

# Test anxiety, self-efficacy and academic performance among senior three students: Basis for a psychological counseling program

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ISSN: 2243-7681  
Online ISSN: 2243-769X

OPEN ACCESS

Received: 18 June 2023

Revised: 20 July 2023

Accepted: 24 July 2023

Available Online: 15 August 2023

DOI: 10.5861/ijrsp.2023.2002

## Abstract

This study described the socio-demographic profiles of Chinese Senior Three students in terms of their sex, age, nationality, if only child or not, mother's and father's educational level, parent's marital status, and their family atmosphere and its relationship, measured respondents test anxiety, self-efficacy, and academic performance; tested differences of the three variables when grouped according to their profile; established possible correlation among the three variables; and proposed the enhancement program. Based on the results of the study, there was an almost equal number of male and female respondents, age is mostly 13, Han nationality, only child whose father's and mother's educational levels are both College degree or above, complete marital status of parents and have a good family atmosphere. The respondents generally have high test anxiety, moderate perceived self-efficacy, and average academic performance in Language (Chinese), Mathematics and English. Test anxiety is influenced by sex, father's educational level, marital status of parents and family atmosphere while self-efficacy is influenced by nationality, being only child, parents' educational level, and family atmosphere. Chinese and English Language academic performance are influenced by parents' educational level, but mother's educational level also influences academic achievement in Mathematics. Test anxiety was highly correlated with self-efficacy of the respondents. The enhancement of the existing guidance and counseling program that could help and guide students alleviate their test anxiety and increase their self-efficacy so as to improve their academic performance was proposed.

**Keywords:** test anxiety, self-efficacy, academic performance

## **Test anxiety, self-efficacy and academic performance among senior three students: Basis for a psychological counseling program**

### **1. Introduction**

Middle school stage is known as the early youth stage. From the physical point of view, the age and body of middle school students have reached the best state, which is the peak period of physical health function. From a psychological point of view, in middle school, psychology is becoming more and more mature, and it began to be rich in the adult spirit, began to take responsibility, and was rich in harvest, and began to achieve achievements. Compared with junior middle school, middle school students have less sense of resistance and extreme behavior, and their world outlook and outlook on life begin to become adults. At the same time, due to the expanding space for life and learning, they may more often face various challenges, and experience the inner conflict and pressure. Since ancient times, examinations have been the most important thing in the student stage. At the same time, with the more and more fierce social competition, college examination has become the most important concern for almost all middle school students.

In the daily study, students need to face a wide variety of tests and large and small tests, but also face the excessive demand pressure from peers, teachers, parents, the whole society and even their own children. Too much pressure and anxiety make some students usually have good academic performance, but it is always difficult to get the ideal results in the exam. No matter how hard they try, they cannot make significant progress in the exam. Their grades go up and down, even at critical moments. The exam is the touchstone for students' study. Most students are nervous, worried and even afraid in the exam, which leads to they cannot prepare for the exam, cannot play normally, and cannot respond rationally after the exam.

The purpose of learning should be to develop people's intelligence, cultivate people's moral character, enrich people's mind, exercise people's thinking, so that students can apply the knowledge and theory to practice, and make more contributions to the country and society. Learning should be a pleasant thing, but the current talent selection is measured by the results, the entrance examination: college entrance examination, college entrance examination, if continue to study also have to take the postgraduate entrance examination, doctoral examination. In this examination environment of the whole society, the long-term heavy examination burden makes the students have the wrong motivation to learn. At present, most students study only to go to school, good grades can enter a good university, graduation from a good university can find a good job.

Although schools, teachers and parents have been aware of test anxiety, the widespread lack of understanding of ways to ease exam anxiety is counterproductive. How to use the right way to reduce test anxiety is a difficult problem for parents and teachers? Therefore, it is necessary to strengthen the attention to the mental health of middle school students, understand the causes of examination anxiety, study the countermeasures for middle school students' examination anxiety, effectively improve the psychological quality of middle school students, help them to avoid the negative impact of examination anxiety, and study and test smoothly.

