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Shaking in Their Digital Boots: Anxiety and Competence in the Online 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

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Although once unimaginable, online courses have entered into higher education and the popularity and frequency of this type of course continues to rise (Hugenberg & Hugenberg, 2007). In 2013, an all-time high of 7.1 million college students (33.5%) took at least one online course, up 6.1% from 2012 (Allen & Seaman, 2014). This increase in online course offerings is also visible within the introductory public speaking course. The 2006 survey of the basic communication course specifically asked about the number of institutions that offered the course online and showed that 62 of 306 (20.8%) responding institutions offered an online basic course (Morreale, Hugenberg, & Worley, 2006). Moreover, Allen and Seaman (2008) found that 50 percent of university faculty accept the value and legitimacy of online courses.

In the face of this educational transformation, however, some communication faculty have expressed concern with this instructional context. Helvie-Mason (2010) suggested that many public speaking instructors continue to be cynical of teaching public speaking online. Miller (2010) advocated that “What appears to
be the critics’ collective driving force are concerns over the educational quality of an online course” (p. 153). Concerns regarding educational quality in the online context, especially within the basic communication course, have prompted a call for additional research to test the effectiveness of achieving student learning outcomes in the online course (Vanhorn, Pearson, & Child, 2008). In response to that call, this study assessed two key-components of an online public speaking course: speaker anxiety and self-perceived communication competence.

One of the primary goals of most basic public speaking communication courses is the reduction of speaking anxiety (Kinnick, Holler, & Bell, 2011). Communication instructors’ resistance to teaching public speaking online exists based on concerns regarding the inability of the online classroom to provide skill development and student growth (i.e., reduce apprehension and increase competency) (Vanhorn et al., 2008). Based on the importance of these student learning outcomes in the basic public speaking course, this study extended previous research (Ellis, 1995; Hunter, Westwick, & Haleta, 2014; and Rubin, Rubin, & Jordan, 1997) by examining pre and posttest levels of public speaking anxiety (PSA) and self-perceived communication competence (SPCC) for students enrolled in online sections of the basic public speaking course. The purpose of this study was three-fold. First, we tested the effectiveness of an online basic public speaking course that treated speaking anxiety. Second, we tested whether the course was effective in increasing those students’ self-perceived communication competence. Third, we explored the changes in PSA and SPCC based on gender.
To frame the importance of this study, we explored the relevant literature on speaking anxiety, communication competency, and online public speaking instruction. Next, we proposed two hypotheses based on the relevant literature. The methods section examines the course design and treatment plan for the course under investigation, then delineates the study design. We conclude with the results and discussion of the significant findings.

**Public Speaking Anxiety**

PSA has been defined as “a situation-specific social anxiety that arises from the real or anticipated enactment of an oral presentation” (Bodie, 2010, p. 72). The speaking anxiety construct extends from research on communication apprehension (CA). Research indicates that PSA is the most common component of CA (McCourt, 2007; Richmond, Wrench, & McCroskey, 2013), affecting a large portion of the population to a degree that impairs their ability and willingness to speak publicly (McCroskey, 1984; Richmond et al., 2013). These findings further demonstrate that such fears may hinder career aspirations, personal relationships, and self-image.

Practically all speakers experience PSA as a temporary psychological state that passes after the speaking event has concluded, but others have trait-like PSA that extends across many public speaking situations. For these individuals, PSA may manifest itself when no specific speaking event is planned. Therefore, state anxiety is a more “transitory state or condition of the organism which fluctuates over time,” while trait anxiety is more enduring—a “unitary, relatively permanent personality
characteristic” (Spielberger, 1966, p. 13). Identifying these differences allows basic course directors and instructors an opportunity to design course curricula based around treatments that will enact genuine change within the trait of individual levels of PSA. We believe that students in the online course will decrease their trait-like speaking anxiety over the course of the semester.

