General Perceived Self-Efficacy and the Struggles of Test Anxiety

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I. Introduction

With tests becoming more prevalent as a way to measure student success, test anxiety arises, affecting the behavior of students. In high school, especially in the United States, it is said that testing time for 11th graders was approximately around 15 percent of the school year, not including college entrance exams, Advanced Placement testing and technical education course exams (Hefling). All types of anxiety are a reaction to something stressful, however in this case test anxiety affects the body and the mind (Hoffes). Most causes for test anxiety are poor test history, lack of preparation or fear of failure(ADAA). As a high school student, high expectations are held in order to be considered for a national high standard. High standards being those that one is only considered smart if scoring close to a perfect score. With standards being important to student's lives, academically and socially, test anxiety comes into play. The purpose of testing provides accurate assessment of previous learning however makes motivation more of a struggle for students to perceive (Dykeman). The various factors that contribute to test anxiety also have much to do with the student's motivational environment. Motivations are the fundamental building blocks which break up into attitudes, intentions and behavior (Fredricks). Motivational changes allow the students to think about how they are being affected and how this can affect others as well.

Self-efficacy, as made simple by the American Psychological Association, refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific behavioral performance (APA). This theory of self-efficacy has been known to be present in areas such as, test anxiety, drug abuse, pain control, exercise and many others. However, the idea has become increasingly relevant in the lives of high school students and it is important to take note. This theory of self-efficacy attributes given the difference instances such as

studying, motivation, changing poor test history which would eventually lead high school students to have some success in the near future.

After analyzing a wide variety of sources toward this unifying theory of self-efficacy and how the ability to execute behavior may affect students test anxiety leads to raise the question: how does GPA and perceived self-efficacy affect suburban high school student's behavior change toward test anxiety? After learning from past conclusions, a hypothesis for this study was made in which it is thought that there will be a positive relationship between self-efficacy and GPA but a slight negative relationship to test anxiety. In addition, it is hypothesized that the better the self-efficacy (motivation to do well on a test), the better that students will score on the test, lowering their levels of test anxiety.

II. Literature Review

The Ways of Behavior: Motivation

Introduced by Albert Bandura, Canadian-American psychologist and professor at Stanford University, the theory of self-efficacy was initially viewed in a behavioral perspective. He noticed through his various experiments such as the Snake Coping experiment (Bandura & Adams 2005) that behavior change can be caused by two major effects which are known as response consequences or motivations.

Motivation is a result of the influences of goal setting and self-evaluative reactions which in this case is the primary focus. In a response consequence setting (when the reaction to an action is negative), whether the experience (in a learning environment) was positive or negative, participants would recollect the experience and would be prepared for future outcomes (Newell, 1978). However, with motivation, future consequences are instantly visualized by participants, generating motivators of behavior. Behaving a certain way produces encouraged benefits or

avoids future difficulties. (Bolles, 1972). Individuals will eventually create self-inducements to help them fit the standard (set by the participants themselves) that are believed to be the best fit. When negative dissatisfaction results from the given experience, a corrective change in behavior is made(). Once the goal an individual sets has been fulfilled, they are no longer satisfied, resulting in the increase of self-efficacy and goal setting in which motivation can be seen as the motivator in an individual's behavior (Bandura, 1977). Self-efficacy is a form of enhancing results in order to notice how motivation is seen in an individual when acting to a certain situation, such as goal setting and the innate ability to fulfill the goal.

A study by Bandura and Nancy E. Adams consisted of subjects whose social and vocational exertion (social and occupational mental effort) were counter affected by chronic snake phobias. Participants voluntarily signed up through an advertisement placed in the newspaper, leading them to believe they would be serving a metropolitan area and its suburban communities. After they were gathered, participants would have to take an assessment of behavioral avoidance which consisted of 29 performance tasks (e.g. approach glass cage where snake was, look down on the snake, to touch and hold snake and etc.) increasing the level of threatening interactions with a red-tail boa constrictor (type of large non-venomous snake). While at the same time testing the self-efficacy with a pretest which were implemented into the experiment as the various tasks that the subjects were meant to complete. This was done in order to see the participants motivational responses. In which, those who would set the goal that they would enter take on the tasks even after hearing factual information about the snakes or be the participants that had no motivation, simply quitting the activities.

While Bandura and Adams approached the correlation of motivation, self-efficacy and behavioral change through chronic fear of snakes, professor of Psychology at University of

Massachusetts Amherst, Icek Ajzen, decided to take a different approach. By examining behavioral change, Ajzen explains that planned behavior is reasoned action made by the original model's limitations in dealing with behavior (Ajzen & Fishbein, 1980). This idea of planned behavior closely correlates to that of motivation in a change of action. Planned behavior is a participant's intentions to perform a certain task or a given behavior. These intentions are assumed to capture motivational factors that influence the behavior which measure how much a person is willing to try and their efforts that will be seen (Ajzen, 1991). Additionally to prove this correlation, Kevin D. McCaul, chair of Psychology Department from North Dakota State University, and his colleagues conducted two experiments which Ajzen's and Bandura's background of performance in behavioral change is observed and tested for results. In both experiments, the participants consisted of a sample of college students. For experiment 1, the participants were being examined of planned behavior in a self-examination of cancer detection context. In experiment 2, the participants McCaul explores that same concept but in the context of ways to prevent gum disease (McCaul & et.al). What these experiments both had in common was that the levels of self-efficacy for participating in these tasks were similar high. The results of these experiments support that the motivation for such behavioral influence was taken and had later seen improvements in participant's health.