Due to the increasingly fierce competition in modern society, the requirements for entering a university have also become increasingly fierce. In China, "one examination for life" college entrance examination mode is implemented, students facing the pressure of the college entrance examination, in the psychological function is not fully matured, their mental health level has been tested, in order to avoid the occurrence of tragic events. With these, school administrators, parents and society in general should pay enough attention to the mental health level of senior three students. As students preparing for the college entrance examination, most students will pay close attention to their academic performance. It is not only their biggest concern, but also the focus of their parents and school teachers.

Test anxiety is due to the serious psychological problems caused by the exam. Its conceptual definition refers to the negative and negative emotions of individuals who are highly worried about their own self-esteem damage due to excessive tension in the exam. It is highly destructive to the physical and mental health of individuals, especially in the long-term test anxiety of individuals, not only prone to nervous, fear, irritable, depression and other mental breakdown phenomenon, their cognitive level, emotional and psychological quality, personality as well as their self-efficacy will suffer a certain degree of damage.

The term self-efficacy was generated in the Bandura self-efficacy theory, and is used to describe the performance of self-efficacy in the field of learning. First acts as one of the important mediating cognitive factors in the human motivational process, and second, it is an important part of the self-factor, which can play a positive and negative regulatory role in the motivational process. So some scholars mentioned that high self-efficacy will affect as a students' personal investment in learning, affect their learning enthusiasm and patience, learning strategy formulation and application, as well as in the face of challenges and opportunities of subjective attitude and emotions, based on this, some people will self-efficacy for academic performance "predictor".

The term self-efficacy was first introduced by Bandura in his article, *Self-efficacy: A Comprehensive Theory of Behavioral Change*, and then enriched the concept of self-efficacy in his report, *The Mechanism of Self-efficacy in Human Behavior*. Bandura has conducted theoretical exploration and empirical research for nearly 20 years on self-efficacy. Bandura has divided self-efficacy into three aspects: task-specific self-efficacy, general self-efficacy, and domain efficacy. As there are still differences in the existing research methods and theoretical construction, and the cognition of different experts varies in different fields, the current definition of self-efficacy is not uniformly explained.

In China, self-efficacy is the subjective judgment and evaluation of students' learning ability to successfully complete their learning tasks. Also divided his self-efficacy into two dimensions: learning ability and learning behavior. Learning ability refers to the ability of the students to obtain good academic performance, successfully complete their studies, and prevent test failure; Learning behavior refers to the judgment of students on whether they can use some learning methods to achieve their goals.

Since the birth of the school, more attention has been paid to academic performance. It has also been highly valued worldwide as one of the key factors to measure academic performance, is not only a key factor for teachers and parents to determine students' learning status, but also a key factor for students to position their learning status in the class. In a sense, one of the key factors to measure academic success is academic performance. Cultivating the successors of socialist modernization is the main task of Chinese education, and academic performance will be one of the important bases for talent selection. Schools, parents, students and the whole society will attach great importance to academic performance. For example, the United States, Japan and South Korea all attach great importance to academic performance. The most troublesome thing for middle school students is their academic problems, and they especially want to improve their academic performance.

Students' academic performance is the degree and level that students have reached in their moral, intellectual and physical aspects, and also reflects the situation of school education and teaching to a certain extent. It is an indicator of education evaluation. In ancient times, study was generally understood as the ability to learn. "Mozi is not Confucianism": "Fu study benevolence and righteousness, all to govern people, small to govern officials. "The Biography of Qiao Xuan in the Book of the Later Han Dynasty:" When he could not study hard, Xuan trained alone, and all his children studied scriptures frequently." Southern History Ren Fang Biography ":" less familiar with school, very home. "Now the definition of academic performance can be divided into broad and narrow sense. In a broad sense, academic performance refers to the overall quality level of students.

