# UNDERSTANDING THE INFLUENCE OF TEST ANXIETY ON THE ACADEMIC PERFORMANCE OF PUBLIC HIGH SCHOOL LEARNERS: A CONVERGENT PARALLEL APPROACH

#### IAN D. FULLIDO

#### **ABSTRACT**

This study aimed to explore the influence of test anxiety and academic performance of Public High School learners, using the mixed-methods design, an adopted questionnaire to gather the information that will answer research question in the quantitative phase was used. For the qualitative phase, the researcher interviewed seven public high school learners for Focused Group Discussion and 10 public high school learners students for in-Depth Interview. Different statistical tools were used such as: mean, standard deviation, frequency count and Pearson r. The results revealed that Public High School learners experienced moderate level of anxiety when taking the examinations. There were three academic subjects considered on this study namely: Math, English and Science. Based on the statistical results, English got the highest mean, described as approaching to proficiency: this means that the GPA of the learner was fairly good. Science gained an average mean described as moderate, Math gained an mean average likewise described as moderate. This means that the learners are in the approaching to proficiency level or in a moderate description in all three subjects. In the result of qualitative data, there were themes that emerged from responses of the participants such: struggling with cognitive skills, feeling of fear about failure and experiencing physical discomfort. The salient quantitative and qualitative findings were parallel with each other.

Keywords: Public high school learners, Pearson r, mixed method, convergent parallel design, Philippines.

#### INTRODUCTION

One of the most common anxiety types considered to be present among students, and considered as one of the most pervasive reactions that individuals have to stress, is test anxiety (Sarson & Sarson, cited in Burns, 2011). Furthermore the issue of poor academic performance of students has been of much concern to the government, parents, teachers and even students themselves. The quality of education not only depends on the teachers as reflected in the performance of their duties, but also in the effective coordination of the school environment. Thus the Department of Education mandated to create mechanism to improve academic performance of the learners.

In fact, it is unusual to find a student who doesn't approach a big test without a degree of anxiety. Many students experience some nervousness before, during or even after an exam. It is natural to feel some anxiety when preparing for and taking a test. Test anxiety can interfere when studying and one may have difficulty learning and remembering what one needs to learn for the test. Further, too much anxiety may block one's performance. One may have difficulty demonstrating what one knows during the test. In fact, Chapell et al. (2005) cited that test anxiety plays a significant role in academic settings and may prevent some students from realizing their fullest academic potential.

Everyone can experience physical, emotional, and cognitive symptoms if one has test anxiety. Some students have poor study habit and many have difficulty learning the lesson. They are unprepared for the test and do not possess necessary study habits and test-taking strategies.

Other students have problems demonstrating their knowledge in a test situation. Those students worry too much about their school performance and the consequence of the failure. Further, more anxiousness is evoked when a student believes that the evaluative situation, such as an assessment, exceeds his or her intellectual, motivational and social capabilities (Putwain, Woods & Symes, 2010). Most students experience some level of anxiety during an exam or even before and after an exam. That is why test preparations and conditioning are very important before taking the test to reduce the levels of anxiety, especially during examinations. However, when taken to extremes, it may produce unwarranted results.

One of the most threatening events that causes anxiety in students today is the test. When students develop an extreme fear of performing poorly on an examination, they experience test anxiety. A student with high test anxiety can fall behind academically because he or she is distracted and has impaired verbal working memory skills when anxious (Hopko, Crittendon, Grant, & Wilson, (2005). Anxious children often have to exert more effort to perform well because they're trying to manage their anxiety while executing a task (Owens, Stevenson, Norgate, & Hadwin, (2008).