Historically, research has found small but significant PSA differences based upon self-identified gender, with females having consistently reported higher PSA (Friedrich, 1970; McCroskey, Simpson, & Richmond, 1982), and higher CA in general (Behnke & Sawyer, 2000; McCroskey et al., 1982). A meta-analysis of communication apprehension studies confirmed these findings (Lustig & Andersen, 1990). McCroskey, Simpson, and Richmond (1982) concluded that “Although the variance attributable to the biological sex variable, 2 to 4%, is not large, it may represent somewhat of a barrier to advancement of women within our society generally” (p. 133). Therefore, ensuring that course design employs effective PSA reduction for all students is necessary, especially given the aforementioned findings that high PSA can hinder college and career aspirations and overall life satisfaction (Emanuel, 2005; McCroskey, 1984; Nutt & Ballenger, 2003). Hunter et al. (2014) found that both male and female students experienced significant reduction of PSA as a result of the basic public speaking course in its traditional, face-to-face format, but that the female students began the course with significantly higher PSA than the males. However, the significance of PSA differences in gender was erased upon students’ completion of the face-to-face course. Therefore, it is im-
important to assess the changes in PSA by gender in the online basic course in order to determine whether this same PSA reduction is possible in an online format.

Despite negative characteristics of PSA, one positive aspect of this condition is that it can be treated. Numerous methods of treating speaking anxiety exist. Three of the most common ways to remedy speaking anxiety symptoms and behaviors are exposure therapy, cognitive modification, and skills training (Bodie, 2010). Combining these methods can increase their effectiveness and boost long-term results (Bedore, 1994). The online basic course used in this study blended elements of these three treatments—a different treatment for each “proximal cause” of PSA (Bodie, 2010, p. 86). Exposure therapy is designed to treat psychological arousal, cognitive modification addresses negative thought patterns, and skills training seeks to increase public speaking ability. This blend is “more effective than any single method” (Pribyl, Keaton, & Sakamoto, 2001, p.149) at reducing PSA, maximizing effects and long-term results of treatment (Bedore, 1994). Because a major tenet of the anxiety treatment focuses on skill-building, this study also looked at the concept of communication competence (CC).

**Communication Competence**

Communication competence (CC) “generally refers to the quality of interaction behavior in various contexts” (Canary & Spitzberg, 1987, p. 93). Essentially it aims to explore the effectiveness of an individual’s communication behavior within a specific context. Communication competence has generated a good deal of research and
debate, including differing opinions about how it should be defined (McCroskey, 1980; McCroskey, 1982; & Spitzberg, 1983). In essence, the study of CC examines the effectiveness and appropriateness of communication in a given context. One of the primary contexts examined is the classroom and, in particular, the traditional, face-to-face public speaking classroom (Canary & MacGregor, 2008; Hinton & Kramer, 1998; MacIntyre & MacDonald, 1998; McCroskey, 1982; Rubin, Graham & Mignerey, 1990; Rubin et al., 1997).

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, Graham, & Mignerey (1990) & Rubin, Welch, & Buerkel (1995) pointed to the fact that communication instruction can make a salient and positive difference for students, relative to anxiety and competence. Ellis (1995) reported a decrease in apprehension and an increase in competence for college students over the course of a semester of public speaking instruction. Similarly, Rubin, Rubin, & Jordan (1997) examined whether public speaking classroom instruction might result in changes in students’ perceived CC and CA. Their results confirmed the inverse relationship between CC and CA, using a pretest-posttest design. Students’ CA levels decreased, while their CC increased from time one (at the beginning of the semester) to time two (at semester’s end) (Rubin et al., 1997).

As previously noted, females, historically, have consistently reported higher PSA as compared to males (Friedrich, 1970; McCroskey et al., 1982). However, a
limited amount of research has explored gender differences related to SPCC. Considering the association between competence levels and anxiety (Ellis, 1995, MacIntyre & McDonald, 1998; Rubin et al., 1997), further research exploring the impact of gender on SPCC is merited. Donovan & MacIntyre (2004) explored age and sex differences in willingness to communicate, communication apprehension, and self-perceived competence. Their research identified that female university students have lower self-perceived competence compared to males. These authors suggested “communication educators may need to be especially concerned with these variables among their female university students” (p. 426). However, this was the only study which identified gender as a variable related to SPCC. Moreover, the previous research did not explore the change from the beginning of the course to the end. Thus, this current study examined the impact of gender on SPCC in the online basic public speaking course.