Test anxiety, self-efficacy, and academic performance are all important factors that can affect a student's success in school. Test anxiety is a feeling of worry, nervousness, or fear that can interfere with a student's ability to perform well on tests. Self-efficacy is a person's belief in their own ability to succeed in a particular task.

Academic performance is a student's overall grade point average or ranking in their class.

Research on test anxiety, self-efficacy, and academic performance can help many people, especially those in academic settings, to understand how these factors interact and how they can affect a student's success in school. For example, research has shown that students with high test anxiety are more likely to experience academic difficulties, such as lower grades and increased absences (Putwain, & Symes, 2018). Additionally, research has shown that students with high self-efficacy are more likely to achieve academic success, even in the face of challenges (Luo et al., 2018).

By understanding the relationship between test anxiety, self-efficacy, and academic performance, the researcher was able to develop an enhancement program of the existing guidance and counseling program of the middle school where the respondents are currently studying. This program could help these students and others who are struggling in these areas as well as the teachers of these students. Overall, research on test anxiety, self-efficacy, and academic performance is important because it can help everyone to identify students who are at risk for academic difficulties and develop interventions to help them succeed.

**Objectives of the Study** - This study aimed to investigate the relationship existing among test anxiety, self-efficacy, and academic performance of the senior three students towards the enhancement of the existing guidance and counseling program of the middle where the students are studying. Specifically, it described the socio-demographic profiles of Chinese Senior Three students in terms of their sex, age, nationality, if only child or not, mother's and father's educational level, parent's marital status, and their family atmosphere and its relationship, measured respondents test anxiety, self-efficacy, and academic performance; tested differences of the three variables when grouped according to their profile; established possible correlation among the three variables; and proposed the enhancement of the existing guidance and counseling program that could help and guide students alleviate their test anxiety so as to improve their academic performance.

## 2. Methods

**Research Design** - The paper used a descriptive survey method. The descriptive survey method is to collect, read, analyze and sort out literature related to test anxiety, self-efficacy and academic performance through the Internet, journals, books and other ways to understand the concept of research variables, related theories, measurement methods and the latest research results. "Test anxiety test" and "self-efficacy scale" were used respectively to test, and the data were recovered and analyzed. Discuss the relationship between the three. Propose intervention programs and plans.

In this method, the researcher collected relevant literature on test anxiety, self-efficacy, and academic performance through the Internet, journals, books and other informative and scholarly printed materials. The questionnaires were employed as main gathering tools in obtaining quantitative data from the surveyed respondents. For academic performance, final grades of students were obtained from the middle school Office of Academic Affairs. In studying the three variables, description of the participant's profile was described as well as the type of the test anxiety experienced by them, their self-efficacy and academic performance. Likewise, differences of the three variables when grouped according to their profile was determined and explored the relationship among the three.

**Participants of the Study** - From the total of 1,700 Senior Three students in the middle school situated in No.80 Middle School of Zhengzhou City, Henan Province, only 500 of them were randomly selected. Due to various reasons such as the outbreak of the global pandemic, the researchers adopted the form of random questionnaire for network distribution. This study adopts the method of overall sampling to randomly select students in the third grade. There are no requirements on gender, nationality, whether they are the only child, parents' education level, parents' marital status, family atmosphere, academic performance, anxiety or confidence. A total of 500 questionnaires were randomly distributed in this survey, 23 invalid questionnaires with incomplete data or obvious reaction tendency were collected and eliminated, and 477 valid questionnaires were collected,

with effective questionnaire recovery of 95.4%.

### *Measures*

**Test Anxiety Scale (TAS).** This study used the TAS compiled by the University of Washington psychologist Irwin G. Sarason (1999), which is one of the most widely used test anxiety scales. Test Anxiety Scale (TAS), which belongs to the second-grade score self-rating scale of "yes or not". The "yes" score is 1, and the "no" score is 0, but in the scale is 3,15, 26, 27, 29,33, these 6 questions belong to the reverse score "yes" score is 0, and the "no" score is 1. The TAS comprises 37 questions, and each question has two options: yes, worth 1 point, and no, worth 0 points. The statistical total score of the test anxiety scale was to add the scores of all 37 items. Newman suggested in 1996 that scores below 12 were lower levels of test anxiety; scores from 12 to 20 were moderate anxiety, and scores above 20 were higher anxiety. In other words, a student score above 20 indicates a higher level of test anxiety, and a student below 12 indicates a lower level of test anxiety.

