

Educators Addressing Anxiety

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Abstract

Students who feel anxiety can experience inhibited academic performance or struggle with communication skills. Past research has found that college curriculums created to address areas of students lives in which they commonly feel anxious can increase academic performance. The current proposal sought to determine if anxiety could be decreased and students could enhance their academic skills from participation in our experimental curriculum. Levels of anxiety were recorded a multitude of times throughout the experiment using the Beck Anxiety Inventory, administered by professors to students. GPA was also recorded to see if the curriculum increased academic performance. Professors utilized our developed curriculum for our experimental group while the other set of participants were in a standard freshman seminar course, the control group. Consistent with our hypothesis, our results found a decrease in levels of anxiety and an increase in academic performance from our Experimental group compared to our Control group. The conclusion from this study shows that a properly utilized curriculum can enhance students' academic performance, lower their levels of anxiety, and increase quality of life.

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A college classroom can be a temperamental atmosphere with a large impact on a student's academic performance. An anxious, disconnected, and uncomfortable classroom can cause students to refrain from communicating, focusing, and effect their abilities to perform at their full potential. This influenced our research in combination with past studies on anxious students who experienced increased academic performance from participating in specific college courses.

Past research suggests that there are a multitude of ways to utilize a classroom to equip students with progressive tactics both academically and personally. One of the common challenges inhibiting academic performance are public speaking and interpersonal skills. Overcoming the challenges with public speaking and interpersonal skills can be examined by understanding communication apprehension; which is considered an individual level of fear or anxiety associated with either real or anticipated communication with others. Public speaking instructors have been urged that their classroom effectiveness can improve through understanding the factors that influence communication apprehension in students (Veva, Pearson, Child, & Semiak, 2009). Communication apprehension is correlated with a number of factors; such as anxiety, depression, self-esteem, and other correlations that effect levels of willingness to communicate in specific courses (Veva, Pearson, Child, & Semiak, 2009). Veva and colleagues (2009) had administered surveys to assess undergraduate students enrolled in basic public speaking courses at two different universities; which ranged from questions about time spent on homework, levels of self-esteem, communication apprehension, and unwillingness to communicate. Veva and colleagues (2009) concluded that utilizing a curriculum on concepts

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relating more to students' communication skills increased participation and academic performance.

Systematic approaches to oral presentations prove effective as previous research has addressed the need for educators to use instructional approaches for students to attain proper and positive oral presentation skills (De Gruz, Balcke, & Roozen, 2009). A systematic approach is a methodical approach used repeatedly and is learnable through a step-by-step procedure which was implemented by De Gruz and colleagues (2009). Systematic approaches were used on topics such as goal orientation, self-efficacy, and thematic interest which have shown to be effective for students. De Gruz and colleagues (2009) administered questionnaires during their study which assessed students' self-reflection on their assignments and received constructive feedback from fellow classmates which proved beneficial for all students as a constructed learning process to implement personal and academic growth by focusing on their individual goals (De Gruz, Balcke, & Roozen, 2009). This addresses the requirement for educators to become more involved in promoting a constructive classroom atmosphere that works to increase self-efficacy and provide constructive feedback for students to expand personal and academic skills.

Utilizing concepts of individualization and self-awareness can increase academic performance. Many students attending college enroll in classes to fulfill requirements towards their degree program that require public speaking or communication skills. Public speaking is one of the highest ranked fears which can cause increased levels of anxiety that inhibit academic performance. A resolution to this issue has been studied by researchers Glaser and Bingham, as their study was based on the development of a curriculum for a public speaking class. Their curriculum focused on teaching concepts of self-awareness, building student relationships, and allowing personable presentations that created a more comfortable and positive atmosphere

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which proved beneficial for students' anxiety and connectedness levels (Glaser & Bingham, 2009).