Based on literature, test anxiety lowest academic performance and it is estimated that about 25.0% of primary and secondary school students in America, and around 10 million students suffered lower academic performance as result of test-anxiety (Hembree, 1988; Hill & Wigfield, 1984)

Furthermore, Anastasi and Urbina (1997) mentioned that text anxiety is a common reaction of examinees to testing situations which are stimulated by its ready visibility and detrimental effects on performance. They further stated that apart from examiner's behaviors, the examinees' activities produce emotional disturbance, fatigue or other handicapping conditioning. Furthermore, according to numerous research findings, test anxiety influences students' academic achievements (Culler & Holahan, 1980; Mull, 2016) and it impacts their cognitive functioning and emotional wellbeing (Berk & Nanda, 2006; Chapell et al., 2005; Cassady & Johnson, 2002; Diaz, 2001)

The problem of Test Anxiety has been experienced globally. The results in the United States revealed that test anxiety is positively correlated with GPA (Jing, 2007). Similar results were earlier found in the study by (Chapell et al.) among American students, wherein differences in GPA were a function of the level of test anxiety, with less anxious test takers showing higher GPA than their counterpart who experienced high anxiety.

Moreover .Test anxiety is a prevalent problem that can handicap a student's ability to perform well academically. In the United States, this is a predominant issue that affects nearly 35 percent of the college student population (Driscoll, Holt & Hunter, 2005). Furthermore Chapell, et al. (2005), carried out a study among 5,551 undergraduate and graduate students in Pennsylvania and Illinois and found a significant difference of academic achievement among three different levels (low, moderate, and high) of test—anxiety. For instance, students with low test-anxiety had higher academic achievement than students with moderate and higher test-anxiety. Similarly, students with moderate test-anxiety had higher academic achievement than students with higher test-anxiety.

It was also found that test anxiety is detrimental to performance (McCarthy & Goffin, 2005). Meanwhile, Sharma, Parnian, and Spielberger (1983) compared the test anxiety levels of Iranian (n = 160) and Indian (n = 160) secondary school and college students.

The results indicated that the Iranian students had higher levels of test anxiety than their Indian counterparts. Tricultural differences in the test anxiety levels among the Iranian, Indian and U.S. student groups were interpreted as some eastern students showing greater anxiety levels.

Moreover, In the Philippines, the study of Reyes & Castillo, (2015) revealed that test anxiety is considered a factor that affects the performance of students. They further specified that

students moderately felt test anxiety in mathematics which resulted in poor performance rating in Algebra and Trigonometry. Furthermore, the study of Felix (2013) revealed that students in the public elementary school experience a moderate level of anxiety, while few students experience extreme levels during the examinations.

Good academic achievement is very important not only to students and their parents, but also to the learning institutions. Test and examinations at all stages of education has been considered an important and powerful tool for decision making in our competitive society, with people of all ages being evaluated with respect to their achievement, skills and abilities (Rana & Mahmood, 2010).

With these scenarios, there is a need to conduct a study on the relationship of test anxiety and academic performance of students in Public Junior High School.

The researcher had observed that in other countries especially Iran, education can also become a burden to the country as low academic achievement is one of the major problems facing the families, society and government at large. As for Iran, the prevalence of low academic achievement among high school students was high. Hamidian (2006) reported that \$50 million were needed to solve problem of low academic achievement in Azerbaijan Province in Iran and estimated that the problem of academic achievement.

Up to this date, there were few literatures/studies have been conducted here in the Philippines, using mixed method on relationship of test anxiety and academic performance particularly in Public High Schools in a Philippine setting. Furthermore, this study determined the influence of test anxiety and academic performance among Public High School learners. Hence, this study would serve as valuable information in designing guidance program and counselling treatment plan in order to reduce the test anxiety of students. This study would also help the teachers and guidance counselor designed mechanism to improve academic performance of the learners.

To disseminate the findings of the study, the researcher will share this research to the public through paper presentation in the research forum in the institutional level, and similarly the paper will be published and made available throughout the Philippines so that this can be an important contribution to Department of Education and even in international level.

#### FRAMEWORK

This study is anchored on the Cognitive Theory of Anxiety by Beck, Emery, & Greenberg, 1985. According to Mathews & MacLeod, (1994), anxiety states are associated with the increased attention to threat cues and a greater likelihood of perceiving the threatening meaning of ambiguous events. Anxiety-disordered individuals have their attention captured automatically by threat-related cues and meanings (Matthews & Mackintosh, 1997).

