

Impact of Instructor Characteristics on Changes in Students' Public Speaking Anxiety

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This study explores the impact of instructor effectiveness on students' achievement of course learning objectives. The authors examine how public speaking course instructors affect changes in their students' speaking anxiety. McCroskey's (1970) Personal Report of Public Speaking Anxiety was distributed during the first and last weeks of the semester to 1,681 students at a large, public university. A multilevel model was developed to determine whether students with more effective instructors experienced a greater reduction in speaking anxiety. Results indicate that both instructor effectiveness and students' pre-score on the PRPSA (1970) have a significant effect on change in students' speaking anxiety.

Keywords: basic course, assessment, speaking anxiety, instructor characteristics

INTRODUCTION

The ability to communicate effectively in public is essential to professional success (Fasano, 2017). Unfortunately, public speaking is an area where many individuals receive little preemptive training. Even in these teaching contexts, many individuals report significant anxiety about public speaking. This may not be surprising in light of research citing glossophobia, or the fear of public speaking, as the most common communicative fear (Ingraham, 2014; Mannuzza, Schneier, Chapman, Liebowitz, Klein, & Fryer, 1995; Spanos, Burnley, & Cross, 1993). Glossophobia can severely inhibit individuals' ability to give effective speeches, negatively impacting their success in public speaking contexts.

A primary goal of Basic Public Speaking Courses across all universities is to help students become more competent and confident speakers. One common obstacle that can impede this goal is students' fear of public speaking. Across the United States, speech instructors have historically included, in their curricula, instructional time devoted to reducing students' public speaking anxiety (Robinson, 1990). Furthermore, much of the research on public speaking anxiety has focused on effective techniques to reduce and manage anxiety and on the effectiveness of public speaking skills training, in the form of public speaking courses, to achieve these goals (Broeckleman-Post & Pyle, 2017; Dwyer, Carlson, & Kahre, 2002;

Finn, Sawyer, & Schrodt, 2009; Hunter, Westwick, & Haleta, 2014). A limitation of this research is that it fails to account for contextual factors that may also affect changes in students' public speaking anxiety. One contextual factor, for example, includes instructor characteristics such as clarity or use of humor. However, the effects of individual instructor characteristics on students' public speaking anxiety remains largely understudied and unclear. Therefore, the goal of this study is to examine if instructor characteristics have a significant impact in reducing students' fear of public speaking.

LITERATURE REVIEW

The instructor characteristics of interest in the current study were adopted from a 2017 study (Goldman, Cranmer, Sollitto, Labelle, & Lancaster, 2017) which examined the traits that college students prefer in their instructors. Results of Goldman et al.'s (2017) study found that students prioritize ten instructor characteristics: clarity, caring, competence, character, relevance, assertiveness, responsiveness, immediacy, self-disclosure, and humor. Here, we define characteristic as the features and qualities belonging to an instructor. These ten characteristics have been widely studied and reported on in the literature as having impacts on student perceptions of course work, students' engagement with course work, student perceptions and evaluations of instructors, and student learning. The current study arose out of an interest in determining if these same desirable and often effective characteristics have an impact on the reduction of students' public speaking anxiety.

In this case, "clarity" refers to the instructor's ability to effectively explain the meaning of course content in a way that is comprehensible and relatively easy to understand. Research on instructor clarity has consistently found that it correlates to increases in student learning of the material (Myers, Goodboy, & Members of Comm 600, 2014; Titsworth, Mazer, Goodboy, Bolkan, & Myers, 2015; Violanti, Kelly, Garland, & Christen, 2018). It is not surprising that instructor clarity would increase student learning, as clear explanations provide students with content knowledge. What has not been investigated however is what impact instructor clarity has, if any, on the reduction of public speaking anxiety.

Another trait related to the content and teaching of the course is the instructor's ability to demonstrate relevance. Instructors communicate "relevance" of course material by referencing real-life events outside the classroom and relating course material to students' personal lives and career goals. Studies have found that when instructors highlight the relevance of course content and course learning objectives to students' current and future lives and careers, there is an increase in student motivation to learn and in perceptions of student learning (Belet, 2018; Fedesco, Kentner, & Natt, 2017; Finney & Pyke, 2008; Gaspard, Dicke, Flunger, Brisson, Hafner, Nagengast, & Trautwein, 2015). In a course where one of the goals is reduction in public speaking anxiety, it is unknown if the emphasis on the relevance of public speaking skills is related to a reduction in student speaking anxiety.