A scientific and effective assessment tool is needed for the in-depth study of test anxiety. At present, foreign research achievements in the field of test anxiety measurement tools have been quite significant (Wang Shuai, 2018) pointed out in the Review of Research on Test Anxiety that there have been significant achievements in the research development of scale abroad. Among the more famous scales are: in 1952, Manderly and Sarazen developed the first test anxiety Self-Report Questionnaire (TAQ); Test Anxiety Scale (TAS) developed by Sarason in 1978; Test Anxiety Scale (TAI) developed by Spielberger in 1980; The Cognitive Test Anxiety Scale developed by Cassidy in 2002 and other well-known questionnaires to measure test anxiety. It can be known from the literature of the past two decades that the compilation of the questionnaire about test anxiety in China is still relatively small, and mainly involves the translation and revision of foreign scales.

The earliest test anxiety scale in China is the Test Anxiety Scale (TAI) compiled by Sarason introduced by Ling Wenquan (1985), and it is used to measure the current situation of test anxiety of Chinese college students. In 1989, Chen Yongsheng introduced Tanyan GAT scale into China. In 1993, Wang Shixi et al. introduced Zung's self-assessment of anxiety. In 1995, Wang Caikang introduced and translated Divine J.H. and Kylen D.W. A self-examination checklist for test anxiety; In 2001, Wang Caikang introduced test anxiety Scale (TAS) into China for the first time and tested its reliability and validity. In 2019, Qili et al. revised the test anxiety Scale for children. In 1990, Zheng Richang developed the test anxiety diagnostic scale. In 2001, Tian Bao developed the test anxiety questionnaire; In 2018, Bai Lu developed the Trait Test Anxiety Scale for college students. To sum up, most test anxiety scales used in China are imported from others, among which, Test Anxiety Scale (TAS) compiled by Sarason is currently the most used scale to measure test anxiety in China. And the compilation of test anxiety scale is also in constant exploration and development.

Test of the validity of the questionnaire: 3 experts were invited to test the validity of the questionnaire in this study, including 2 experts with intermediate professional titles and 1 expert with senior professional titles. The results showed that all the experts believed that the design of the questionnaire was reasonable and could be investigated. Test of questionnaire reliability: In order to ensure the reliability of questionnaire results, 100 students in the school were re-tested with questionnaires 15 days after the first questionnaire was issued, and the results of the two questionnaires showed a high degree of consistency. This proves that the survey results are real and credible.

**General Self-Efficacy Scale (GSES).** At present, general self-efficacy is often measured by the general self-report method in the form of a scale. Current scales for measuring general self-efficacy usually use General self-efficacy scale (GSES) compiled by German psychologists Schwarzer et al. (1997). This scale uses a 4-point scale to measure individuals' overall self-efficacy in the face of different goals and tasks, with 10 items. After the concept of general self-efficacy was introduced into China, Chinese scholars Caikang et al. (2001) translated and revised the GSES. The revised scale still maintains one dimension, with a total of 10 items. Using the 4-point scoring method, the higher the individual score, the higher the level of general self-efficacy. This scale is widely used in China to measure the overall self-efficacy of individuals in the face of different goals and tasks. In this

study, the revised GSES Caikang et al. (2001) were selected on the basis of considering localization and the characteristics of adolescent psychological development and other practical factors.

Test of the validity of the questionnaire: 3 experts were invited to test the validity of the questionnaire in this study, including 2 experts with intermediate professional titles and 1 expert with senior professional titles. The results showed that all the experts believed that the design of the questionnaire was reasonable and could be investigated. Test of questionnaire reliability: In order to ensure the reliability of questionnaire results, 100 students in the school were re-tested with questionnaires 15 days after the first questionnaire was issued, and the results of the two questionnaires showed a high degree of consistency. This proves that the survey results are real and credible.