Motivation: Self Efficacy and The Idea of Academic Achievement

Bandura takes in consideration that there are differential levels of self-efficacy where the coping behavior (actions taken to deal effectively with a given situation) is varied (Bandura, 1992). Self-efficacy can be seen in multiple scenarios, the most common being in an academic environment. It can be seen from a broad range of having enough motivation to do well on a test to having enough motivation to completing homework assignments. In a more modern setting,

Peter Muris, Professor of Section Clinical Psychology, shows the results on a focused sample of children from secondary school and their self-efficacy scores from a questionnaire that was divided into social, emotional and academic self-efficacy (Muris, 2001). Muris came to the conclusion that middle schoolers levels of self-efficacy were not as high as those compared to participants of Bandura's subjects which had a higher-level education. Although his conclusion may have had the implications that were only testing the internal consistency (a measure of how well the items on a test measure of the same construct or idea) of the Self-Efficacy Questionnaire for Children, he stated that there was a negative association between self-efficacy and depression relating to academic achievements.

In comparison to Muris' questionnaire with children of secondary education, Anna Zajacova, Associates Professor of Sociology, and her colleagues received fairly similar results. Zajacova decided to take a perspective of self-efficacy in the academic environment that is assumed to be the most stressful: college. She took a sample 396 college students to which she administered questionnaires and applied scales to. Her results were consistent with Muris' conclusions that there is a negative correlation between academic self-efficacy and stress (Zajacova et.al, 2005). Further seeing a common result in the journal article of "Relationship between self-efficacy and symptoms of anxiety, depression, worry and social avoidance in a normal sample of students" a questionnaire was given out to the high school students from 3 different districts in Iran (Tahmassian & Moghadam, 2011**).** When the results were then taken into consideration the researchers concluded that exactly as proven in Muris' and Zajacova's reports the correlation between self-efficacy and depression was a negative one. Assuming that when there are low levels of self-efficacy, problems in an emotional and social context involve mental health.

Self-Efficacy Vs. Test Anxiety

The researchers that previously who have contributed to the understanding of self-efficacy have all had a common conclusion finding a negative correlation between self-efficacy and depression, anxiety, or any behavior of an emotional nature. But when looking into self-efficacy and its effects on testing anxiety, Euckay Onyeizugbo, Chair of the Department of Psychology of University of Nigeria, results state otherwise. He conducted an comparative study with 249 final year college students of Combined Social Sciences and Psychology majors. He allowed the students to take tests in which they had to measure their own self-efficacy and effects in anxiety caused by tests. His results differ from what the past researchers had to say stating that there was a positive correlation between self-efficacy and academic performance. But has still gotten a negative correlation between the test anxiety and academic performance (Onyeizugbo, 2010). Adding with a modern perspective, Julia Roick, Research Associate and her colleagues came to the conclusion that self-efficacy is associated with a positive relationship of success (Roick & Ringeisen, 2017). She adds on to the idea that there is definitely more research that can be done to study the correlation of student's motivations and ability to succeed in a given situation.

As can be seen from the past researchers, students' level of self-efficacy and test anxiety are directly impacted by their levels of academic success. In one case, Jennifer Barrows graduate from Butler University Conference, and her colleagues state that the unhealthy behavior that student' deal with is due to the anxiety levels that arise from testing. Her choice of method was to use a previously validated questionnaire composed of pre and post sections (Barrows & et.al, 2013). Her results stated that high levels of test anxiety before an exam would negatively affect a student's exam grade. In addition to Barrows conclusions, Researcher of Educational Testing

Services, Donald E. Powers adds his perspective of test anxiety seen in a stressful test environment. In his study, he used a 20-item survey that was administered to a large, stratified random sample that were preparing to take the GRE test (Powers, 1986). He allowed the test takers to state how they felt generally when it came to test anxiety. After the test was complete, he gave the population the survey in which he broke up test anxiety into the different type of emotions such as worry, emotionality and other in which the results varied. In doing this, Powers was able to take the results from the survey and show how the self-efficacy of students their motivations and feelings during the test.

Gaps

One of the main gaps seen in the research is that in most studies it was seen that they were conducted outside of the United States. For instance, most of the studies that were analyzed can be seen to take place in Nigeria (Onyeizugbo, Iran(), Morocco(), and China(Xu). Geographic locations can vary the results due to the fact that there are different beliefs and traditions that can affect a student's behavior and educational outcomes in a self-efficacy and test anxiety mindset. China has always been known for their high expectation of education which allows students to be at different levels. that there is a need for studies with a focus on high school students. In most of the research that has been gathered, there is a large sampling of university students and children of secondary education (Muris). New understandings ofhigh school students are needed to confirm the results that have already been tested in other educational levels and how self-efficacy affects a student's anxiety levels. This piece that is missing can as well fill in a gap or questions as to how it affects future results in test anxiety or motivations for job opportunities or other topics such as post-secondary education.