**Online Instruction for the Basic Speech Communication Course**

Much of the above-cited research was based on traditional, face-to-face instruction. But, what about online instruction in the basic public speaking course? Previous communication research has served the apprehensive population by examining the basic speech course relative to reducing anxiety and increasing competence. Rubin et al. (1997) examined the changes of CA within a face-to-face course from the start of the academic semester to the end and found significant decreases in the students’ level of CA by semesters’ end. Moreover, these
authors associated student perceived competence levels with reported levels of anxiety. Extending this line of research, with a more specific emphasis on public speaking anxiety, Hunter et al. (2014) found that in a face-to-face basic speech course, students’ PSA was significantly lower at the end of the semester than the beginning. These significant reductions in apprehension and anxiety were found in the traditional, face-to-face classroom. However, limited research has examined the effects of the online basic speech course and its impact on students’ PSA; let alone course impacts on students’ SPCC. Considering the success of reducing CA and PSA in the face-to-face basic speech course, this study asserted that similar results can be found within an online basic speech communication course. Thus, the results of this study could offer further validation for the merits of this online instructional methodology.

Helping students reduce levels of speaking anxiety and increase their self-perception of communication competence in a public forum is a priority for communication educators, especially those with an interest in the basic speech communication course. Although studies have explored these constructs in a traditional classroom (Hunter et al., 2014; Rubin et al., 1997), the online context has received little attention in previous research. This oversight is problematic considering the increased use of online education, including the basic speech communication course.

Considering the rapid growth of the online basic public speaking course, a scant amount of research has addressed online instruction in the basic speech course. While 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). Previous research on the online basic communication course has illuminated concerns with the educational worth of online courses, primarily focusing on quality student learning and student outcomes (Miller, 2010).

In a comparison of traditional to online public speaking courses, Clark and Jones (2001) utilized the Personal Report of Communication Apprehension (PRCA) to measure the differences between instructional contexts and found no significant differences in CA amongst students. Furthermore, Clark and Jones (2001) found no significant difference in self-assessment of public speaking skills. However, the “online format” tested and compared with the face-to-face course in that study actually required five in-person, in-class meetings during a given semester. Therefore, although the format examined would have been considered an online class in 2001 at the time of the study, it actually constitutes what has come to be known as a “blended learning” format, an entirely separate learning context that merges face-to-face and online formats. Graham (2004) defines blended learning as “combining online and face-to-face instruction” (p. 3). The findings by Clark & Jones (2001) were significant in that they “[provide] 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 research also suggested that when compared, it appears that online (hybrid) and traditional sections yield similar changes in CA. However, the research did not explore changes in com-
petency, let alone public speaking anxiety, from the beginning of the semester to the end in purely online sections of the basic course.

Other research has focused specifically on learning and satisfaction within the online classroom. Russell (1999) wrote a book called *The No Significant Difference Phenomenon* in which he compiled the results of 355 research studies that found no significant difference between the quality of instructional outcomes for distance-based courses versus those delivered using traditional, face-to-face instruction. This text is often cited to illustrate that there are not significant differences between the online and traditional classroom. Additionally, according to Miller (2010) “Several studies suggest that learning outcomes and learner satisfaction are comparable between online courses and traditional classroom courses” (p. 154). Yet, many instructors continue to voice concern and frustration surrounding the online basic speech course (Helvie-Mason, 2010). Recognizing that one of the customary goals of the course is the reduction of anxiety, Clark & Jones (2001) indicated that “it is useful to know whether there are differences in these areas between students who prefer one format to another” (p. 112).

In light of previous research illustrating decreases in speech anxiety upon completion of a traditional face-to-face basic speech course (Hunter et al., 2014; Rubin et al., 1997) and the significance of communication competency on student learning and development (Rubin et al., 1990; Rubin, Welch & Buerkel, 1995), this study explored the changes in students’ speaking anxiety and communication competency in the online context.
HYPOTHESES

The review of literature has led to the following hypotheses:

H1a: In an online basic public speaking course, students will have significantly lower trait-like public speaking anxiety upon completion of the course than they had upon entering the course.

H1b: In an online basic public speaking course, there will be a significant ordinal interaction between gender and trait-like public speaking anxiety before/after the course.

H2a: In an online basic public speaking course, students will have significantly higher levels of self-perceived communication competence upon completion of the course than they had upon entering the course.

H2b: In an online basic public speaking course, there will be a significant ordinal interaction between gender and self-perceived communication competence before/after the course.