In addition to the ability to explain the content clearly and to communicate the relevance of the content, students also included many relational items, such as caring, in their list of desired instructor traits. "Caring" indicates the extent to which instructors are concerned with students' personal and academic well-being. Students desire an instructor who appears to have a genuine interest in both students' performance in the classroom and in the students themselves. Studies have linked instructor caring to increased learning, higher motivation, and greater satisfaction with instructors' communication styles. (Myers, Goodboy, & Members of Comm 600, 2014; Rodriguez-Keyes, Schneider, & Keenan, 2013) "Responsiveness" is a dimension of an instructor's sociocommunicative style and refers to their willingness to be sensitive and reactive to the needs of others. While caring and responsiveness focus on how instructors interact and relate to students, the next characteristic, "self-disclosure" relates to how an instructor communicates about themselves.

Instructors' level of "self-disclosure" is based on their willingness to reveal information about themselves that students are unlikely to discover from other sources. Examples of self-disclosure include sharing information about family, friends, and personal experiences. The literature on self-disclosure presents mixed findings. While some level of self-disclosure can have a positive impact on student motivation and learning, self-disclosure that is too frequent or too personal can make students uncomfortable. Disclosures that are relevant to the course and content, such as sharing a story about

personal experience with speaking anxiety, are the most beneficial (Goodboy, Carton, Goldman, Gozanski, Tyler, & Johnson, 2014; Rasmussen & Mishna, 2008; Schrodt, 2013). One benefit of self-disclosure is that students see instructors as more relatable and trustworthy. In the case of speaking anxiety, relevant disclosures may make students feel more comfortable, which could decrease speaking anxiety.

Another instructor characteristic that students identified is “immediacy.” Immediacy refers to an instructor’s ability to promote feelings of psychological closeness in the classroom through the use of verbal and nonverbal behaviors such as using open posture, smiling, calling students by name, and asking questions. This widely-studied construct has been linked to greater positive affect in students as well as increased student learning and cognition (Baker, 2004; Violanti, Kelly, Garland, & Christen, 2018). Because reduced perceptions of distance between instructor and students can increase student affect as it relates to the class, it is possible that instructor immediacy could reduce student’s anxiety. A 2018 study of undergraduate statistics students found that greater levels of instructor immediacy were related to decreases in students’ anxiety about statistics (Tonsing, 2018). Additionally, a 2014 study found that students who reported that their instructors showed higher levels of immediacy also reported a greater intention to persist in the course and in college (Witt, Schrodt, Wheelless, & Bryand, 2014).

The final set of attributes relates to the instructors’ personality and credibility. Students perceive “competent” instructors as those who demonstrate expertise in the subject of the course. “Character” refers to an instructor’s trustworthiness and integrity. An instructor’s credibility, which is an evaluation students make based on the instructor’s expertise, believability, and trustworthiness has also been shown to increase student learning and motivation to learn (Witt et. al., 2014). An “assertive” instructor is one who is willing to take a stand and effectively use evidence to support their position. Finally, “humor” refers to an instructor’s ability to intentionally use verbal and nonverbal communication to elicit laughter from their students. Studies have found a link between instructors’ use of humor and reports of student learning, as well as an increase in student interest in course content (Machlev & Karlin, 2017; Wanzer & Frymier, 1999).

The goal of this study is to determine whether the instructor traits that students prefer are also effective in helping them to achieve course learning objectives, in this case a decrease in public speaking anxiety. Specifically, the authors hypothesize that students whose instructors possess high levels of the previously discussed characteristics will experience a greater reduction in their public speaking anxiety throughout the semester.

METHODS

Surveys were distributed to students in all sections of a basic public speaking course at a large, public university in Fall 2017. The sample included 1,681 students across 73 sections, taught by 43 different instructors. To measure change in public speaking anxiety throughout the semester, students completed a pretest during the first week of classes and a posttest during the last week of classes.

Measures

Public Speaking Anxiety

Public speaking anxiety was measured using McCroskey’s (1970) 34-item Personal Report of Public Speaking Anxiety (Cronbach’s $\alpha=.90$). Students completed this measure during both the pretests and posttests in order to assess change in anxiety throughout the course of the semester. PRPSA score is measured on a scale from 34 – 170 with higher scores indicating more public speaking anxiety. Change in PRPSA score was calculated by subtracting participants’ pre-test score from their post-test, so a *negative* number indicates that their public speaking anxiety *decreased* throughout the semester. On average, students’ PRPSA score decreased by 8.89 points (SD=18.8). PRPSA change scores were mean centered for analyses.