All the previous studies contribute to the final goal of this study to examine how self-efficacy affects the test anxiety of a high school student. This study is aligned to the methods of Eukay Onyeizugbo in examining high school students. The difference however is the sample consists of college students undergoing a set of questionnaires and a test to get the best results of test anxiety and self-efficacy. Additionally, this study correlates to the Donald E. Powers study in which participants are asked of their opinion before and after of how they believed they performed during the test compared to how they actually . Going off of Eukay Onyeizugbo's and Power's results and conclusions, it is hypothesized that the correlation between self-efficacy and test anxiety will be negative. This means that the more self-efficacy that is present, the better a student will achieve their goal for the test and have a decrease in test anxiety.

III. METHODS

This study's procedures are aligned with those of Onyeizugbo's and Power's in their studies of self-efficacy in different sample groups.

A. Participants

Participants consisted of students which attend a diverse public high school located in the San Fernando Valley of Southern California. Granada Hills' diversity is spread ethnically as well as academically. GHC is a Co-ed high school with almost over 4,750 students attending. The students that represent the sample are from grades 9^{th} -12^{th} grade levels. The academic rigor in GHC varies in the different academic classes that the school offers (whether students take AP, IB or honors level courses). 100 participants, ranging from 14 – 18 years of age, were sampled in the process of this study. When breaking these 100 participants into genders, 64 of the participants were female and the other 36 were male.

As a way to collect a wide ranged sample of participants, students from unique programs were asked to voluntarily take the survey that was given. Students that gave permission to send the survey were emailed 2-10 hours later for the first survey and shortly after their exam for the second survey that was administered. In most cases students were given the incentive of being entered into a raffle to win a Starbucks gift card or win free candy.

Past studies have shown a correlation in a focused subject or study in this case the amount of academic rigor in this high school will vary the results and outcomes giving results that will fill the gap that is missing for research in this subject.

B. Instrumental Review

After asking the participants general demographic information such as gender, ethnic/race identity, grades and test dates, participants answered questions regarding self-efficacy and test-anxiety in order to understand how the student's self-efficacy affects their test-anxiety and motivation to do better.

The participants were asked to complete two survey type questions. In the first survey they were asked to fill out questions regarding general self-efficacy and general test anxiety which was similarly seen in Onyeizugbo's study in giving adolescent's the first set of questions. At the end of the first survey they were asked to give the day of an important exam. All participants had named an exam that they were worried or nervous for. Once given the date and collecting their emails, the participants were sent out the second set of questions in order to fill out how they felt about the exam in terms of self-efficacy and test anxiety. The second survey mirrors Power's study. However, Power's was utilizing the General Record Examination Test. In this study, the test that arose test

anxiety were specific and different depending on the participants. These tests were given in order to understand the difference between perceived general self-efficacy and test anxiety are affected in a test environment.

The questions asked were based on general self-efficacy, general test-anxiety, emotional, worry, and other types of test anxiety. (See tables below)

Table 1: Instrument Table with Citation

Questions	Measurement Scale	Source
Demographics	Assorted	
What gate did you enter from?	Flagpole, Boy's PE side, Teacher Parking Lot, Girls PE side Service Road, Hiwatha Parking Lot, J Gate, Kingsbury	Self-defined
What is your gender ?	Male, Female	Self-defined
What is your age?	14,15,16,17,18	Self-defined
What grade are you in?	Freshman(9), Sophmore(10), Junior (11), Senior(12)	Self-defined
What is your GPA? (Weighted)	Weighted GPA Open Response from 1.0 to 4.0 (Honors classes: 0.5, Ap and IB classes: 1)	Self-defined
What is your race/ethnicity?	Hispanic, White, Asian, Filipino, African American, Other	Self-defined
When in this month (month of november 2018) is your next big exam that you are most worried about?	Date: any from Nov.1 -Nov.30, Subject: any that are offered in granada hills charter high school, Period: any period from 0 period to 6th period	Self-defined
General Self-Efficacy (Before Test)	Likert Scale(1-4)	
I can always manage to solve difficult problems if I try hard enough..	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-NELSON.
If someone oppposes me, I can find the means and ways to get what I want..	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	
It is easy for me to stick to my aims and accomplish my goals...	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	
I am confident that I could deal efficiently with unexpected events...	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	
Thanks to my resourcefulness, I know how to handle unforseen situations..	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	
I can solve most problems if I invest the necessary effort....	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	
I can remain calm when facing difficulties because I can rely on my coping abilities....	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	
When I am confronted with a problem, I can usually find several solutions...	Not at all true(1), Hardly true(2), Moderately true(3), Exactly true (4)	

General Test Anxiety (Before Test)	Likert Scale (1-5)	
The closer I am to a major exam, the harder is it for me to concentrate on the material.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	Anxiety Scale." *Test Anxiety Control*, 2004, http://TestAnxietyControl.com/schoo
When I study, I worry that I will not remember the material on the exam.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
During important exams, I think that I am doing awful or that I may fail.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
I lose focus on important exams, and I cannot remember material that I knew before the exam.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
I finally remember the answer to exam questions after the exam is already over.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
I worry so much before a major exam that I am too worn out to do my best on the exam.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
I feel out of sorts or not really myself when I take important exams.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
I find that my mind sometimes wanders when I am taking important exams.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
After an exam, I worry about whether I did well enough.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	
I struggle with writing assignments, or avoid them as long as I can. I feel that whatever I do will not be good enough.	Not at all never(1), Slighty seldom true (2), Moderately sometimes true (3), highly usually true(4), Extremely always true(5)	