Skills-based programs have been an effective method to help students reduce their public speaking anxiety; being taught in both one-on-one and seminar formats on how to prepare, deliver, and reflect on oral presentations. The result of skill-based programs acting as a helpful resource for students' promotion of oral presentation skills that they could transition through their academics had found a significantly higher drop in public speaking anxiety when compared to members of a control group who did not partake in a skills-based program (Pribyl, Keaten, & Sakamoto 2001). In comparison, fear based programs such as the "Fear and Loathing" program (Oumano et al., 2005) had found a decrease in public speaking and communication anxiety. The "Fear and Loathing" program (Oumano et al., 2005) is a systematic based program that addresses anxiety-based fears and how to effectively overcome them. Oumano had focused primarily on fears surrounding public speaking and communication anxiety through the program to increase participation. The Communication classes being taught at Manhattan Community College with this program centered on the fundamentals of cognitive behavioral therapy; promoting student brainstorming, group discussion about the awareness of non-conscious, habitual, negative behaviors and belief systems that cause fear/anxiety (Oumano et al., 2005).

Students learned and practiced strategies for relaxation, were exposed to specific methods that would develop systematic desensitization, and participated in group visualization experiences (Oumano et al., 2005). The concepts of these programs were effective in lowering students' anxiety levels and have left them equipped with skills to continue their undergraduate careers, as well as alternative methods for coping with their individual fears.

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This research has led us to create our present study which seeks to determine if a specifically utilized classroom curriculum can decrease anxiety and increase academic performance. This study has been proposed to examine how a classroom curriculum can help students alleviate their symptoms of anxiety by practicing a certain set of skills and how this can also equip them with skills they can use throughout their academic career and personal lives. Many students struggle with communicating effectively or participating in public speaking due to anxiety and fears; this study may contribute to how an educator can influence improvement in these areas for students.

Levels of anxiety and GPA were the variables used in our research. We conducted a longitudinal study that would assess levels of anxiety and GPA during a two-year period. Our dependent variables were measuring levels of anxiety, measured by using the Beck Anxiety Inventory, and GPA through the course of our study. Our conclusions were conceived through the idea of utilizing concepts and methods used in previous research into our created curriculum. We hypothesized a decrease in levels of anxiety and an increase in GPA from students in our experimental curriculum.

Methods

Participants

In order to test and further exemplify the importance of our study, we began with our population sample of 160 incoming high school seniors beginning their first undergraduate semester at Stony Brook University. The sample was divided evenly between gender; taking 80 male freshman students and 80 female students during their orientation. Our participants were between ages 17-19 with an ethnic breakdown of 44% Caucasian, 28% Asian, 13% Hispanic, 9% African American, and 6% Other. Orientation leaders were instructed on the specific course

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offerings that were designated to serve as our experimental curriculum and control curriculum. During the registration period, the orientation leaders would help students pick their courses and scheduled 40 students from each group of 80 male and 80 female students to take a required “Interpersonal Communications” course listing as a university requirement for transitioning high school students. We then took 40 students from each group of 80 male and 80 female students who would be registered in a standard freshman seminar course, which would serve as our control group. Students who were enrolled in either course would fulfill their D.E.C Category G requirement as well as 3 credits towards their 120 total credits for Stony Brook’s graduation requirement.

Materials

Both the experimental and standard seminar course were allocated four time slots that would meet twice a week to create an even distribution between the total 160 students. The 40 students who enrolled in each course were divided into class sizes of 20 for the experimental and standard course. Each class of 20 would also contain the same ratio of 10:10 per male and female students. Students’ from both the experimental group and the control groups during their first class meeting were asked to fill out the Beck Anxiety Inventory (Beck & Steer, 1993). The inventory consists of 21-multiple choice questions that serves as a self-report measure of anxiety symptoms in children and adults. The questions used ask about common symptoms of anxiety that the individual has experienced during the past month as each question inquires the severity of each symptom during that 30-day period. The inventory is based on a 0-3-point scale which categorizes 0 points as the specific symptom not appearing, 1 point the symptom mildly appears, 2 points the symptom is moderately present, and 3 points the symptom is severe. The inventory has a maximum score of 63 with different levels of anxiety; 0-21 total points suggests a healthy-

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low level of anxiety, 22-35 points suggests moderate anxiety that should be managed, and 36-63 points suggests severe anxiety with symptoms becoming potentially harmful to the individual. The inventory would be administered again post-semester for comparison with original scores pre-semester.