Instructor Characteristics

The instructor characteristics assessed were selected based on Goldman and colleagues' (2017) study examining what behaviors and characteristics college students prioritize in their instructors. Goldman and colleagues' results indicated ten traits that students want their teachers to possess (clarity, caring, competence, character, relevance, assertiveness, responsiveness, immediacy, self-disclosure and humor). In this study, students were asked about the extent to which items corresponding to each of these ten traits described their instructor. This measure differs from previous research (Goldman, et. al., 2017) in that the current study asked students which of these characteristics their instructors actually possess, while the original study was interested in which traits students desire in hypothetical instructors. Each of these characteristics were measured using end-of-the-semester instructor course evaluations, which are completed online and anonymously. (See Table 1 for the complete list of items and reliabilities). Scores for each of the instructor characteristics were calculated by averaging the corresponding course evaluation items.

Due to high correlations among the ten instructor traits, entering them into the model as ten separate covariates resulted in too much overlap, causing many of the effects to be canceled out. See Table 2 for correlations among instructor characteristics. An exploratory factor analysis with direct oblim rotation was conducted on the 26 course evaluation items to determine whether they represented underlying latent variables. After deleting items with primary loadings less than .6 and cross loadings greater than .4, all items loaded on a single factor. The 26 items were highly reliable ($\alpha=.99$) so they were averaged to compute an overall "instructor effectiveness" score for each instructor. Overall instructor effectiveness was measured on a scale of one to five with a higher score indicating a more effective instructor ($M=4.31$, $SD=.38$). Scores were mean centered to ease the interpretation of future analyses.

TABLE 1
INSTRUCTOR EVALUATION ITEMS

Trait	Item	α
Clarity	Difficult concepts are explained in a helpful way.	.95
	My instructor's in-class explanations help clarify course material.	
	My instructor explains assignments clearly.	
Caring	My instructor displays a personal interest in students and their learning.	.95
	I believe my instructor wants everyone to succeed in this course.	
	My instructor is interested in me as a person as well as a student.	
Competence	My instructor displays a clear understanding of course topics.	.97
	My instructor is knowledgeable about the course topics.	
Character	My instructor has treated all students in class with respect.	.93
	My instructor shows respect for diverse groups of people.	
Relevance	My instructor attempts to relate my present learning to work in my future profession.	.87
	My instructor makes course material relevant to me.	
	This course relates course materials to real life situations.	
Assertiveness	My instructor expresses themselves in a self-assured manner.	.93
	My instructor is able to defend his or her position.	
	My instructor is assertive.	
Responsiveness		.91

Immediacy	My instructor is actively helpful when students have problems.	.94
	My instructor adjusts to fit individual abilities and interests.	
	Students are encouraged to see the instructor if they are having difficulty.	
Self-Disclosure	My instructor encourages questions and expression of ideas.	.93
	My instructor is friendly and accessible.	
	My instructor creates an atmosphere where ideas can be exchanged freely and easily.	
Humor	The instructor uses personal examples to help explain course topics.	.90
	The instructor effectively integrates personal stories into their teaching.	
	My instructor uses humor effectively.	
	I laughed often in class.	

TABLE 2
CORRELATIONS OF INSTRUCTOR CHARACTERISTIC ITEMS

	1	2	3	4	5	6	7	8	9	10
1. Clarity	-									
2. Caring	.85	-								
3. Competence	.93	.87	-							
4. Character	.76	.87	.80	-						
5. Relevance	.81	.82	.76	.80	-					
6. Assertiveness	.87	.89	.84	.82	.87	-				
7. Responsiveness	.84	.97	.88	.85	.81	.89	-			
8. Immediacy	.88	.92	.89	.91	.83	.87	.92	-		
9. Self-Disclosure	.81	.79	.75	.74	.83	.81	.77	.81	-	
10. Humor	.84	.78	.78	.68	.74	.81	.76	.80	.75	-

*All correlations are significant at the .01 level

RESULTS

The first model estimated was a random intercept-only model to test whether average PRPSA Change differed among sections. Maximum likelihood estimation was used in all models due to the large sample size and the limited number of fixed effects (Hayes, 2006).

$$Y_{ij} = \gamma_{00} + u_{0j} + r_{ij} \quad (1)$$

Results indicate that, on average, students' PRPSA scores decreased by .05 points throughout the semester, which is not statistically different from zero ($\gamma_{00} = -.05$, $t(69) = -.07$, $p=.94$). A likelihood ratio test was calculated to test the significance of the random effect. The authors chose likelihood ratio rather than the Wald test because the Wald test assumes that the sampling distribution of the variance is normal, which is often an unreasonable assumption (Raudenbush & Bryk, 2002). The likelihood ratio test was statistically significant $\chi^2(1)=7.39$, $p<.01$, indicating that PRPSA Change scores differ significantly among sections. This finding demonstrates that students are nested within sections, so multilevel modeling is the appropriate method for this analysis. The intraclass correlation was .03, which indicates that 3% of variance in an individual's PRPSA Change score is accounted for by the average PRPSA Score of the section they are in. (See Table 3 for all estimates).