Emotional, Worry and Other Test Anxiety (After Test)	Likert Scale(1-4)	Powers, D.E. (1986) Test anxiety and the GRE general test. Report No. 86-45 Princeton, NJ: Educational Testing Service.
While taking the test I had anuneasy, upset feeling.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I felt very jittery when taking the test.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
Even when I'm well prepared for a test, I feel very nervous about it.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I'll start feeling uneasy justbefore getting my test scoresback.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
During the test I felt very tense.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I felt very panicky when I took the test.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I felt my heart beating very fast during the test.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
Thinking about the scores I'd get interfered with my work on the test.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I froze up on the test.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
During the test I found myself thinking about whether I'llget into college.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
The harder I worked at takingthe test, the more confused I got.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
Thoughts of doing poorly interfered with my concentration on the test.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I seem to defeat myself while working on tests.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
During the test I found myself thinking about the consequences of failing.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
During the test I got so nervous that I forgot facts I really knew.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I felt unsure and tense while taking the test.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
I wish examinations like the one I took did not bother me so much.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
During the test I was so tense that my stomach got upset.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	
After the test was over I tried to stop worrying about it,but I just couldn't.	Strongly Agree(1), Agree(2), Disagree (3), Strongly Disagree(4)	

C. Sample Selection

A stratified random sample was used in participant selection in order to collect data from the representative sample of students equally. The data chosen was take from the seven different gate entrances on campus in which different students decide to enter. For around a month, email addresses were collected in order to send the questions through school emails. This would take place from the times of 7:25 to 8:20 in the morning which most students arrive to school. This allowed an increase in more participants to take place for this study. This not only allowed increase participation but it was a way to persuade participants to take the survey. Once collecting all the data 100 students were separated from gates that they had entered in order to see the patterns between the data.

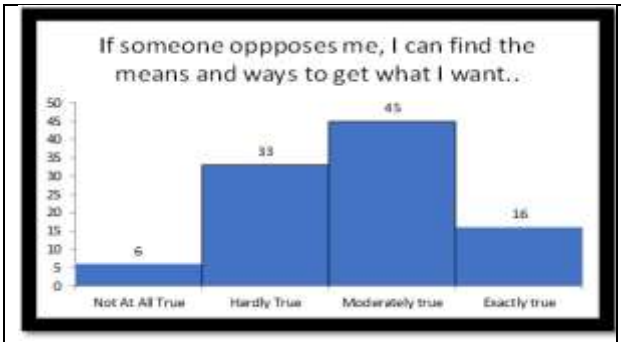
D. Implementation

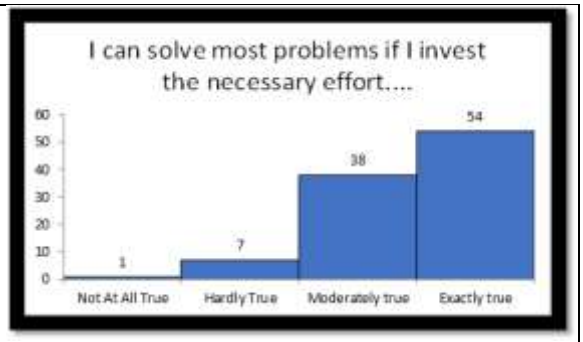
The surveys were implemented in the everyday life of this suburban high school. Using different method of collection, these surveys were distributed via email using chrome books, which ever GHC student is issued. Collecting participant's IDs helped reduce bias or other pressures that were made to this study. These surveys were made into a Google Forms and then sent out to the participants that were a part of this study. The surveys were sent through Google forms so that the students were able to fill the survey out on their own time or when they had the chance to. Once all the responses were

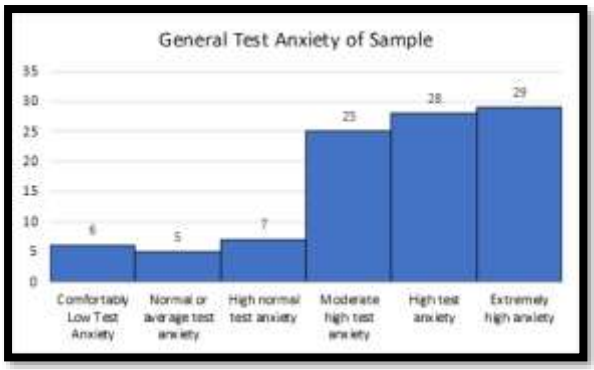
collected, they were transferred into Microsoft Excel. After being transferred onto Microsoft Excel, the data was analyzed and processed using the data analysis tools in Excel such as: histogram construction, regression analysis, data calculations and other determinations.