Meanwhile, Jegedy (2007) reported that the basic causes of students' anxiety toward the learning of chemistry include: wide coverage of the syllabus, low awareness of career opportunities in the subject, lack of exposure to excursion and field trips, well-equipped laboratory, as well as poor teaching methods.

According to Social-Cognitive Theory, learning and outcome are affected by motivational processes like self-efficacy, control beliefs, goal orientations, anxiety, and task value (Schunk, 1989). Self-Efficacy Theory perceived self-efficacy influences and is in turn influenced by thought patterns, affective arousal, and choice behavior, as well as task performance (Bandura, 1986). Self-efficacy beliefs affect academic performance by influencing a number of behavioral and psychological variables.

#### **METHOD**

# **Research Design**

This study used convergent parallel mixed methods research design. According to Creswell (2013) this is a form of mixed methods design in which the researcher converges or merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. In this design, the investigator typically collects both forms of data at roughly the same time and then integrates the information in the interpretation of the overall results. Contradictions or congruent findings are explained or further probed in this design. Also in this design, the researcher merged one smaller form of data within another larger data collection in order to analyze different types of questions. Also, the key assumption of this approach is that both quantitative and qualitative data provide different type of information. This information is often in detailed views of participants qualitatively and scores on instruments quantitatively in which together yield results that should be the same.

### Respondents

#### Quantitative Phase

The participants of the study were the Grade 8 Junior High School students from the three Public Schools in Davao City. These students were having their third grading GPA in English, Math and Science. A total of 400 students responded to the quantitative questionnaire. The participants were selected through Total Population Sampling (TPS) technique. TPS is one of the purposive sampling techniques where the entire population that meet the criteria are included in the research being conducted (Etikan, Musa, & Alkassim, 2015).

#### Qualitative Phase

In this phase, same in the quantitative phase the Public High School learners were the participants for the qualitative phase. A total of 10 students were asked to join an in-depth interview and seven for focus group discussion. The participants were also selected through purposeful sampling technique. In this technique, the researcher selected people or site who can best help understand and had experienced Test anxiety (Creswell, 2013).

#### Instruments

#### Quantitative Phase

The researcher used an adopted questionnaire for quantitative analysis. The 10-item, 5-point Likert type Driscolls Westside Test Anxiety Scale in (2004) measures Performance Incapacity and Worry. Its validity was measured using the cognitive items of the instrument that are similar to those in the Cassady – Johnson (2001) and other familiar anxiety scales, and performance inmpairment items are similar to those on the Alpert – Haber (1960) Debiliated Anxiety Scale. Correlation between anxiety reduction was measured by the scale and improvements in test performance were used as the validation criteria. Subjects were from two diverse sample: 25 anxious college students, many on academic probation, and 34 anxious fifth grades students.

#### Qualitative Phase

An interview guide questionnaires was formulated and utilized for this qualitative approach. First and foremost this sought data from the lived experiences of the participants with regards to Test anxiety as they performed academic tests in Math, English and Science in school.

Second, the interview guide sought data about the lived experiences of the participants with regard to school academic performance in Math, English and Science. Lastly, this also

sought answers on how do the experiences of students shape the beliefs, attitude, and commitment to achieve good academic performance.

#### **Statistical Tools**

#### Quantitative Phase

The quantitative data was analyzed using weighted mean and regression analysis. The level of Test Anxiety and Academic Performance in English, Math and Science of students were analyzed. In identifying what particular variable significantly predicts the Test Anxiety of the Students, regression analysis was used.

#### Qualitative Phase

On the other hand, in qualitative data, thematic analysis or constant comparison was used in analyzing the thoughts obtained from the participants during in-depth interview and focus group discussion. According to Creswell (2013), this technique can be conducted inductively, deductively, or abductively. Usually, the procedure of this technique begins with tagging or deciphering the codes or concepts from the data set and similar concepts are categorized to form themes.

Moreover, in converging or merging the two data bases, the researcher used the side-byside comparison approach. In this approach, the researcher first reported the quantitative statistical results and then discussed the qualitative findings that either confirmed or disconfirmed the statistical result (Creswell, 2013).

