Reducing Public Speaking Anxiety for Native and Non-Native English Speakers: The Value of Systematic Desensitization, Cognitive Restructuring, and Skills Training

Tony Docan-Morgan[a],*; Thomas Schmidt[b]

[a] Associate Professor, University of Wisconsin, La Crosse, USA.
[b] Undergraduate Student, University of Wisconsin, La Crosse, USA.
* Corresponding author.

Abstract

This brief report examined how, if at all, a one-hour public speaking anxiety training session that includes systematic desensitization, cognitive restructuring, and skills training, affects public speaking anxiety for native and non-native English speakers. The results indicate that public speaking anxiety decreased after the workshop for native and non-native English speakers. In particular, scores on the Communication Anxiety Inventory (CAI) Form Trait decreased for non-native English speakers, but did not change on the State-Trait Anxiety Inventory (STAI) A-State. Further, scores on the STAI A-State decreased for native English speakers, however scores on the CAI Form Trait did not change.

Key words: Public speaking anxiety; Non-native English speakers; Systematic desensitization; Cognitive restructuring; Skills training

BACKGROUND

Public speaking anxiety, often times labeled "stage fright", is a specific type of communication-based anxiety whereby individuals experience arousal (e.g., increased heart rate), negative self-talk (e.g., "I'm concerned I'll look like an idiot"), and/or behavioral reactions (e.g., shaking) in response to an upcoming or actual presentation (Daly, McCroskey, Ayres, Hopf, & Ayres, 1997). Increased levels of public speaking anxiety can result in poor speech preparation (Daly, Vangelisti, & Weber, 1995) and affect performance negatively (Menzel & Carrell, 1994). Bodie (2010) argues that "competence in public speaking is paramount to student success in and out of the classroom" as public speaking is a "necessary part of both college and work responsibilities" (p.71).

Although public speaking anxiety is ubiquitous in that it affects most students in some way, scholars have argued that it may affect students who are learning English as a second or additional language at even higher rates (Alemi, Parisa, & Pashmforoosh, 2011). Recent research indicates that "speaking in front of others" is rated as the largest cause of anxiety for non-native English speakers (Awan, Azher, Anwar, & Naz, 2010). In her work on second language speaking anxiety, Woodrow (2006) asserts that "anxiety experienced in communication in English can be debilitating and can influence students' adaptation to the target environment and ultimately the achievement of their educational goals" (p.309). One of her findings indicates that English language learners from Confucian Heritage Cultures (CHCs) (e.g., China, Korea, Japan) experienced higher degrees of anxiousness. Awan *et al.* (2010) call for teachers and course designers to create "teaching activities that can help learners to reduce their anxiety" (p.39).

Current research suggests three techniques to reduce public speaking anxiety. First, systematic desensitization involves relaxation, deep breathing, and visualization (Friedrich, Goss, Cunconan, & Lane, 1997). This technique can be practiced in group settings or alone. Second, cognitive restructuring requires participants to create a negative self-talk list, identify irrational beliefs embedded in each thought, develop a coping statement for each irrational belief, and practice the coping statements until they become second nature (Ayres, Hopf, &

Peterson, 2000). The third technique, skills training, refers to learning and practicing techniques targeted toward improving individual speaking behaviors (Kelly, 1997). Skills training usually involves participating in a course where the student learns and practices public speaking skills (e.g., organization of ideas, delivery).

The current study heeds Awan *et al.*'s (2010) call for teachers to create "activities that can help learners to reduce their anxiety" (p.39) by examining how, if at all, systematic desensitization, cognitive restricting, and skills training affect public speaking anxiety for native and non-native English speakers.

RQ1: How, if at all, does a one-hour public speaking anxiety training session that includes systematic desensitization, cognitive restructuring, and skills training, affect public speaking anxiety for non-native English speakers?

RQ2: How, if at all, does a one-hour public speaking anxiety training session that includes systematic desensitization, cognitive restructuring, and skills training, affect public speaking anxiety for native English speakers?

METHOD

Participants

Participants consisted of 64 undergraduate students at a Midwestern university in the United States. Seventeen of these participants identified as non-native English speakers and 47 identified as native English speakers. First year students ($n = 34$), sophomores ($n = 16$), and juniors ($n = 5$) participated in the current study. Eleven students did not report their year in school. Students from a variety of majors participated, including business ($n = 11$), biology and chemistry ($n = 8$), pre-med and health ($n = 6$), communication studies ($n = 6$), education ($n = 4$), math/physics/computer science ($n = 3$), exercise sport science ($n = 3$), psychology ($n = 3$), art and music ($n = 2$), archeology ($n = 1$), and English ($n = 1$). Six students reported being undecided on a major and 10 did not report their major.

Procedures

Participants were recruited via campus advertisements (i.e., posters, in-class instructor announcements, email). Students signed up for a free one-hour workshop aimed at reducing public speaking anxiety. Students chose to attend one of four available workshops (each covered the same topics). Students completed two public speaking anxiety measures immediately before and after the workshop. The one-hour workshop, lead by the first author, started with a definition of public speaking anxiety, its prevalence, and common symptoms. Students were then introduced to and practiced systematic desensitization (i.e., three-step process of relaxation and deep breathing, visualization,

and speaking exercises). Next, students were instructed on cognitive restructuring, completed the four requisite steps (i.e., create a negative self-talk list, identify irrational beliefs, develop coping statements, practice coping statements), and received feedback on their progress. Finally, students were instructed on skills training and practiced individual delivery skills (i.e., using hand gestures, spanning the audience with eye contact, using vocal variation).