METHODOLOGY

In order to assess impacts of the online basic public speaking course on students’ speaking anxiety and perceptions of their communication competence, this study used quantitative analysis through pre/post-test design. Quantitative measures replicated part of McCourt’s (2007) CA research methodology in that a survey measuring PSA was “given on a website to students enrolled in an online introductory college public speaking course.”
course at the beginning of a semester and then again at the end of that semester” (p. 3). McCourt’s study, like this one “expected that the experimental group, speech students [in her case] (N = 31), would display significantly lower scores on the Personal Report of Public Speaking Anxiety” (p. 3). In addition to applying these methods to the online context, the current study adds the variable of SPCC, operationalized by using McCroskey & McCroskey’s (1988) Self-Perceived Communication Competence scale (SPCC).

**Description of the Online Basic Speech Communication Course**

The university involved in this study requires a basic speech course to meet graduation requirements. The course objectives are designed to help students develop the skills needed for effective public speaking. Within this context, the course aims to strengthen both student competence and confidence associated with successful speech practices. The students’ ability to cope with speech anxiety is enhanced through the use of frequent public speaking activities, evaluative feedback, and skill development. It is also assumed that as students’ level of speech anxiety decreases, the amount of perceived communication competence will increase.

The online basic course follows the model of the traditional face-to-face course with adaptations for online instruction. Course content is delivered through online lecture tutorials. Moreover, adaptations include weekly online discussion board questions to replicate use of student peer evaluations of each online speech given based on the speech criticism model used in the traditional face-to-face context. Also, the students in the
online basic speech course deliver three speech assignments, each increasing in their scope and depth. These speeches are delivered in front of an audience of three members capable of making informed decisions and reasoning. The audience can be friends, family members, teammates or co-workers. The speeches are then recorded via webcam, and then uploaded to the course management software for instructor evaluation/feedback and student feedback.

**Infusing Treatment into the Course Design**

Exposure therapy was infused into the course through its design, which consists of increasingly-challenging speaking experiences throughout the course “to reduce reactivity by graduated exposure to speaking situations of greater potential stimulation” (Bodie, 2010, p. 87).

This type of “exposure” therapy has been utilized by psychotherapists to treat phobias from spiders to fear of flying, and it is also an essential element in building competence as well as confidence in public speaking in the college classroom (McCroskey, Ralph, & Barrick, 1970). Moreover, every time a student gave a speech or discussed his or her topic, ideas, or source material with the instructor or other students, he or she was engaging in this type of “repeated exposure” therapy.

Elements of cognitive modification, such as those tested by Fremouw & Scott (1979), were also included in the course design. Students were trained to identify their negative feelings about public speaking and replace them with positive attitudes, experiences, and strengths-based feedback. PSA readings, online resources and discussions offered the students a restruc-
tured, alternative view of anxiety as a normal and frequent human trait. In this way, students were given opportunities to practice “realistic thinking” (Booth-Butterfield & Booth-Butterfield, 2004, p. 81) acknowledging that the problem of anxiety exists, and acknowledging one’s challenges as a speaker, but viewing these challenges through a strengths-based lens. Also, in the online course the instructors are trained to provide positive, encouraging feedback along with critique. In the calibration for the course, instructors partake in training on creating useful and reliable feedback for student speeches. Instructors are asked to identify one or two strengths about a student’s speech for every constructive criticism or limitation identified. This type of evaluative feedback helps build student confidence. Cognitive modification allowed for improved attitudes toward PSA and, hence, toward public speaking.

Finally, competence training inherent to the course built public speaking skills, which are vital to the reduction of PSA (Adler, 1980; Kelly, 1997). The online public speaking program examined in this study was crafted to enhance student competency through assigned readings and testing on classroom concepts related to skill development, and through student participation in online discussion boards. As a result, the skills training provides a major portion of the instructors’ assistance in helping their students to achieve greater confidence in public speaking.

Participants

Participants in this study (N = 147) were undergraduate students (n = 46 males, n = 101 females) at a mid-sized Midwestern university, each enrolled in a sec-
tion of the online basic speech communication course. The participants ranged in age from 17 to 54 ($M = 20.63$, $SD = 5.28$). Because this course fulfills a university general education requirement, a variety of student majors were represented.

**Procedure**

A purposive sample was drawn in order to assess the PSA and SPCC of students in the online basic speech course. The sampling frame for the questionnaire included all students enrolled in the course for four semesters, about 335 students. Upon university approval for 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. The pretest and posttest portion of the analysis garnered a return rate of 44 percent with 147 students completing both the pre and posttest.