Procedure

A longitudinal experimental approach had been used for our research with a between-groups design. Both students from our experimental course and standardized course were assessed through their first undergraduate semester up until the first semester of their junior year. Our belief in the difficulties of transitioning and maintaining strong academic performance during the first two years at university is what drew us to this approach. We followed the students for at least four semesters worth of their academic performance; the experimental and control groups represented our independent variables, while levels of anxiety post-first semester and their overall GPA post-course acted as our dependent variables. The GPA would both serve as a dependent variable pending their first semester grades and also serve as an extension of our hypothesis to measure academic performance at the end of the students' sophomore year. BAI scores also served as an extension of our hypothesis as their scores were measured again before junior year.

Each of the courses were instructed by professors who we chose to bring in for this experiment; the interpersonal communications course operated under our experimental curriculum while our freshman seminar course offerings acted as our control group with no exposure to the experimental curriculum. The professors used for the experimental curriculum were social psychologists who specialized in studies linked to anxiety based disorders and social phobias. The freshman seminar course remained on a generalized and standard curriculum.

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Professors used for the seminar course held degrees in education, but had no specialization in psychology and used no implementation of the curriculum used for the interpersonal communications course.

Our interpersonal communications course throughout the semester had instructional methods that were presented to the students within the first week of classes. The first method of the experiment would expose students to social communication with others; every class meeting the students would come in and be addressed to sit next to someone new each day and begin the class conversing with the classmate. We used this method as a way to have a constant and efficient ice-breaker scheme to promote a more comfortable atmosphere. We felt this would be a positive way to try and decrease the levels of anxiety leading up to the oral presentations for the semester.

The oral presentations were instructed to students as (1) an informational speech, (2) a group-oriented speech, and (3) a personal speech. The informational speech would be grounded on concepts of factual research where students could pick any specific topic they wished to provide substantial information about that was research based. The group-oriented speech would be based on a group-decided project that would promote brainstorming, team work, and task delegation between the group members. Their final presentation was the personal speech which gave students the opportunity to present on an experience they felt comfortable enough to share. Leading up to each presentation were specific workshops and class lectures structured around addressing anxiety (and primarily focusing on presentation anxiety), goal setting, ways to promote self-confidence, and short practice speeches where the classmates and instructor provided constructive feedback.

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The curriculum was utilized throughout a fifteen-week semester. The curriculum would focus every three weeks on specific topics then would transition to new areas of lecture. The first three weeks of class lectured on social communication and understanding anxiety. The second lecture for three weeks focused on oral presentation skills and practice for the informational speech. The third lecture for three weeks was on goal-setting, practicing for group speeches, and constructive feedback workshops. The fourth lecture for three weeks concentrated on group-brain storming and practice for the group-oriented speeches. The final three weeks of the semester concluded with lectures based on mindset, self-efficacy, fears, and practicing for their personal speeches.

