sections upon exiting the public speaking course. This study's findings echo those of Helms' (2014) comparison of online and F2F psychology course outcomes which stated, "Apparently, the bottom line is that the students choosing the online modality and their resulting performance are different from the students choosing the F2F modality and their resulting performance" (p. 9). Regrettably, when compared directly with the F2F course however, our online course failed to enhance students' overall reported SPCC (with the exception of with strangers) significantly more, suggesting one or both of two possible explanations. One, our students enter the course modalities with differences we have yet to measure, and/or two, given the course design at the institution tested, the F2F course is more successful in increasing students' perceived communication competency when compared to the online sections. Based on these results there are several implications for online instructors and basic course administrators.

## IMPLICATIONS

Although the online public speaking course tested in this study utilizes the same essential course design as its F2F counterpart and the findings indicated equivalent course entry SPCC between the two delivery modes, the fact that the SPCC outcomes of the two are measurably different bears further examination. Three potential explanations for these differences include different audience requirements of the two environments, the inability of online exercises to completely recreate the F2F

speaking atmosphere, and the challenges of building a sense of community in an online course. These implications warrant additional research and should be taken into consideration when designing online public speaking courses that seek to develop students' self-perceived communication competence.

Exposure to speaking in front of an audience is one of the primary methods through which students can build competence, but in the F2F and online sections examined in this study, the definition of what counts as an "audience" differs appreciably. In the F2F course, each speech is delivered live during class time in front of the instructor and a cohort of 20-24 fellow students, generally all freshmen who are "in the same boat," so to speak. In the online course, however, the requirements for what counts as an audience member are drastically different. In the course examined, the online live audience can consist of adult friends or family members, and carries a minimum of three people. It is reasonable to assume that a portion of the difference between SPCC outcomes in the two delivery modes is as a result of these vastly different audience requirements. Building self-perceived competence is likely to require not only skill-based training, but also a sense that one has been "polished" by the challenging experience of speaking in front of a larger audience who consists of one's well-trained peers. This finding speaks to the concept of exposure therapy, an element of systematic desensitization, which occurs readily in the F2F course context. Systematic desensitization through exposure therapy is designed to treat psychological arousal through repeated experience of a negatively arousing stimulus (Bodie, 2010). Regular exposure to speaking in front of

an audience larger than three members may have yielded SPCC increases more aligned with those achieved by students in the F2F sections of the course.

In addition to different audience requirements, the course exercises in the online sections examined in this study were unable to completely recreate the speaking atmosphere that F2F students experience. For example, although both course delivery modes tested do involve a component of peer critique, the peer involvement in the speaking experience, since it exists in a virtual realm, is notably different from the F2F dynamic. Face-to-face speech courses carry more than just the pressure of the potential for real-time peer judgment. They also carry the likelihood of instantaneous nonverbal support. A speaker builds not only confidence, but a sense of competence when audience members maintain eye contact with the speaker, laugh at the right spots, and smile or nod occasionally. In such cases, it is likely that an interaction occurs wherein the skills training embedded within the course and the more “real world” style of the exposure to the arousing stimulus (speaking) combine to elicit cognitive modification. In other words, is it plausible that a given student speaking in front of a larger, “live” audience practically cannot help but formulate new, more empowered thoughts about his or her perceived competence? Conversely, while perhaps a given student speaking in front of a smaller audience is an equally adept or even more adept speaker, the knowledge and experience of the speaking environment (the exposure) as somewhat more contrived and more student-controlled may actually decrease student feelings of empowerment, thus if cognitive modification does occur, it may not always be positive. For this rea-

son, future research should compare F2F versus online students' levels of self-efficacy (SE).