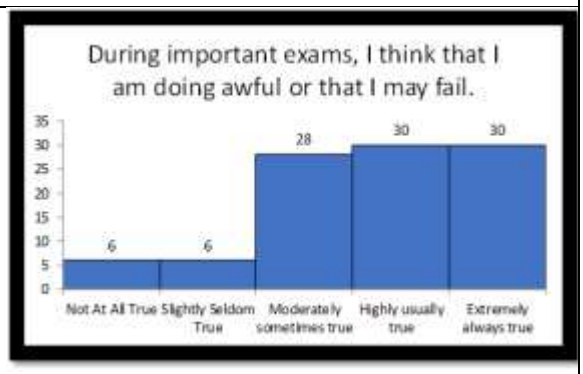
IV. Findings

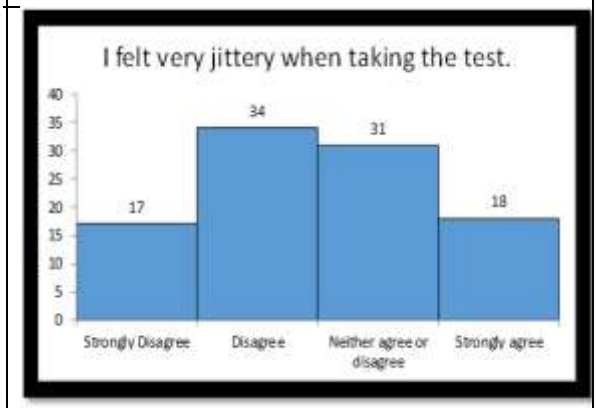
a. Histograms (My December 2018 Study)

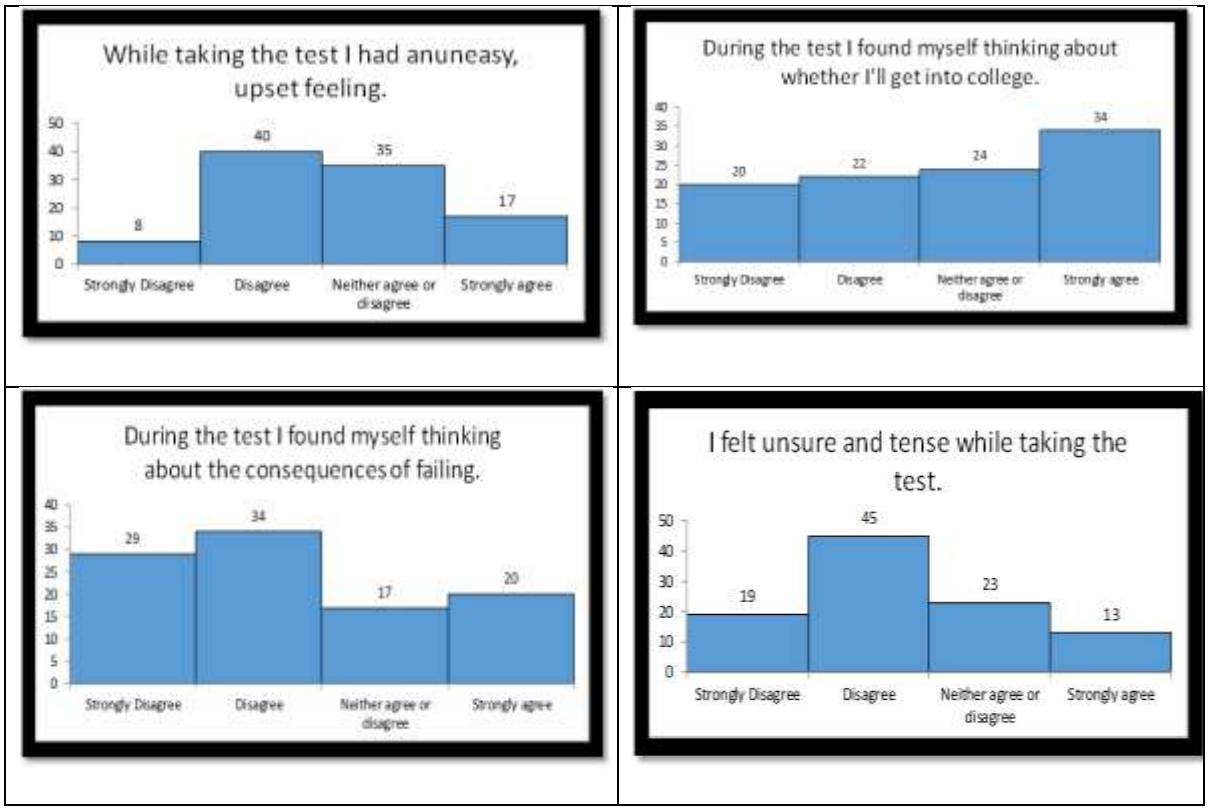












b. Regression (My December 2018 Study)

	Coefficients	*P-value*
General Self Efficacy	37.01	0.000
General Test Anxiety	-0.21	0.002

	Coefficients	*P-value*
Academic Performance	-1.247	0.020
GSE	0.520	0.001

	Coefficients	*P-value*
Academic Performance	12.169	0.000
Test Anxiety	0.042	0.088

V. Analysis of Findings

The data that resulted from the survey was analyzed and shows how the perceived self-efficacy does impact a high school student test anxiety. However, there are some predicters that

fall into place when analyzing the data. These predictors analyzed are as follows: general self-efficacy, general test anxiety, and grade point average (GPA).

General Self-Efficacy

Participants were told to self-report their general self-efficacy in the first survey given. 10 questions were given specifically for this section is also known as the General Self-Efficacy (GSE) Scale. The GSE Scale is scored on a 4 point Likert scale (1 being "Not at all true" and 4 being "Exactly true"). A correlation was running between the General Self-Efficacy (first survey) with the responses of the various types of test anxiety which include: emotional, worry and tension (second survey). In table 2, the correlation is seen from Onyeizugbo's study.