**Academic Performance.** This study collected the final exam scores as the evaluation index of academic performance of Senior Three Students from SY 2021-2022. This study includes the monthly test scores of junior high school students in September 2022. The subjects are Chinese, math and English.

**Data Gathering Procedure** - In the stage of determining the research topic of the paper, the researcher determined the scope of the topic by reading a large amount of literature. Combined with their own work experience and understanding of the middle school students, and then seek the thesis advisor's approval and advice. Under the teacher's patient guidance, the research topic was determined. The researcher then systematically reviewed the research status of test anxiety, self-efficacy and academic performance at home and abroad to collect more information about the variables of the study. After understanding better, the research variables, the researcher selected the scale suitable for this paper based on a large number of literature reviews. In this study, 3 experts were invited to test the validity of the questionnaire, including 2 experts with intermediate professional titles and 1 expert with senior professional titles. The results show that all the experts agree that the questionnaire design is reasonable and can be investigated.

Out of 1,700 senior three students at No. 80 Middle School in Zhengzhou, Henan Province, only 500 were randomly selected due to various reasons such as the outbreak of the global pandemic, the researchers adopted the form of random questionnaire for network distribution. In this study, the whole sampling method was adopted, and the third-grade students were randomly selected. There are no requirements for gender, nationality, being an only child, parental education, parental marital status, family climate, academic performance, anxiety or self-confidence. Conduct a questionnaire survey on tested students to obtain their general data. Test Anxiety scale (TAS) compiled by Sarason and General self-efficacy scale (GSES) compiled by Schwarzer can measure test anxiety and self-efficacy of Grade 3 students. The academic performance of students in the monthly examination in September 2022 will be obtained by the academic Affairs Office of the school. A total of 500 questionnaires were randomly distributed in this survey, 23 invalid questionnaires with incomplete data or obvious reaction tendency were recovered, and 477 valid questionnaires were recovered, with effective questionnaire recovery of 95.4%. In order to ensure the reliability of the questionnaire results, 100 students were re-tested 15 days after the first questionnaire was issued, and the results of the two questionnaires showed a high degree of consistency. This proves that the survey results are authentic.

Using the SPSS statistical tools for data entry processing, the researcher analyzes the gathered data with the help of the assigned statistician. When the analyzed data were handed to the researcher, they were further analyzed to interpret the current situation of test anxiety and self-efficacy of Grade three students, and the relationship between them and their academic performance, and put forward constructive plans. Finally, the researcher sorted out the above research and drew the research conclusions and recommendations for future research.

**Ethical Considerations** - In this study, we put more emphasis on the moral aspect. When conducting research and other tasks, the researchers will state specific goals to the subjects, as well as voluntary and confidential principles. Informed consent was signed before the beginning of the study, and only after the consent of the subjects could the actual study continue. In addition, during the data collection, the researcher

formulated and strictly implemented the questionnaire in accordance with the requirements to ensure that there was no leakage. After that, the researchers could give gifts back to the subjects to avoid feeling unappreciated and exploited. At the same time, all the data were strictly kept and properly stored according to the number, and any content that could identify the subject was removed after the paper was written.

**Data Analysis** - In this study, the reliability test vs. descriptive statistics of the data collected from the questionnaire were performed using SPSS26.0 software. Frequency and percentage were used in describing the profile of the respondents whereas mean and standard deviation were utilized in determining the test anxiety, self-efficacy and academic performance of the senior three students. Also, analysis of variance (ANOVA) was employed in measuring the differences of the three variables when grouped according to their profile, and lastly, the Pearson r correlation using alpha level of 0.05 was used in correlating test anxiety, self-efficacy, and academic performance of the respondents.