A final explanation for the differing outcomes of the two delivery modes resonates with a common critique of the online public speaking course: concern over a lack of development of class "community"--a supportive class dynamic. Jenkins (2011) discussed this concern, stating:

It seems to me that there are distinct advantages to being in the same room with the professor and other students; that there are dynamics and experiences associated with the brick-and-mortar classroom that can't quite be duplicated via the Internet. (par. 11)

Throughout the semester the F2F context generally lends itself more readily to helping students bond as a class than the online environment does. In a F2F course this dynamic grows, often imperceptibly, every time the class members engage in class discussions, contribute responses to instructor questions, and watch their instructor speak. In discussing the distinctions between community building in online and F2F learning environments, Helvie-Mason (2010) reported on her experience in transferring a Southern University at New Orleans F2F course to online in the aftermath of Hurricane Katrina. "Everyone's reaction, including my own was, 'public speaking *online*!'" [italics in original] (p. 94). Helvie-Mason's (2010) entries from her teaching journal kept throughout the term stated:

I love teaching and hope to find a way to connect and bond with my online students as genuinely and successfully as I have been doing with my on-land students so far. This will make me feel more like Speech can truly translate to an online environment. Without

such a bond, however, I worry that my online students aren't getting all they can from the course. (p. 94)

Altman and Taylor's (1973) social penetration theory (SPT) provides a lens through which to view concerns regarding the need for stronger development of community in online courses. The theory's "peeling the onion" metaphor is commonly used to discuss how communication grows in both breadth and depth as a relationship progresses. Gamble and Gamble (2014) explained, "As a relationship increases in strength, we become more willing to discuss particular subjects and more comfortable revealing more about ourselves. This increases our relational bonds" (p. 366). Applied to the instructional communication context, this theory can provide an underpinning for studies maximizing a course's ability to move students deeper into the "onion layers" of relational development. A class-cohort relationship may not involve the depth of communication that a more intimate friend, family, or romantic relationship might. Scholarly concerns about the lack of community among online students, in conjunction with the findings of this study, provide impetus for the development and testing of course exercises specifically crafted and assessed to develop deep course dynamics in the online courses.

A positive instructional method of many online courses that has been found to help strengthen group dynamics is the use of online group discussions. Through interviews with award-winning online instructors, Bailey and Card (2009) recommended the use of online discussion boards to enhance student engagement with the class and one another. One of their participants stated, "I think the entire online course should be focused around discussion. The output that they pro-

duce in terms of thought, in terms of their written assignments is just so much better than I ever got in on-campus classes, so much better” (p. 154). However, it must be noted that this result was reported by award-winning instructors whose best practices for crafting online discussion questions, procedures, and rubrics led to that positive result. Online discussions can vary in their content and impacts. Additionally, online group discussions may not be enough to increase students’ SPCC in the online context, thus, additional research exploring that relationship and SPCC’s relationship to other exemplary practices is warranted.

An implication of this analysis is that working toward the most direct parallel possible between the course modalities may not afford a fair form of programmatic assessment. Despite attempts to provide a similar learning experience for students in both course contexts, it is not possible and it may be detrimental to offer a nearly-identical learning experience. Perhaps communication educators may be better suited to design the online public speaking course differently to meet the specific needs of the students who elect to take the course in that modality, having as our goal a more effective course as opposed to one that is most similar to F2F sections. As mentioned previously, our department’s online course design could, for instance, revolve entirely around small, collaborative working groups that have proven highly effective in our interpersonal communication course. Currently, the basic speech course uses small groups as a means of collecting and assessing student work, and requiring the students to interact with one another. Discussion groups are larger than speech groups, however, and they are not comprised of the

same groupings of people as those in the discussion groups. Therefore, the students do not have the opportunity to bond fully with a singular, small group of their colleagues through the course of the semester. Another possible alteration to make the course more effective would be to require each member of a given group to respond briefly to every speech in his or her small group and to craft additional discussion posts to contribute to a more conversational, supportive environment in the class. Additional research exploring this line of inquiry will be beneficial to basic course instructors and administrators.

## **LIMITATIONS AND FUTURE DIRECTIONS**

The primary limitation of this analysis stems from concerns about the varying conceptual and operational definitions and connotations of the word “competence,” itself. The SPCC measure was not designed to assess actual competence as assignments and objective observations can (e.g., actual speech performances or exam grades). As the SPCC’s creators, McCroskey and McCroskey (1998) stated, “self-reports have little validity as indicants of competent communicative performances but may serve as useful measures of self-perceptions which may function as precursors of communicative choices” (p. 108).