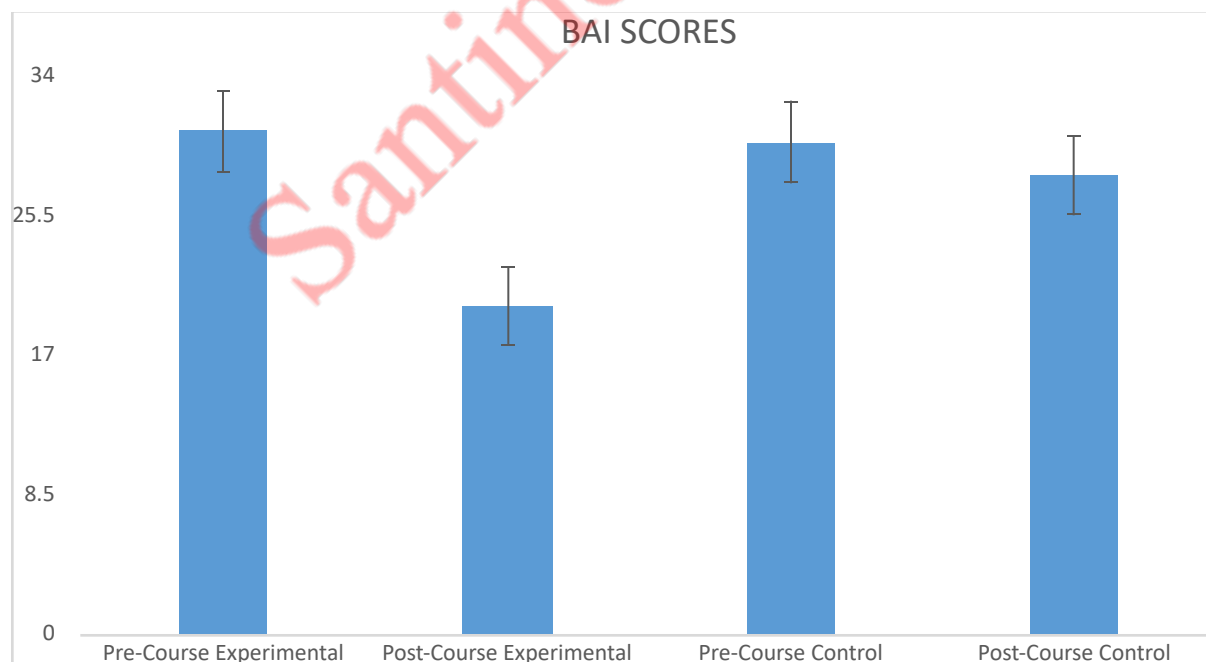
The experimental curriculum exhibited a personable atmosphere by introducing the students to alternative methods for anxiety reduction, how to interpersonally communicate with others, and practice methods for giving efficient oral presentations. The class was graded and based on overall effort and improvement; our instructors looked for transitions individually in the students' communications skills and how they participated within the class. In contrast, the control group's main focus was based on a standard freshman seminar curriculum; promoting campus resources, providing tips for academic success, and educating on aspects of the university. The main focus of the seminar class was to educate students primarily on the university itself and helping them with their transition out of high school. The class did have assignments that would allow for opinion and reflection from students through the semester, but it did not utilize any of the concepts or practices from our experimental curriculum. Our goal was to assess the difference between the first-semester experimental course that addressed specific concepts for individual growth that the students' could internalize and utilize versus the control

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group in the standardized classroom. Our outcome variables were both GPA and levels of anxiety.