**INSTRUMENTATION**

PSA was operationalized for numerical analysis and pretest/posttest comparison by utilizing McCroskey’s (1970) Personal Report of Public Speaking Anxiety (PRPSA). The questions on the PRPSA are written on a 5-point Likert-type scale, 1 being “strongly agree” and 5 being “strongly disagree,” indicating how well each statement applies to the participant. This questionnaire consists of 34 statements that measure levels of anxiety that are solely speech related. Each statement describes a personal characteristic such as “My thoughts become confused and jumbled when I am giving a speech.” The
results indicate whether the person has high (131 and above), moderate (98-130), or low anxiety (below 98). Reports of PRPSA means are not often published as the impetus of the instrument is designed and used to identify highly anxious students (Pribyl et al., 2001). However, Hunter et al. (2014) reported a mean PRPSA score of 114.83 (within the moderate range) for their sample of college students (n=468) entering the basic communication course, an anxiety level nearly identical to that reported in McCroskey’s (1970) research (n=945) from over four decades ago (114.6). The PRPSA scale has proven to be highly reliable (Smith & Frymier, 2006). The reliability for PRPSA in the current study was $\alpha = .93$ initial course and $\alpha = .95$ post course.

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, especially when CC is linked to PSA (Ellis, 1995; Hinton & Kramer, 1998; MacIntyre & MacDonald, 1998; Rubin et al., 1997). Considering the aim of this study, with regard to assessing the online basic public speaking course, a self-report measure was utilized. Because of concerns surrounding student growth and development in online courses (Miller, 2010), the self-report measure afforded an opportunity to determine students’ own beliefs before and after the course.

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 differ-
ent types of receivers (McCroskey & McCroskey, 1988). 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, indicating the level of competence a person perceives that he or she possesses. For the total SPCC score, any number above 86 denotes that the participant has a high-perceived level of CC while scores below 51 indicate a low perception of one’s CC. In addition, scores for the public, meeting, group, and dyadic contexts are provided. Further computation can be completed to measure SPCC in reference to the receivers (strangers, acquaintances, and friends) (McCroskey & McCroskey, 1988). The SPCC scale has proven to be reliable (McCroskey & McCroskey, 1988). The reliability for SPCC in the current study was $\alpha = .80$ at the outset of the course and $\alpha = .90$ post course.

**RESULTS**

Split-plot ANOVAs were utilized to determine whether there were changes in the dependent variables (public speaking anxiety and self-perceived communication competency) over the course of a semester. This design also allowed for the testing of interactions based on students’ gender. Alpha was set at $p < .05$ unless noted.

This study’s first hypothesis predicted that students enrolled in the online basic public speaking course
would have significantly lower trait-like PSA upon completion of the class than they had upon entering the course. This hypothesis was supported. A within-subjects, split-plot analysis showed that the pretest mean score \((M = 117.04, SD = 20.79)\) was 8.14 points higher than the posttest mean score \((M = 108.90, SD = 21.17)\). Thus, a significant decrease was found between the mean PRPSA scores from the beginning of the semester to the end \((F(1, 145) = 28.05, p < .001, \eta_p^2 = .162)\).

This study’s first hypothesis also predicted that in the online basic public speaking course there would be a significant ordinal interaction between gender and trait-like PSA before/after the course. A 2 \(\times\) 2 split-plot ANOVA was used to measure the interaction between the dependent variables (pre-PRPSA and post-PRPSA) and the independent variable (gender). No ordinal interaction was found between PRPSA time \(\times\) gender \((F(1,145) = .514, p > .05, \eta_p^2 = .004)\). As noted above, there was a significant main effect from pretest to posttest. Also, there was a significant main effect for gender \((F(1, 145) = 5.85, p < .05, \eta_p^2 = .039)\). Female participants’ pretest PRPSA scores \((M = 119.92, SD = 22.15)\) averaged 9.22 points higher than male participants’ scores \((M = 110.70, SD = 15.97)\). In addition, females’ posttest PRPSA scores \((M = 111.13, SD = 23.19)\) were also significantly higher than the male participants \((M = 104.01, SD = 14.98)\). Females’ posttest scores averaged 7.12 points higher than the males’. Female students lowered their PRPSA scores by 8.79, while men lowered their PRPSA score by 6.69. Female participants did have higher PRPSA scores than men at the beginning and end of the course, however, female scores decreased by a greater amount than males. Thus, by the end of
course, the female students’ PRPSA was closer to the males score during pretest—thus, helping to close the gender gap in PRPSA between females and males.