### 3. Results and Discussion

**Table 1**

*Test Anxiety of the Respondents*

Items	Weighted Mean	Interpretation
Test Anxiety	27	High Test Anxiety

Legend: <12=low test anxiety; 12 to 20 =moderate test anxiety; >20 high test anxiety

Table 1 shows the test anxiety levels of middle school students under the test anxiety scale. From the data, the minimum value of test anxiety is 0, the maximum value is 37, but the obtained mean of the respondents was 27 which can be interpreted as having high test anxiety. According to the manual of TAS, the score below 12 is the low level of test anxiety, 12 to 20 is moderate, and above 20 is a higher level.

From the data, middle school students generally feel a considerable degree of discomfort caused by having to take the exam. A high score on the TAS indicates that a person experiences a great deal of anxiety about tests. This can manifest as worry about doing poorly, feeling physically ill, or having difficulty concentrating. People with high test anxiety may also avoid taking tests altogether or procrastinate on studying. High test anxiety can have a negative impact on academic performance. People with high test anxiety may perform worse on tests than they would if they were not anxious. They may also be more likely to drop out of school or choose less challenging academic paths. The result of this study supports the previous study of Zhang, & Liu (2019) who said that 40.2% of middle school students in China had moderate to severe test anxiety.

**Table 2**

*Self-efficacy of the Respondents*

Items	Weighted Mean	Interpretation
General Self-Efficacy	24.2515	Moderate perceived self-efficacy

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 2 shows the level of self-efficacy among middle school students generally at a moderately high level. The self-efficacy scale of 477 middle school students was a single dimension scale. The self-efficacy scale had 10 questions, with a total of 40 points wherein higher scores indicate higher perceived general self-efficacy, lower scores indicate lower perceived general self-efficacy. A score of 24 on the GSE is considered to be moderate perceived self-efficacy which suggests that a person may have believe in their ability to succeed in new or challenging situations but still has doubts about it. They may also be more likely to give up easily in the face of difficulties (Scholtens, & van der Ploeg, 2018).

The findings of this study contradict the previous research results saying that Chinese students generally have high self-efficacy (Ding & Wang, 2022). However, there are some subgroups of students who may have lower self-efficacy, such as students from rural areas, from ethnic minority groups and those with learning

disabilities (Luo et. al., 2018).

**Table 3**

*Academic Performance of the Respondents*

Subjects	Weighted Mean	Std Dev	Interpretation
Language	83.3497	35.67856	Average
Mathematics	78.8674	39.27739	Average
English	85.5752	41.02694	Average

Table 3 shows the relevant content of academic performance. From the analysis of the chart, it can be concluded that the weight of the Language (Chinese) course is 83.3497, and the interpretation of this course is average. The weight of mathematics on the other hand is 78.8674, and the interpretation of this course is also average. The weight of English course is 85.5752, and the interpretation of this course is average. The meaning of average academic performance in Chinese language, Mathematics and English can vary depending on the specific grading scale and standards used by the school or educational institution. However, in general, an average academic performance in Chinese language would typically be a grade of C or B-. This means that the student has mastered the basic concepts of the Chinese and English languages and Mathematics but may still need some additional support in certain areas.

The findings of this study support the conclusions made by Ding & Wang, (2022) that Chinese students generally perform very well in Chinese language assessments. For example, in the 2018 PISA assessment, Chinese students scored an average of 596 in Chinese language proficiency, which is significantly higher than the OECD average of 500. Cai et al., (2019), Li & Wu, (2020), and Zhang & Li, (2021) also suggested previously that Chinese students consistently perform well in mathematics, even when compared to students from other countries. For example, in the 2018 PISA assessment, Chinese students scored an average of 591 in mathematics, which is significantly higher than the OECD average of 489.

Lastly, Cheng & Wang (2022) found that Chinese students generally perform well in English language assessments, but they may still struggle with some aspects of English proficiency, such as speaking and writing. For example, in the 2018 PISA assessment, Chinese students scored an average of 539 in reading literacy, which is significantly higher than the OECD average of 497. However, they scored an average of 483 in writing proficiency, which is below the OECD average of 515.