Additional limitations of this study, not addressed in the review of literature or the methodology, include the absence of a control group and the self-reporting nature of the SPCC data. The absence of a control group limits the study in that it cannot be ascertained that the treatment (the public speaking course) is the only factor

impacting the students perceived communication competence. Since nearly all of the participants were first-year college students, the research may also be measuring the change in confidence that is likely to accompany the college experience, rather than the effects of the course, alone. Future studies may be able to test all incoming first-year students for SPCC before they begin any coursework, once they have been enrolled in classes for a few weeks, and finally at the end of the semester. At the institution where this research took place, students are advised to take either the basic speech course or a freshman composition course their first semester in college. By testing all incoming freshman in the way just outlined, students who take the course their first semester in college can be compared directly with those who have not yet taken the course. To control for these issues, future research should explore student characteristics at a student-by-student level that controls for issues such as attendance, participation, and assignment completion. Student level data adds many possibilities for a more rich analysis, including the option to account for variance due to attendance, and the effectiveness of the course for different demographic groups (male versus female, ESL versus non-ESL, etc.). This additional data would extend the current findings through more robust data analysis and help to control the variance caused by other factors.

An additional question arises, based on the findings in this study. Why is there a significant increase in SPCC for F2F versus the online format? Research indicates that the social nature and community aspect of the F2F classroom enhances student engagement and feedback. Some of that element is lost, perhaps, in an



online delivery format. As a result additional questions emerge: What can and/or should be done in online delivery of public speaking course to replicate the culture, support, and feedback that may increase students' SPCC? How do we design our course optimally to meet the needs of our institution and our students? Is there a way to ensure online delivery of the basic public speaking course is utilizing best practices per Helms' (2014) suggestion so that the online and F2F course outcomes equally maximize student success?

## CONCLUSION

Convenience, flexibility, and self-paced work have led to a drastic increase in student preference for online courses (Singh, Rylander, & Mims, 2012), but scholars like Allen (2006) and Jenkins (2011) have argued that instructors and administrators must look beyond financial concerns and student preferences to make appropriate judgments, not about whether online education should be offered, but about when, for what courses, and to whom. Allen (2006) argued that "the rush to provide advances in technology, specifically on-line and distance learning, is in sharp contrast to institutional goals of retaining and graduating students" (p. 122). Similarly, a 2011 *Chronicle of Higher Education* column asked, "Isn't it time that we had an honest national conversation about online learning?" (Jenkins, par. 4). Jenkins further asked, "With countless studies showing success rates in online courses of only 50 per cent [sic]—as opposed to 70-75 percent for comparable face-to-face classes—isn't it time we asked ourselves some serious questions?" (par. 4). He stated that these questions include

whether or not every course should be taught online and whether or not every student who desires to take online courses should be authorized to do so.

The current study's findings suggest that our online course development heighten focus on competency based interventions. "Innovative pedagogical tools that are reforming educational practice continue to provide answers to questions created in the online course. Additional research into these tools may provide solutions to some of these challenges" (Vanhorn et al., 2008, p. 35).

Despite continued concerns over the online public speaking course, online education has established a firm footing in American higher education, and it is here to stay (Allen & Seaman, 2014). Even online public speaking opponents may find opportunities through the challenges the course presents. A plethora of research topics regarding best practices for teaching online public speaking await the intrepid scholar/teacher. Based on the results of this study, and the lack of other research comparing online and F2F public speaking courses, we place a call for action and additional research to explore these issues.

## REFERENCES

- Allen, I.E., & Seaman, J. (2014). Grade change: Tracking online education in the United States, 2013. Retrieved February 19, 2013, from <http://www.onlinelearningsurvey.com/reports/gradechange.pdf>
- Allen, T.H. (2006). Is the rush to provide on-line instruction setting our students up for failure? *Communication Education*, 55, 122-126. doi: 10.1080/03634520500343418