This study’s second hypothesis predicted that students enrolled in the online basic public speaking course would show significantly higher self-perceived communication competency upon completion of the class than they had upon entering the course. This hypothesis was not supported. A within-subjects split-plot analysis was conducted to determine whether SPCC changed from the beginning of the semester to the end. The posttest mean of 76.88 (SD = 15.58) was not significantly higher from the pretest mean of 74.52 (SD = 16.10). No significant increase was found between the mean SPCC scores from the beginning of the semester to the end of the semester (F(1, 145) = 2.42, p > .05, ηp² = .016).

This study’s second hypothesis also predicted that in the online basic public speaking course there would be a significant ordinal interaction between gender and self-perceived communication competency before/after the course. This hypothesis was not supported. A 2 × 2 split-plot ANOVA was used to measure the ordinal interaction between the dependent variables (pre-SPCC and post-SPCC) and the independent variable (gender). The SPCC time × gender interaction (F(1, 145) = .001, p > .05, ηp² = .016) failed to produce a significant ordinal interaction. Also, as noted above, the main effect for SPCC time was not significant. Moreover, the main effect for gender (F(1, 145) = .276, p > .05, ηp² = .002) was not significant.

To extend our understanding on the impact of SPCC, a split-design ANOVA was used to determine the ordinal interactions between the pretest and posttest
SPCC subsets and gender, as well as the significant main effects. With regard to the communication contexts measured within the SPCC, three of the four contexts (public, group, and dyad) produced no significant ordinal interactions. The main effect for gender was also not significant \( (F(1, 145) = .943, p > .05, \eta^2_p = .006) \). However, one significant main effect was found in a particular communication context. The main effect for the SPCC context pertaining to communication in meetings was significant \( (F(1, 145) = 8.458, p < .05, \eta^2_p = .055) \).

This means that students in the online course increased their SPCC in meetings from the beginning of the semester \( (M = 64.87, SD = 21.63) \) to the end of the semester \( (M = 70.14, SD = 18.95) \).

With regard to the SPCC with particular types of receivers, two of the three types (acquaintance and friend) produced no significant ordinal interactions. Also, the main effect for gender \( (F(1, 145) = .654, p > .05, \eta^2_p = .004) \) was not significant, but one significant main effect was found for a particular receiver type. The main effect for SPCC stranger was significant \( (F(1, 145) = 16.672, p < .001, \eta^2_p = .103) \). Over the course of the semester, students' SPCC in communicating with strangers increased from the beginning of the semester \( (M = 58.62, SD = 23.32) \) to the end of the semester \( (M = 66.51, SD = 20.85) \).

**DISCUSSION/COURSE IMPLICATIONS**

The comparison of pretest to posttest PRPSA means showed a statistically-significant decrease in PSA upon completion of the online public speaking course compared to scores upon first entering the course, thus the
first research hypothesis was confirmed. Hence, the system of teaching the online basic speech course infused with exposure therapy, cognitive modification, and skills training was successful at lowering trait-like PSA by an average of 8.14 points. This significant decrease in trait-like PSA suggests that the online basic public speaking course does provide a quality educational setting which produces measurable increases in skill development and student growth. Emanuel (2005) stated that the main purpose of the basic course is career preparation, and Kinnick, Holler, and Bell (2011) further asserted that one of the primary goals of most basic communication courses is the reduction of public speaking anxiety. Furthermore, McCroskey (1984) has asserted that increased PSA can act as a barrier to career accomplishments. Therefore, significant decreases in PSA are a marker of student growth that evidences educational quality, hence helping diminish, to some extent, the concerns about the online basic public speaking instruction identified by instructors like Helvie-Mason (2010) and Miller (2010).

It is worth noting however, that previous research by Hunter et al. (2014) explored the changes in PSA for students enrolled in the traditional, face-to-face basic speech course and found a significant decrease from pretest to posttest that reduced the students’ PSA by an average of 13.21 points. Russell (1999) suggested that the wealth of studies finding “no significant difference” between online and face-to-face courses served as evidence that these two environments produced roughly equivalent outcomes for student learning. Although we are not able to directly compare the results of this study to the Hunter et al. (2014) study, there may be a differ-
ence in student outcomes between online and face-to-face instructional contexts for the basic public speaking course. Future research should explore a side-by-side comparison of traditional and face-to-face courses in their ability to reduce public speaking anxiety.