Table 2: Onyeizugbo's correlations and p-value

Predictor variable	Standardized coefficients Beta	Significant
Self-efficacy	.151	**
Test anxiety	-390	***

** = P<. 01, *** = p<. 001.

In this study, there was a close similarity to those results of Onyeizugbo's but not enough to have the exact same answer. However, the difference was only by .001 (as shown below). Table 3 shows the significance and well as p-value.

Table 3: This study's significance and p-value

	Coefficients	*P-value*
General Self Efficacy	37.01	0.000
General Test Anxiety	-0.21	0.002

General Test Anxiety

Similarly, participants self-reported their general test anxiety in the 10 questions that followed. These questions were taken from the Westside Test Anxiety Scale which measures on a 5-point Likert scale (5 being extremely always true and 1 being not at all never true). As a result, in Onyeizugbo's and Powers' study he was able to see that there was a positive correlation between self-efficacy and academic performance (.24, $p<.001$). He was also able to find a negative correlation between test anxiety and academic performance (-.43, $p < .001$). However, in the Table 3 and 4, the correlation and p-values are shown from this study. This study similarly had a positive relationship with the self-efficacy and academic performance in which a moderately positive relationship is seen. The difference is seen in Table 4 which can see a no correlation with test anxiety and academic performance.

Table 3: This Study's General Self-Efficacy and Academic Performance

	Coefficients	*P-value*
Academic Performance	-1.247	0.020
GSE	0.520	0.001

Table 4: Test Anxiety and Academic Performance

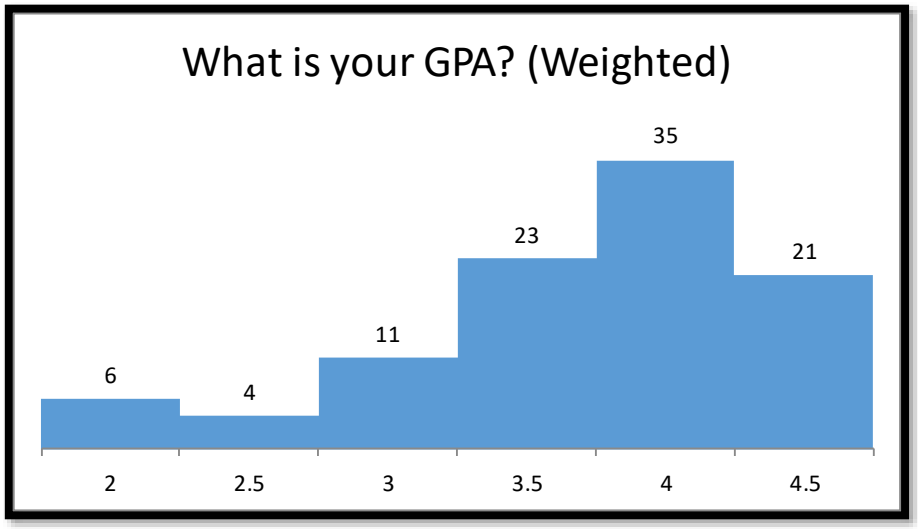
	Coefficients	*P-value*
Academic Performance	12.169	0.000
Test Anxiety	0.042	0.088

Grade Point Average (GPA)

Student's academic self-efficacy is the most influential factor on GPA (Ismail et.al). This high school is known for its academic achievement as a whole school. Among the participants,

approximately 90% of the respondents have a 3.0 or higher weighted GPA during the study. When analyzing the data 90% of the respondents will have a positive significance with self-efficacy and their GPA (Onyiezugbo).

Figure 1



With GPA raising the self-efficacy levels to a higher level this goes back to Onyeizugbo's point of having a positive relationship with the self-efficacy and academic performance (in this case, test anxiety). Proving once again, that better a student is at testing and in school they will have a positive reaction and not feel as much test anxiety as others would.

VI. Discussion

Onyeizugbo and Powers' studies are accurate when it comes to stating that the higher the self-efficacy and GPA, the less test anxiety that will be seen. In this case, it doesn't matter whether or not students have to many vigorous classes at the same time. Referring back to the hypothesis, it was predicted that there would be a positive relationship between self-efficacy and GPA. As well as a slight relationship between perceived self-efficacy and the idea of test

anxiety. It was seen that there was a significantly small difference for the correlation of self-efficacy and academic performance. With only a difference in p-value of about .001. This may have also been this way due to limitations of the study or survey. This could have accorded due to the difference in sample populations as well. In Onyeizugbo's study, 249 graduates were his sample size compared to this study in which they were only 100 respondents. In this study, however it seems there is a similar pattern in which there were more female than male taking the surveys. This could have also affected the results since gender may play a factor in that of a difference.

For the general test anxiety part of this study, it is important to take in consideration that no correlation was found between test anxiety and academic performance. In Powers' study he comes to the conclusion that test anxiety is a strong factor that contribute to this idea of self-efficacy and having the motivation to accomplish a goal. In this study, the test anxiety levels and worries were not as high and worry some as those in Powers' study this was also something that must be taken into consideration when thinking about why the results varied. In Powers' study was more anxiety arose because it was the General Records Examination which is really important as well. GPA and self-efficacy were also proven as a third indicator that the in order for GPA to go up students should have more self-efficacy. In that case, it is necessary to see that in Onyeizugbo's study he as well stated that the expectation is that there will always be a positive relationship with GPA and self-efficacy. Especially since in this study almost all students except for 10% are more likely to be more self-efficacy inclined due to their higher-grade point average.