Results

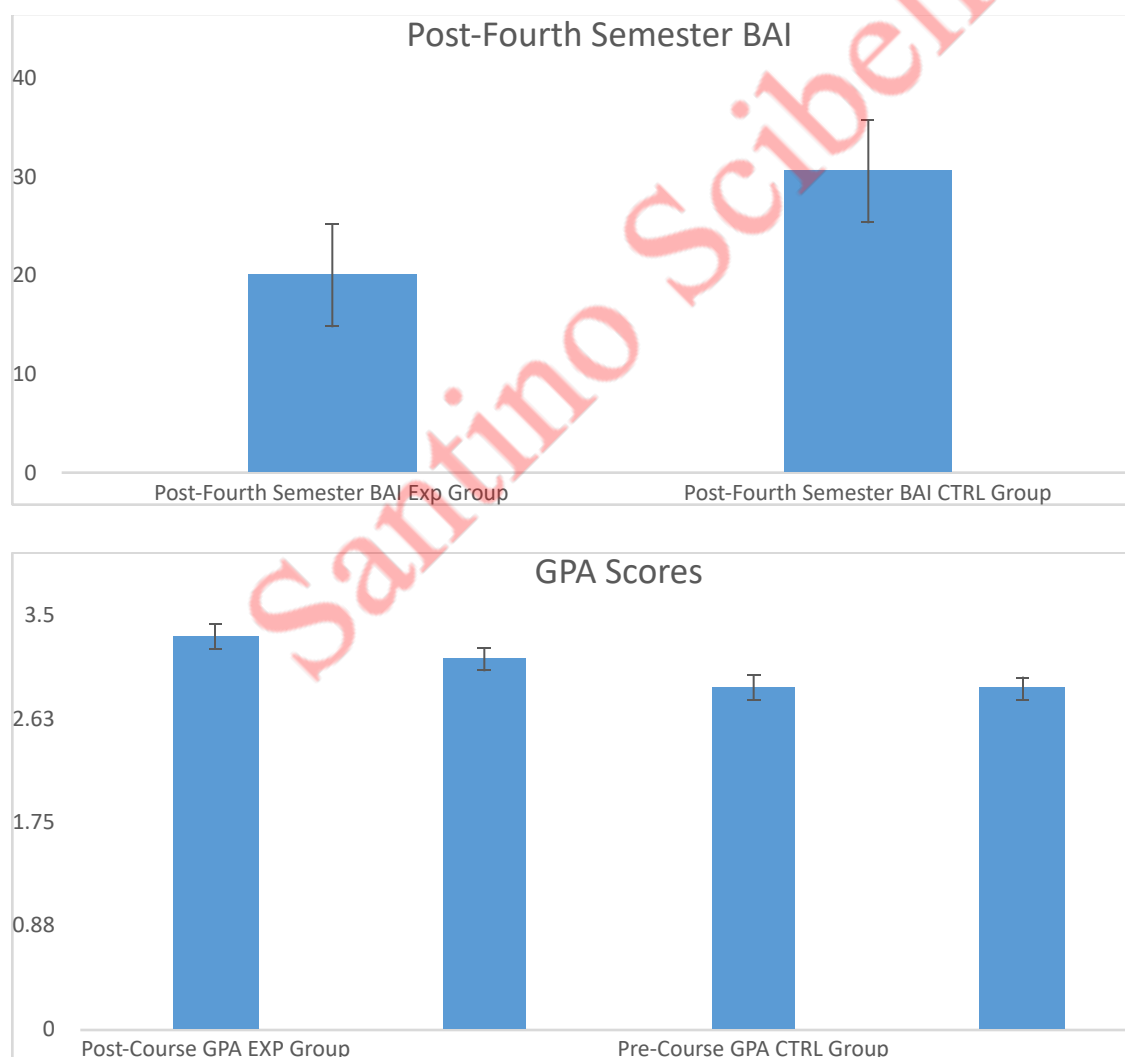
We used a series of 4 independent samples t-tests to compare our experimental group and control group on their BAI scores post-course, BAI scores post-fourth semester, post-course GPA, and post-fourth semester GPA. Our experimental group pre-course BAI scores showed moderate-high levels of anxiety ($M=31$, $SD=.12$) and our control group had comparable BAI scores ($M=30$, $SD=.15$). Consistent with our hypothesis, we found that our experimental group showed a decrease in their anxiety levels based on their post-semester Beck Anxiety Inventory (Beck & Steer, 1993) scores. We found significantly lower scores for our experimental group post-semester ($M=20$, $SD=.34$) compared to our control group ($M=29$, $SD=.23$), $t(179) = 2.39$, $p < .05$. These results are displayed in figure 1.



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Post-fourth semester scores BAI scores remained lower for the experimental group ($M=20$, $SD=.21$) in comparison to the control group ($M=30$, $SD=.43$), $t(179) = 6.62$, $p < .05$.