Hypothesis one also proposed that there would be a significant ordinal interaction between students’ gender and trait-like PSA before/after the course. This hypothesis was not supported. There was no significant interaction between gender and pretest/posttest PRPSA. However, the main effect for gender and pretest/posttest was significant. These results are similar to previous research which found that females have regularly reported higher PSA than males (Friedrich, 1970; Hunter et al., 2014; McCroskey et al., 1982). Although women’s speaking anxiety remained significantly higher than men’s at the end of the online course, both genders benefited from the triangulated treatment for anxiety reduction. This finding is particularly important, given the Hunter et al. (2014) finding that the basic public speaking course in the face-to-face context was able to erase significant gender differences in PSA, while this study found that the online course was unable to do so. Future comparisons of the two instructional contexts is warranted to ascertain the extent of the differences between their outcomes.

A second hypothesis that arose out of the literature review predicted a positive change in students’ SPCC from the beginning of the semester to the end through the online basic speech course. This hypothesis was not confirmed. Although the online course design was able to increase students’ perception of their communication competency by 2.36 points, this increase was not statis-
tically significant. Research by Rubin et al. (1990) and Rubin et al. (1995) demonstrated that face-to-face communication instruction significantly helped students both overcome anxiety and improve perceived competency. While the current study did find a significant small/moderate change in PSA, the change in students’ SPCC was limited and not significant. The small change in SPCC may be explained by the previous findings of MacIntyre and MacDonald (1998) who suggested that speakers look to their audiences for feedback and support during their presentations. A majority of face-to-face basic course sections enroll 23-26 students (Morra-ale, Worley, & Hugenberg, 2010) who serve as both speakers and audience members. However, in the online course evaluated, the students are asked to present their speeches to an audience of only three individuals. Moreover, these three individuals need not have any previous speech training. Thus, the difference in the required audience size and the communication competency of the selected audience may have reduced the impact of the course’s exposure therapy as compared with that in face-to-face courses, hence diminishing the online course’s impacts on improving students’ perceptions of their communication competency. This is one particular area that is worthy of additional investigation. Do online courses that require larger audiences who consist of people trained in public speaking help students improve their SPCC more than those that require small, untrained audiences? These findings would be of great use to basic course directors and faculty who teach in the online context and are concerned with increasing students’ self-perceived communication competency.
Hypothesis two also proposed that there would be a significant ordinal interaction between students’ gender and SPCC before/after the course. This hypothesis was not supported. There was no significant interaction between gender and pretest/posttest SPCC. Although females’ SPCC scores were lower than males’ during the pretest and the posttest, the difference was not significant. These results contradict Donovan and MacIntyre (2004) who found significantly lower SPCC for females when compared to males. The lack of significant difference between females’ and males’ SPCC may suggest that gender differences are waning. However, the lack of change could also be related to the online context used to teach this course. Thus, additional research is needed to assess the differences in impacts on SPCC between online and traditional courses. Also, the impact of gender, as it relates to SPCC, needs further exploration as potential differences in gender could be a disadvantage to female students (Donovan & MacIntyre, 2004).

While analyzing SPCC, the various constructs measured in the SPCC instrument (McCroskey & McCroskey, 1988) afforded additional data analysis and results. The SPCC measure explored students’ perceptions of their SPCC as well as seven subsets of perceived competency. Within the seven subsets of SPCC, significant differences were found between students’ pretest and posttest perceived communication competency within only two of them: the meeting context and for communicating with strangers. Students enrolled in the online basic public speaking course had significantly higher meeting SPCC at the end of the course than they had at the beginning. However, there were no significant changes in the public, group, or dyad context.
significant change in meeting SPCC is surprising considering the research by MacIntyre & MacDonald (1998) who suggested that speakers look to their audiences for feedback and support during their presentations. The online course used for this study asked speakers to have an audience of three members. Yet, the group context of the SPCC instrument inquires about a students’ self-perception of talking in a “large meeting.” Thus, there appears to be a relationship between the size of the online audience and students’ self-perception of their meeting SPCC. However, further exploration of the SPCC contexts is needed to illuminate these differences in both traditional and online sections of the basic course. Perhaps more startling than the significant change in the meeting context is the lack of change in the public, group, and dyad contexts. Communication educators should explore additional techniques and pedagogical choices which will increase these elements of students’ SPPC as they relate to student growth and development in the online course.