Further Research

As school curriculums advance, subjects such as math, history and etc., do as well. Future researchers are encouraged to find a relationship between self-efficacy and the focus of one subject such as math. In this case, maybe future researchers are able to add on to this relationship that is continually coming to the attention of researchers. This will help enhance the purpose of further studies and identify factors that have a similar effect on self-efficacy and students currently in high school. It is recommended as well to make the students believe that the test will have an impact on them as students in order to make their test anxiety levels arise to in order for them to be evaluated effectively.

VII. Conclusion

To conclude, this study was conducted in order to seek whether or not general self-efficacy and GPA could cause test anxiety or relieve it in the students of a San Fernando Valley of Southern California high school. The overall idea of this study was to if students with better grades and higher academic rigor had a different behavioral change toward test anxiety. According to the data analyzed, self-efficacy is one of the factors to relieving test anxiety but does not heavily affect students at this specific high school. Although this is true, the hypothesis was accomplished, it was proven that GPA played an important role in the self-efficacy of the students.

Limitations that can be seen in this area of study is that the students did not engage in the questions as they should have been engaged. The responses may have been involved in a previous study and set of questions making the students not read thoroughly, losing their engagement to responding the question that were in the survey. There was not a specific subject that was focused on as well. Some implications that can be considered from test anxiety and the student’s motivation to well on the test (self-efficacy), is every student’s way of working on tests

is different. For example, negative influences of parental psychological control on their children's test anxiety affects their academic self-efficacy leading to a rise in test anxiety for students (Xu et.al). Not only this but students especially in the high school that the sample is taken from struggle with high levels of test anxiety. Students already have experienced this feeling yet motivations seem not to matter. Though there have been a wide variety of researchers that have looked into the topic of high school and test anxiety, gaps in the study also arise with the diversity in student's behavior. There have not yet been studies on high schools' students. Other studies have been found in different parts of the world. In this study, participants will be a large population of high school students and diverse mindsets that will vary with anxiety levels and tests.

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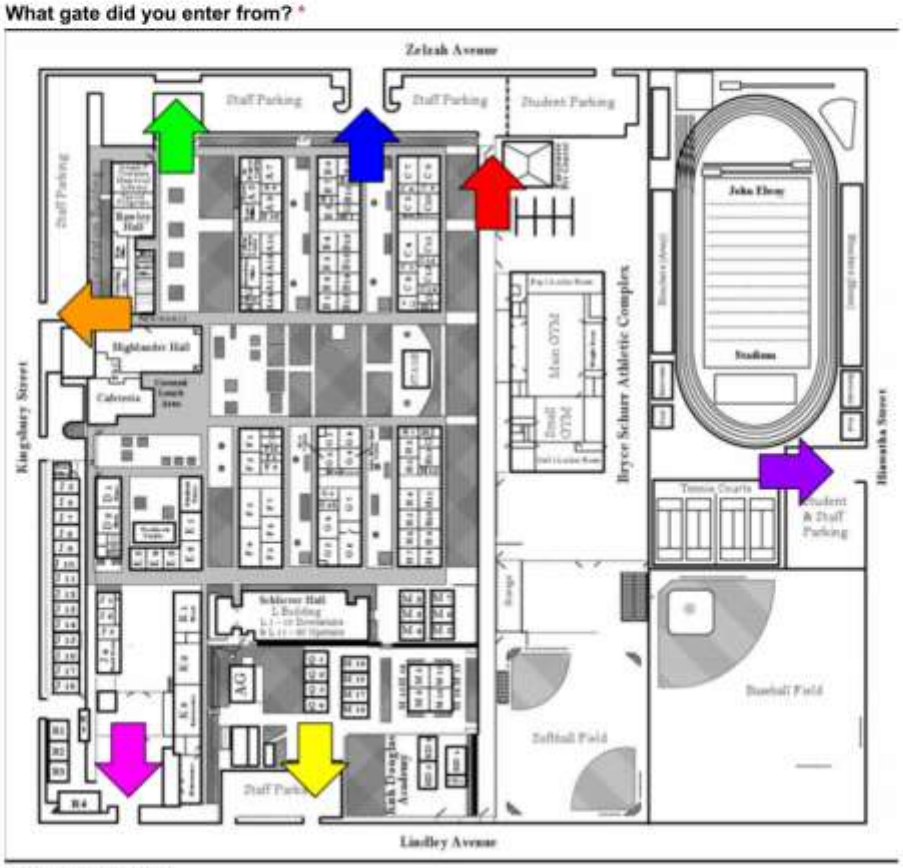
Addendum

1st Survey (My December 2018 Study)

Self-Efficacy & Test Anxiety

* Required

1. **What gate did you enter from?** *



Mark only one oval.

- Flagpole (Green)
- Boy's PE side (Red)
- Teacher Parking Lot (Blue)
- Girls PE Side Service Road (Yellow)
- Hiwatha Parking Lot (Purple)
- J Gate (Pink)
- Kingsbury (Main Entrance) (Orange)

2. **What is your gender ?** *
Mark only one oval.