**Table 4**

*Relationship between Test Anxiety, Self-Efficacy and Academic Performance*

Variable(X)	Variable (Y)	Pearson-r value	p-value	Interpretation
Test Anxiety	Self-Efficacy	.323**	0.000	Highly Significant
	Language	-.070	.129	Not Significant
	Mathematics	-.053	.247	Not Significant
Self-Efficacy	English	-.013	.770	Not Significant
	Language	-.024	.596	Not Significant
	Mathematics	.022	.635	Not Significant
	English	.006	.892	Not Significant

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Table 4 shows that test anxiety is highly significant with self-efficacy, but not with Chinese, math and foreign language scores nor did self-efficacy is related to Chinese, math and foreign language scores. This indicates that test anxiety and self-efficacy has a unidimensional relationship, that is, the higher the self-efficacy the higher the tendency to experience test anxiety among Chinese middle school students.

Unlike the previous research saying that test anxiety and self-efficacy are negatively correlated (Roick & Ringeisen, 2017) these findings support other research proving that the two variables are highly related which each other. It was previously found out that test anxiety and self-efficacy were positively correlated among undergraduate students in Portugal (Maier et al., 2018), among medical students in Turkey (Asayesh et al, 2018),



and among high school students in Iran (Wang et al, 2023).

**Table 5**

*Enhancement program to alleviate test anxiety and increase self-efficacy to improve academic performance*

KRA/ Program	Objectives	Strategies/ Intervention	Persons Involved	Success Indicators
High Test Anxiety	-Relaxation training  -Confidence training  -Diet training	-Breathing method, suggestion method, representation method and music method, etc., make the muscles of the human body relax step by step, and make the brain gradually quiet  -Try anxious students to self-express normal emotions and confidence  Appropriate supplements of vitamins and minerals, moderate drinking water, avoid foods with high sugar content, such as fruit juice, dried fruit and so on	Senior Students, Counselors, Parents	-Regulate the excitement level of the central nervous system, relieve tension, and enhance the brain's ability to control and dominate the whole body  -Those negative self-perceptions are reversed in order to weaken or eliminate their test anxiety  Stress leads to a lack of VC, VE, B vitamins and magnesium in the body, and by supplementing these vitamins and minerals, stress can be reduced.
Moderate Self-efficacy	-Mindfulness	- Challenge negative thoughts and beliefs  - Focus on students' strengths and accomplishments  - Develop a growth mindset  - Increase self-awareness	Senior Students, Counselors, Parents	-Enhance the strength of the mind, imperceptibly enhance self-efficacy  -Positive external feedback can affect the inner state and positively affect the student's mood  -Stop being submissive and dare to speak to others.  -This kind of development, after a few times, you can cope with it.
Academic Performance	-Stimulate learning interest  -Examination and Monitoring	-Create situations that interest students in learning and inspire dreams  -In the form of homework assigned by the teacher, students do preview work under the supervision of their parents  -The test was conducted in the form of weekly test and monthly test	Senior Students, Counselors, Parents	-From the external learning pressure to learning motivation, change passive learning to active learning.  -When students study in the classroom, they can better improve the learning effect.  -The mastery of knowledge is firmer and test scores are improved.

According to the analysis of test anxiety, self-efficacy and academic performance, the psychological counselling project was planned. It is mainly carried out for the above three variables.

For students with exam anxiety, the main points needed to participate in the crowd are students, which is mainly divided into three aspects. The first aspect is relaxation training. In relaxation training, breathing method, suggestion method, representation method and music method are used to relax the muscles of the human body step by step and make the brain gradually quiet. The result to be achieved is to regulate the excitement level of the central nervous system, relieve tension, and enhance the brain's ability to control and dominate the whole body. The second aspect is self-confidence training, which is used to express normal emotions and self-confidence for students with exam anxiety. Through language, anxious people can relieve their own anxiety. To achieve those negative self-awareness is reversed, thereby weakening, or eliminating their exam anxiety. The third aspect is the training of diet, using appropriate supplements of vitamins and minerals, moderate drinking water, avoiding foods with high sugar content, such as fruit juice, dried fruit and so on. The result is to relieve

the lack of VC, VE, B vitamins and magnesium in the body caused by stress. By supplementing these vitamins and minerals, stress can be reduced.