The SPCC scale also identified perceived competency for communicating with different types of receivers (strangers, acquaintances, and friends). There were no significant differences in acquaintance and friend SPCC from the beginning of the course to the end. However, there was a significant difference in SPCC with strangers at the beginning of the course versus that at the end. These results can, perhaps, be explained by the online course design. Although students are required to have a live audience, their speeches are delivered to a camera which limits the interaction with the live audience (which is typically comprised of friends and acquaintances). Moreover, the students are required to
watch their classmates’ speeches and provide written criticism to their classmates, but students enrolled in the online sections of the basic public speaking course have typically not been introduced to one another. Thus, unlike in many traditional, face-to-face basic public speaking courses, one’s classmates are likely still perceived as strangers, even by the end of the course. As a result, over the course of the semester, students can develop more perceived competency for communicating with their online classmates (strangers) than with their live audience (friends and acquaintances). Again, this result indicates that additional research is needed to explore the impact of course design on the SPCC subsets and student development. Future research should test whether online course interventions designed to elicit stronger relationships among classmates would enhance overall student SPCC by the end of the course.

**Limitations/Future Research**

Limitations of this study include the absence of a control group and the self-reporting nature of the PRPSA and SPCC data. The absence of a control group limits the study in that it cannot be ascertained that the treatment (the online basic speech course) is the only factor significantly decreasing the students’ levels of public speaking anxiety. Since nearly all of the participants were first-year students or sophomores, the research may also be measuring the development of greater confidence that is likely to accompany the college experience, rather than the effects of the course alone. At the university studied, approximately half of all incoming freshman take the basic public speaking
course their first semester of college, and the other half are enrolled for their second semester. Future studies may be able to test all incoming first-year students for PSA and 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. In this way, students who take the public speaking course immediately upon entering college can be compared with a control group of students who are taking other courses at that time and have not yet enrolled in public speaking.

Another potential limitation of the current study pertains to the self-report methods of the instruments used to gather data. Perhaps a richer analysis could be derived through in-depth interviews, focus groups or a triangulation of these methods. Additional qualitative measures for data gathering and analysis would also aid in ascertaining the causes of the PSA as well as, perhaps, offering a way to validate further the PRPSA’s and SPCC’s findings.

CONCLUSION

As communication programs and basic course directors are asked to provide evidence of successful student outcomes for online basic public speaking courses, measures such as the PRPSA (McCroskey, 1970) and the SPCC scale (McCroskey & McCroskey, 1988) can gain renewed impacts for instructors and departments who seek to assess these variables in an online context. Programs concerned about whether their courses will achieve similar PSA decreases within online basic speech courses might consider redesigning curricula to include the three-prongs of PSA-alleviating instruction
and practice tested in the model discussed in this analysis. Furthermore, the lack of change in SPCC found in this study suggests that online instructors should consider the relationship between the speaker and the audience as part of the online course design.

SPCC is impacted by instructional context. This study did not find any significant differences between pre- and posttest assessment of SPCC. MacIntyre & MacDonald (1998) suggested that the presence of an audience may reinforce the nature of the public speaking experience and how speakers perceive themselves and their level of competency. The lack of findings relative to SPCC suggests that online course design should be reflective on the need of a substantially large audience.

PSA is a common apprehension that impairs the life satisfaction and career success of many of its sufferers. However, through the treatment of speaking anxiety that involves a three-pronged approach of exposure therapy, cognitive restructuring, and skills-training, much of the negative impact of this dilemma can be lessened. The overall findings of this study supported the true importance of the basic speech course at the university level, specifically within the online context. The significant reduction in speaking anxiety within the online course is promising and suggests that this student learning goal can be met in this instructional setting. However, since enhancing students’ self-perceived communication competence remains a critical learning outcome of the basic communication course, these findings suggest that online course development heighten focus on SPCC-related interventions.
Shaking in Their Digital Boots

REFERENCES


Shaking in Their Digital Boots

classroom: A text and course outline (2nd ed.). Littleton, MA: Tapestry.


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Morreale, S., Hugenberg, L., & Worley, D. (2006). The basic communication course at U.S. colleges and
universities in the 21st century: Study VII. *Communication Education*, 55, 415-437. doi:10.1080/03634520600879162