- Altman, I., & Taylor, D. (1973). *Social penetration: The development of interpersonal relationships*. New York: Holt, Rinehart & Winston.
- Aslanian, C.B., & Clinefelter, D.L. (2013). *Online college students 2013: Comprehensive data on demands and preferences*. Louisville, KY: The Learning House, Inc.
- Bailey, C.J., & Card, K.A. (2009). Effective pedagogical practices for online teaching: Perception of experienced instructors. *Internet and Higher Education*, 12, 152-155.
- Bodie, G.D. (2010). A racing heart, rattling knees, and ruminative thoughts: Defining, explaining, and treating public speaking anxiety. *Communication Education*, 59, 70–105. doi:10.1080/03634520903443849
- Canary, D.J., & MacGregor, I.M. (2008). Differences that make a difference in assessing student communication competence. *Communication Education*, 57, 41-63. doi:10.1080/03634520701635133
- Canary, D.J., & Spitzberg, B.H. (1987). Appropriateness and effectiveness perceptions of conflict strategies. *Human Communication Research*, 14, 93-118. doi:10.1111/j.1468-2958.1987.tb00123.x
- Chesebro, J.W., McCroskey, J.C., Atwater, D.F., Bahrenfuss, R.M., Cawelti, G., Gaudino, J.L., & Hodges, H. (1992). Communication apprehension and self-perceived communication competence of at-risk students. *Communication Education*, 41, 345-360. doi:10.1080/03634529209378897

- Clark, R.A., & Jones, D. (2001). A comparison of traditional and online formats in a public speaking course. *Communication Education, 50*, 109-124. doi:10.1080/03634520109379238
- Ellis, K. (1995). Apprehension, self-perceived competency, and teacher immediacy in the laboratory-supported public speaking course: Trends and relationships. *Communication Education, 44*, 64-78. doi:10.1080/03634529509378998
- Gamble, T.K., & Gamble, M.W. (2014). *Interpersonal communication: Building connections together*. Thousand Oaks, CA: Sage.
- Helms, J.L. (2014). Comparing student performance in online and face-to-face delivery modalities. *Journal of Asynchronous Learning Networks, 18*(1). Retrieved from [http://onlinelearningconsortium.org/sites/default/files/10-jaln18-1comparing\\_student\\_0.pdf](http://onlinelearningconsortium.org/sites/default/files/10-jaln18-1comparing_student_0.pdf)
- Helvie-Mason, L. (2010). Instructional identity: The journey to the online public speaking course. *Louisiana Communication Journal, 12*, 94-107.
- Hinton, J.S., & Kramer, M.W. (1998). The impact of self-directed videotape feedback on students' self-reported levels of communication competence and apprehension. *Communication Education, 47*, 151-161. doi:10.1080/03634529809379119
- Hodis, G.M., & Hodis, F.A. (2012). Trends in communicative self-efficacy: A comparative analysis. *Basic Communication Course Annual, 24*, 40-80.

- Hunt, A.W., III. (2012). Why I am not going to teach public speaking online. *Explorations in Media Ecology*, 2, 163-176. doi:10.1386/eme.11.2.163\_1
- Hunter, K., Westwick, J., & Haleta, L. (2014). Assessing success: A model for assessing the impact of a basic speech on reducing public speaking anxiety. *Communication Education*, 63, 124-135. doi:10.1080/03634523.2013.875213
- Jenkins, R. (2011). Why are so many students still failing online? *The Chronicle of Higher Education*. Retrieved March 2, 2014 from <http://chronicle.com/article/Why-Are-So-Many-Students-Still/127584/>
- Johnson-Curiskis, N. (2006). Online course planning. *MERLOT Journal of Online Learning and Teaching*, 2(1), 42-48. Retrieved from [http://jolt.merlot.org/Vol2\\_No1.htm](http://jolt.merlot.org/Vol2_No1.htm)
- Linardopoulos, N. (2010). Teaching and learning public speaking online. *MERLOT Journal of Online Learning and Teaching*, 6(1), 198-209. Retrieved from [http://jolt.merlot.org/vol6no1/linardopoulos\\_0310.htm](http://jolt.merlot.org/vol6no1/linardopoulos_0310.htm)
- MacIntyre, P.D., & MacDonald, R. (1998). Public speaking anxiety: Perceived competence and audience congeniality. *Communication Education*, 47, 359-365. doi:10.1080/03634529809379142
- McCroskey, J.C. (1982). Communication competence and performance: A research and pedagogical perspective. *Communication Education*, 31, 1-7. doi:10.1080/03634528209384654