The final model includes instructor effectiveness score as a random predictor. Because students' pre-test score on the PRPSA and change in PRPSA score highly correlated ($p<.001$), pre-test scores are also

included in the model. The average pre-test score was 107.88 (SD=23.6). Pre-test scores were mean centered for ease of interpretation.

$$Y_{ij} = \gamma_{00} + \gamma_{10}INSTRUCTORSCORE_{ij} + \gamma_{20}PRESCORE_{ij} + u_{0j} + r_{ij} \quad (2)$$

Results indicate that instructor effectiveness is a significant predictor of students' PRPSA Change ($\gamma_{10} = -4.5$, $t(34) = -2.42$, $p=.021$). The interpretation is that, for every one-point increase in an instructor's effectiveness score, their students' public speaking anxiety will decrease an average of 4.5 points during the semester. (See Table 3 for all estimates). Students' pre-test scores are also significant predictors of PRPSA Change ($\gamma_{20} = -.32$, $t(1363) = -16.02$, $p<.001$). For every one-point increase in students' pre-test scores, on average, their public speaking anxiety will decrease .32 points during the semester. In other words, students with high public speaking anxiety at the beginning of the semester demonstrate a larger decrease in anxiety than students who indicate low public speaking anxiety at the beginning of the semester. The intercept (γ_{00}) indicates that students whose pre-test score was average and who have an instructor of average effectiveness tend to increase their public speaking anxiety during the semester by .4 points. However, this effect is not statistically significant ($p=.48$).

TABLE 3
PARAMETER ESTIMATES FOR THE 2 MODELS EXAMINING THE RELATIONSHIP
BETWEEN INSTRUCTOR EFFECTIVENESS AND PRPSA CHANGE

		Model 1	Model 2
Components	Intercept	-.05	.40
	INSTRUCTORSCORE		-4.5*
	PRESCORE		-.32***
Variance of random components	τ_{00}	9.81*	2.73
	τ_{11}		47.31
	τ_{01}		1.54
	σ^2	343.31***	288.13***
Deviance (-2LL)		11,926.56	11,685.78

* $p<.05$, ** $p<.01$, *** $p<.001$

We used the residuals from Models 1 and 2 to calculate the pseudo R^2 described by Hayes (2006). This calculation determines the amount of variance that instructor effectiveness scores and pre-test scores account for after accounting for between-section differences in PRPSA Change. Results indicate that effectiveness scores and pre-test scores account for 16% of the variance not accounted for by between-section differences in PRPSA Change.

LIMITATIONS AND FUTURE RESEARCH

One limitation of this study is that the ten instructor characteristics were so highly correlated that they were combined into a single aggregate score in the model. It is therefore impossible to determine which characteristics have a larger impact on changes in students' public speaking anxiety. Future research is required to examine the effects of each individual characteristic. Additionally, instructor effectiveness was measured based on students' perceptions of their instructor. Extraneous variables such as a student's grade in the course and their enjoyment of course content may have biased how they evaluated their instructor. Finally, this study only measured the impact of instructor characteristics on changes in public speaking anxiety. Future studies should explore whether these characteristics impact other learning objectives in a variety of courses.

FINAL CONCLUSIONS AND IMPLICATIONS

Despite these limitations, this research provided valuable insight in the areas of public speaking anxiety and the impact of instructor characteristics on course objectives. Specifically, this study investigated the impact of instructor characteristics on changes in students' public speaking anxiety throughout a semester. Both students' pretest scores and their instructors' scores on the desired characteristics item were significant predictors. Specifically, students with higher public speaking anxiety at the beginning of the semester and those with more effective instructors experienced a larger decrease in anxiety throughout the semester. These results demonstrate that the instructor characteristics described by Goldman and colleagues (2017) not only enhance the learning experience from the students' perspective, but also help students to achieve course learning objectives. Based on these findings, not only should public speaking course instructors teach students methods for managing public speaking anxiety, but also hone their own skills in the areas discussed by Goldman (2017) to help students become more confident speakers. Universities offering a basic public speaking course should provide training for their instructors focused on identifying each instructor's strengths regarding these characteristics. Instructors should be encouraged to take full advantage of the characteristics that come naturally to them, and also be given methods for improving in areas in which their skills are limited.

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