- ◯ Female
- ◯ Male

3. **What is your age?** *
Mark only one oval.

- ◯ 14
- ◯ 15
- ◯ 16
- ◯ 17
- ◯ 18

4. **What grade are you in?** *
Mark only one oval.

- ◯ 9th
- ◯ 10th
- ◯ 11th
- ◯ 12th

5. **What is your GPA? (Weighted)** *

_____

6. **What is your race/ethnicity?** *
Mark only one oval.

- ◯ Hispanic
- ◯ White
- ◯ Asian
- ◯ Filipino
- ◯ African American
- ◯ Other: _____

General Self-Efficacy

1=Not at all true, 2= Hardly true, 3= Moderately true, 4=Exactly true

7. **I can always manage to solve difficult problems if I try hard enough..** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

8. **If someone oppposes me, I can find the means and ways to get what I want..** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

9. **It is easy for me to stick to my aims and accomplish my goals...** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

10. **I am confident that I could deal efficiently with unexpected events...** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

11. **Thanks to my resourcefulness, I know how to handle unforseen situations..** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

12. **I can solve most problems if I invest the necessary effort....** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

13. **I can remain calm when facing difficulties because I can rely on my coping abilities....** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

14. **When I am confronted with a problem, I can usually find several solutions...** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

15. **If I am in trouble, I can usually think of a solution...** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

16. **I can usually handle whatever comes my way...** *
Mark only one oval.

	1	2	3	4	
Not at all	◯	◯	◯	◯	Exactly true

Start this form over.

Test Anxiety

5= extremely always true, 4= highly usually true, 3= moderately sometimes true, 2= slighty seldom true, 1= not at all never true

While filling these questions out, try to keep in mind an upcoming test that you are worried about.

17. **The closer I am to a major exam, the harder is it for me to concentrate on the material.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

18. **When I study, I worry that I will not remember the material on the exam.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

19. **During important exams, I think that I am doing awful or that I may fail.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

20. **I lose focus on important exams, and I cannot remember material that I knew before the exam.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

21. **I finally remember the answer to exam questions after the exam is already over.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

22. **I worry so much before a major exam that I am too worn out to do my best on the exam.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

23. **I feel out of sorts or not really myself when I take important exams.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

24. **I find that my mind sometimes wanders when I am taking important exams.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

25. **After an exam, I worry about whether I did well enough.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

26. **I struggle with writing assignments, or avoid them as long as I can. I feel that whatever I do will not be good enough.** *
Mark only one oval.

	1	2	3	4	5	
Not at all never true	◯	◯	◯	◯	◯	extremely always true

Test Anxiety Continued...

27. **When in this month is your next big exam that you are worried about? (Date, Subject, Period)** *

Thank you for taking this questionnaire! (PLEASE READ BELOW)

But you are not done yet! You are gonna be sent another short set of questions after you have taken the big test that you stated above. Enter your email below!!! Once you have COMPLETED the second set of questions your name will be entered to a raffle to win STARBUCKS GIFT CARDS or FREE CANDY. (Your name will only be entered if you complete both questionnaires!).

28. **What is your email?**

2nd Survey (My December 2018 Study)

Self-Efficacy and Test Anxiety

Keep in mind the test that you have just taken that you had stated in the last set of questions when answering the following ...

Your email address (**g31349@student.ghchs.com**) will be recorded when you submit this form. Not **g31349**? Sign out
* Required

Emotional Test Anxiety

1= Strongly Agree, 2= Agree, 3= Disagree, 4=Strongly Disagree

1. **While taking the test I had anuneasy, upset feeling.** *
   Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

2. **I felt very jittery when taking the test.** *
   Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

3. **Even when I'm well prepared for a test, I feel very nervous about it.** *
   Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

4. **I'll start feeling uneasy justbefore getting my test scoresback.** *
   Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

5. **During the test I felt very tense.** *
   Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

6. **I felt very panicky when I took the test.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

7. **I felt my heart beating very fast during the test.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

Worry Test Anxiety

1= Strongly Agree, 2= Agree, 3= Disagree, 4=Strongly Disagree

8. **Thinking about the scores I'd get interfered with my work on the test.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

9. **I froze up on the test.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

10. **During the test I found myself thinking about whether I'llget into college.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

11. **The harder I worked at takingthe test, the more confused I got.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

12. **Thoughts of doing poorly interfered with my concentration on the test.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

13. **I seem to defeat myself while working on tests.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

14. **During the test I found myself thinking about the consequences of failing.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

15. **During the test I got so nervous that I forgot facts I really knew.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

Other (Test Anxiety)

1= Strongly Agree, 2= Agree, 3= Disagree, 4=Strongly Disagree

16. **I felt unsure and tense while taking the test.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

17. **I wish examinations like the one I took did not bother me so much.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

18. **During the test I was so tense that my stomach got upset.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

19. **After the test was over I tried to stop worrying about it,but I just couldn't.** *
Mark only one oval.

	1	2	3	4	
Strongly Agree	◯	◯	◯	◯	Strongly Disagree

Thank you now you have completed everything!!!

If you have completed both surveys!! Congrats! Your name will definitely be entered into raffle to win STARBUCKS GIFT CARDS and FREE CANDY!! OR MAYBE EVEN BOTH! I will be sending out emails to those who are the winners. Thank you so much!