- McCroskey, J.C. (2007). *Communication research measures*. Retrieved from [http://www.jamescmccroskey.com/measures/communication\\_competence.htm](http://www.jamescmccroskey.com/measures/communication_competence.htm)
- McCroskey, J.C., & McCroskey, L.L. (1988). Self-report as an approach to measuring communication competence. *Communication Research Reports*, 5, 108-113. doi:10.1080/08824098809359810
- Miller, J.J. (2010). Student evaluations for the online public speaking course. *Basic Communication Course Annual*, 22, 153-171.
- Morreale, S., Hugenberg, L., & Worley, D. (2006). The basic communication course at U.S. colleges and universities in the 21<sup>st</sup> century: Study VII. *Communication Education*, 55, 415-437. doi:10.1080/03634520600879162
- Morreale, S.P., Myers, S.A., Backlund, P.M., & Simonds, C.J. (2015). Study IX of the basic communication course at two- and four-year U.S. colleges and universities: A re-examination of our discipline's "front porch," *Communication Education*. Advance online publication. doi:10.1080/03634523.2015.1073339
- Morreale, S., Staley, C., Stavrositu, C., & Krakowiak, M. (2015). First-year college students' attitudes toward communication technologies and their perceptions of communication competence in the 21<sup>st</sup> century. *Communication Education*, 64, 107-131. doi:10.1080/03634523.2014.978799
- Morreale, S.P., Worley, D.W., & Hugenberg, H. (2010). The basic communication course at two- and four-

- year U.S. colleges and universities: Study VIII—The 40th anniversary. *Communication Education*, 59, 405-430. doi:10.1080/03634521003637124
- Noel-Levitz (2014). 2014-15 national online learners priorities report. Coralville, IA: Noel-Levitz. Retrieved from [www.noellevitz.com/Benchmark](http://www.noellevitz.com/Benchmark).
- Richmond, V.P., Wrench, J.S., & McCroskey, J.C. (2013). *Communication apprehension, avoidance, and effectiveness* (6<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson.
- Rosenfeld, L.B., Grant, C.H. III, & McCroskey, J.C. (1995). Communication apprehension and self-perceived communication competence of academically gifted students. *Communication Education*, 44, 79-86. doi:10.1080/03634529509378999
- Rubin, R.B., Graham, E.E., & Mignerey, J.T. (1990). A longitudinal study of college students' communication competence. *Communication Education*, 39, 1-14. doi:10.1080/03634529009378783
- Rubin, R.B., Rubin, A.M., & Jordan, F.F. (1997). Effects of instruction on communication apprehension and communication competence. *Communication Education*, 46, 104-114. doi:10.1080/03634529709379080
- Rubin, R.B., Welch, S.A., & Buerkel, R. (1995). Performance-based assessment of high school speech instruction. *Communication Education*, 44, 30-39. doi:10.1080/03634529509378995
- Singh, S., Rylander, D.H., & Mims, T.C. (2012). Efficiency of online vs. offline learning: A comparison of inputs and outcomes. *International Journal of Business, Humanities & Technology*, 2, 93-98.

- Teven, J.J., Richmond, V.P., McCroskey, J.C., & McCroskey, L.L. (2010). Updating relationships between communication traits and communication petence. *Communication Research Reports*, 27, 263-270. doi:10.1080/08824096.2010.496331
- Westwick, J.N., Hunter, K.M., & Haleta, L.L. (2015). Shaking in their digital boots: Anxiety and competence in the online basic public speaking course. *Basic Communication Course Annual*, 27, 43-77.
- U.S. Department of Education; Office of Planning, Evaluation, and Policy Development; Policy and Program Studies Services. (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies* (Contract No. CO-0040 Task 0006 with SRI International). Retrieved from <http://www2.ed.gov/rschstat/eval/tech/evidence-basedpractices/finalreport.pdf>
- Vanhorn, S., Pearson, J.C., & Child, J.T. (2008). The online communication course: The challenges. *Qualitative Research Reports in Communication*, 9, 29-36. doi:10.1080/17459430802400332