These results are displayed in figure 2. Also consistent with our hypothesis, we found that our experimental group showed higher GPA scores. GPA recorded post-semester was consistently high for our experimental group ($M=3.35$, $SD=.12$) compared with the control group ($M=2.97$, $SD=.47$), $t(179) = 1.32$, $p < .05$. Our longitudinal assessment of GPA remained almost consistent post-fourth semester for our experimental group ($M=3.17$, $SD=.11$) in comparison to our control group ($M=2.87$, $SD=.19$), $t(179) = 2.39$, $p < .05$. These results are displayed in figure 3.



Discussion

Our study was conducted in order to examine the classroom curriculum utilizing concepts to decrease levels of anxiety and increase levels of academic performance. We hypothesized that our experimental curriculum would decrease overall levels of anxiety and increase academic performance by measuring GPA. Our hypothesis was supported, as we found a drastic decrease in anxiety levels and positive correlations of academic performance with participants in our experimental group versus our control group. Post-semester GPA for our experimental group was much higher than our control group and GPA remained consistent through our two-year follow up period for our experimental group. Scores from the BAI post-semester from our experimental group reflected a transition from moderate levels of anxiety to low levels of anxiety; this was present with our experimental group performing strongly academically post-semester. We found significant decreases that were sustained through our two-year follow up period as BAI scores from our experimental group remained almost consistent with low post-semester scores versus our control group.

In comparison to studies conducted which addressed practices and methods to reduce anxiety and increase academic performance (Veva et al, 2009; De Gruz et al, 2009; Glaser & Bingham, 2009), our research conducted focused on expanding the practices used from these studies by preparing students with communication apprehension skills (Veva, Pearson, Child, & Semiak 2009), utilizing systematical approaches to help students improve public speaking (De Gruz, Balcke, & Roozen 2009), and building on concepts of self-awareness (Glaser & Bingham, 2009) to decrease anxiety levels. Our research utilized the studies of Veva, Pearson, Child, & Semikak (2009), De Gruz, Balcke, & Roozen (2009), and Glaser & Bingham (2009), with awareness of communication apprehension and practices within the classroom heavily

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decreasing students' anxiety levels and increasing their connectedness amongst other peers.

Practices combined from both a skills-based program (Pribyl, Keaten, & Sakamoto, 2001) and the "Fear and loathing program" (Oumano et al., 2005) were effective in our experimental study.

Practices from Pribyl, Keaten, & Sakamoto (2001) and Oumano et al (2005) aided in decreasing levels of public speaking anxiety and educate students on alternative methods to cope with anxiety-based fears. We were able to effectively utilize practices from previous research studies in order to create our curriculum which evidently found to be beneficial for the students involved.

The strengths in the study lie within our methods to effectively implement our curriculum. We found that adding our experimental curriculum to become a part of a test course added to the Stony Brook curriculum for the semester was an important piece for the rest of our research. The incentive for students to receive required credits towards graduating heightened incentive to take the course. Also, smaller class sized was a strength of our study as it was easier to keep track of individual progress and participation through the semester. Our experimental curriculum had transitioned smoothly and we were able to remain on schedule accordingly with 20 student class sizes; which also aided us to help create a comfortable atmosphere and promote interpersonal relationships among the students.

Among the limitations of our study was our use of a self-report measure (BAI) as our only measure of anxiety, although the BAI is a good measurement of anxiety levels. We also faced some conflict within each of our experimental groups as there were handful of students in each class who did not successfully participate in group discussions, assignments, or presentations. We also acknowledge that the data collected was from college freshman and it is not entirely generalizable to the overall population.

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In conclusion, this study found that a classroom curriculum that teaches communication skills, anxiety reduction methods, individualized concepts, and oral presentation skills can be beneficial for students' academic and mental health functioning. Overall quality of life and academic performance can reach maximum levels if educators focus more on addressing these concepts through classroom curriculums. This is an issue that should be more recognized as college curriculums typically require public speaking or communication classes but do not consider personal anxiety or their abilities to perform publicly. Courses centered on helping students break from anxiety and increase their abilities to academically perform should be furthered examined in order to better understand how it can overall increase quality of life, give students techniques to alternatively deal with anxiety, and equip them with communication skills to improve both academically and personally.

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