For students with low to moderate self-efficacy, mindfulness is mainly for these students. Mindfulness is the practice of paying attention to the present moment without judgment. It can be used to increase self-efficacy by helping students to challenge negative thoughts and beliefs. Mindfulness can help students to become aware of their negative thoughts and beliefs about themselves and their abilities. Once these thoughts are identified, they can be challenged and replaced with more positive ones. Mindfulness can also help students to focus on their strengths and accomplishments, rather than on their weaknesses and failures. This can help to boost self-confidence and self-efficacy. Also, it can help them develop a growth mindset. A growth mindset is the belief that one's abilities can be developed and improved through effort and practice. Mindfulness can help these students to develop a growth mindset by teaching them to see challenges as opportunities for growth and learning. Another thing that mindfulness could bring is an increased self-awareness, which can lead to a better understanding of their strengths and weaknesses. This can help students to set realistic goals and to develop strategies for achieving those goals. Lastly, mindfulness is also used to improve emotional regulation, which can lead to a decrease in anxiety and stress. This can free up mental resources that can then be used to focus on tasks and goals. A study by Tang (2018) and Zhang (2020) found that mindfulness training was associated with increased self-efficacy in a sample of adults with anxiety disorders.

For the academic performance component, the main participants are students, parents and teachers. It is mainly carried out in three aspects. The first aspect is to stimulate the interest in learning. The main use of this aspect is to create situations, make students interested in learning, stimulate dreams. Thus, the external learning pressure can be changed into learning motivation, and passive learning can be changed into active learning. The second aspect is to prepare in advance. In this aspect, it is mainly through the form of homework assigned by teachers, and under the supervision of parents, students do preview work. In order to achieve so that students in the classroom learning, can better improve the learning effect. The third aspect is examination. This part is mainly conducted in the form of weekly and monthly tests to promote students to review knowledge, so as to achieve a more solid grasp of knowledge and improve test scores.

#### **4. Conclusions and Recommendations**

There was an almost equal number of male and female respondents, age is mostly 13, Han nationality, only child whose father's and mother's educational levels are both College degree or above, complete marital status of parents and have a good family atmosphere. The respondents generally have high test anxiety, moderate perceived self-efficacy, and average academic performance in Language (Chinese), Mathematics and English. Test anxiety is influenced by sex, father's educational level, marital status of parents and family atmosphere while self-efficacy is influenced by nationality, being only child, parents' educational level, and family atmosphere. Chinese and English Language academic performance are influenced by parents' educational level, but mother's educational level also influences academic achievement in Mathematics. Test anxiety was highly correlated with self-efficacy of the respondents. The enhancement of the existing guidance and counseling program that could help and guide students alleviate their test anxiety and increase their self-efficacy so as to improve their academic performance was proposed.

Teachers may explore all possible avenues to obtain knowledge and skills like professional development workshops, conferences or further education and sustain their level of commitment through actively supporting activities of the organization. The teachers as well as the school administrators may also use the findings of this study to understand their students better and to be able to come up with a better school curriculum that addresses these concerns. The school administrators, counselors and teachers may evaluate the proposed enhancement program for reducing test anxiety and increasing self-efficacy among middle school children to help them improve their academic performance. The students and their themselves and their children better and its findings to understand better themselves and their children especially in terms of the experienced test anxiety, their

self-efficacy and academic performance. For future researchers, they may use the research findings as basis for their future endeavors related to the topic studied and may also use other tools and include a different set of respondents such as comparing the variables among students from different socioeconomic backgrounds.

## 5. References

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