Measurement

The Communication Anxiety Inventory (CAI) Form Trait, developed by Booth-Butterfield and Gould (1986), was used to measure participants' predispositions to experience anxiety in the public speaking context. CAI Form Trait is a commonly used measure and has demonstrated reliability and validity in previous studies (Ayres, 1988, 1990). For the current study, participants indicated how they generally feel (*almost never*, *sometimes*, *often*, *almost always*) to the following seven statements: *I enjoy speaking in public*; *I feel disappointed in myself after speaking in public*; *I avoid speaking in public if possible*; *I am terrified at the thought of speaking in public*; *I make a good impression when I speak in public*; *My body feels tense and stiff when I speak in public*; *I look forward to speaking in public*. Prior to analysis, necessary items were reverse-coded so that higher scores indicated greater anxiety. In the current study, the CAI Form Trait yielded alpha reliabilities of .83 for the pre-test and .85 for the post-test.

The State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970), as revised by Behnkeand Sawyer (1998) was used to measure self-reported state public speaking anxiety. The abbreviated version of the STAI, referred to as the STAI A-State scale, is a commonly used measure (Ayres, Ayres, Grudzinskas, Hope, Kelly, & Wilcox, 1995; Witt & Behnke, 2006) that consists of five statements (i.e., *I feel calm*, *I feel tense*, *I feel relaxed*, *I feel jittery*, *I feel at ease*). Participants in the current study indicated their agreement or disagreement with each item using a 5-point Likert-type scale. Prior to analysis, necessary items were reverse-coded so that higher scores indicated greater anxiety. The STAI has consistently demonstrated reliability and validity in previous public speaking anxiety studies (Behnke & Sawyer, 1998). In the current study, the STAI yielded alpha reliabilities of .85 for the pre-test and .90 for the post-test.

RESULTS

On the paired samples t-test comparing the pre-test and post-test of all participants, there were significant differences on the CAI Form Trait ($p = 0.015$) and STAI A-State scale ($p < .001$). Research question one asked: How, if at all, does a one-hour public speaking anxiety training session that includes systematic desensitization, cognitive restructuring, and skills training, affect public

speaking anxiety for non-native English speakers? On the paired samples t-test comparing the pre-test and post-test of non-native English speakers, there were significant differences on the CAI Form Trait ($p = .027$), but not on the STAI A-State scale ($p = .097$). See Tables 1 and 2.

Research question two asked: How, if at all, does a one-hour public speaking anxiety training session that includes systematic desensitization, cognitive restructuring, and skills training, affect public speaking anxiety for native English speakers? On the paired samples t-test comparing the pre-test and post-test of native English speakers, there were significant differences on the STAI A-State scale ($p < .001$), but not on the CAI Form Trait ($p = .116$). See Tables 1 and 2. Post hoc analyses revealed no significant differences between non-native English speakers and native English speakers in pre-test reports and no significant differences in post-test reports.

CONCLUSION

Public speaking anxiety is a common social phobia (Safir, Wallach, & Bar-Zvi, 2012) and a particularly difficult obstacle for non-native English speakers (Awan *et al.*, 2010). The current study examined how, if at all, a one-hour public speaking anxiety training session that includes systematic desensitization, cognitive restructuring, and skills training, affects public speaking anxiety for native and non-native English speakers. The results indicate that public speaking anxiety decreased after the workshop for native and non-native English speakers. In particular, CAI Form Trait scores decreased for non-native English speakers, but STAI A-State scores did not change. Further, STAI A-State scores decreased for native English speakers, however CAI Form Trait scores did not change.

The results of the current study point to the value of systematic desensitization, cognitive restructuring, and skills training for reducing public speaking anxiety for both native and non-native English speakers. Previous research aimed at discovering techniques to reduce public speaking anxiety focuses primarily on native English speakers (Whitworth & Cochran, 1996); however the current study provides support for techniques to reduce non-native English speakers' anxiety, which is a partial answer to Awan *et al.*'s (2010) call for teaching activities that can help non-native English speakers reduce their anxiety. Further research should continue examine methods for reducing non-native English speakers' public speaking anxiety. Some pertinent questions include: What is the optimal amount of time for public speaking anxiety training sessions (i.e., both time per session and amount of sessions)? Which of the three common methods of reducing public speaking anxiety—systematic desensitization, cognitive restructuring, and skills training—is most effective in reducing non-native English speakers' public speaking anxiety? What additional methods of public speaking anxiety reduction are equally or more effective than the three common methods? We call for teachers and course designers to develop and test innovative techniques and activities that can help learners reduce their public speaking anxiety.

Table 1
Pre and Post Anxiety Workshop - CAI Form Trait

	CAI Form Trait Pre-test		CAI Form Trait Post-test		*t*	*df*	*p*
	Mean	SD	Mean	SD			
Non-Native English Speakers	2.87	.57	2.65	.62	2.500	13	= .027*
Native English Speakers	2.78	.52	2.68	.54	1.607	41	= .116
Both Groups Combined	2.80	.53	2.68	.56	2.514	55	= .015*

Note: * indicates a significant difference.

Table 2
Pre and Post Anxiety Workshop - STAI A-State Anxiety Scale

	STAI A-State Scale Pre-test		STAI A-State Scale Post-test		*t*	*df*	*p*
	Mean	SD	Mean	SD			
Non-Native English Speakers	3.64	.73	3.47	.85	1.790	13	= .097
Native English Speakers	3.82	.71	3.50	.79	4.318	41	< .001*
Groups Combined	3.78	.71	3.49	.80	4.657	55	< .001*

Note: * indicates a significant difference.

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