#### **RESULTS AND DISCUSSION**

Presented in this chapter are the tabulated data, findings of the study, analysis and interpretation of the data obtained from the respondents. The quantitative and qualitative results, and the joint display of salient quantitative and qualitative findings are also discussed.

Table 1.1 Level of Test Anxiety

ANXIETY LEVEL	Mean	Standard	Descriptive
		Deviation	Rating
INCAPACITY	l	I	
1. The closer I am to a major exam, the harder it is for me to concentrate on the lesson.	3.69	1.14	High
4. I lose focus on important exams, and I cannot remember lesson that I knew before the exam.	3.39	1.30	Moderate
5. I finally remember the answer to exam questions after the exam is already over.	3.25	1.25	Moderate

6.I worry so much before a major exam that I am too worn out to do my best on the exam.	3.27	1.24	Moderate
8. I find that my mind sometimes wanders when I am taking important exams.	3.25	1.20	Moderate
10. I struggle with written assignments, or avoid doing them, because I feel that whatever I do will not be good enough. I want it to be perfect.	3.47	1.36	moderate
Incapacity Category mean	3.39	.71	Moderate
WORRY			
2. When I study for my exams, I worry that I will not remember the lesson on the exam.	3.40	1.17	Moderate
3. During important exams, I think that I am doing awful or that I may fail	3.60	1.13	High
7. Feel out of sorts or not really myself when I take important exams.	2.98	1.299	Low
9. After an exam, I worry about whether I did well enough.	3.49	1.24	Moderate
Worry Category mean	3.37	.86	Moderate
OVERALL ANXIETY	3.38	.77	Moderate

Tabulated data from Table 1.1 reveals an overall mean of 3.38, which is evaluated Moderate. An overall standard deviation of 0.78 established from the answers of the respondents in the survey indicates a small range of dispersion, which describes homogeneity in their perceptions. This result means that characterizing the two items the Incapacity and worry are moderately or sometimes true manifested in the public high school learners.

**Incapacity.** This indicator is contextualized as memory loss and poor cognitive processing experienced by the learners when taking examination. The category mean of 3.38 with descriptive rating of moderate indicates that test anxiety is sometimes experienced by the learner during test examination It is a solid evaluation as the five items describing Incapacity of test anxiety were all given moderate ratings. But it can be noted that the item expressing in difficulty to *concentrate on the lesson during taking the examination* with the High mean of 3.69. Equally assessed were items asserting that I finally remember the answer to exam questions after the exam is already over and I find that my mind sometimes wanders when I am taking important exams both with means of 3.25 with the description of moderate. This finding explains that the learner when taking important examination may have experience wander or they could not remember lesson on the examination. However the answers of the questions in the examination were remembered after the exam is over.

**Worry.** In this investigation, worry is a cognitive expression of concern about one's own performance that has direct detrimental effect to the academic performance to the learners. As seen in the table 1.1 the category mean is 3.38 which is equivalent to a descriptive rating of moderate. This only means that worry is moderately or sometimes experienced by the learners

when taking the examination. As seen in the table 1.1 the highest mean that described negative mental expression is *during important exams*, *I think that I am doing awful or that I may fail* with the mean of 3.60 with the description of high or always true. This means that the respondents are always thinking that they may do awful or they are afraid of failing the examination. on the other hand the lowest mean that is seen in the table 1.1 is *Feel out of sorts or not really myself when I take important exams* with a mean of 2.98 described as low or seldom. This means that respondents still manage their self when they experienced anxiety when taking the examination. The two items in the table 1.1 are when I study for my exams, *I worry that I will not remember the lesson on the exam and after an exam*, *I worry about whether I did well enough* with description of moderate. This means that the respondents experienced the feeling of worry that they might forget the lesson during the examination, likewise the respondents may feel worried that they did not do better on the examination.

Tabulated data from Table 1.1 reveals an overall mean of 3.37, which is described as moderate. An overall standard deviation of 0.76 established from the answers of the respondents in the survey indicates a small range of dispersion, which implies homogeneity in their perceptions. This result means that the items Test Anxiety are moderately experienced among Public High School learners.

#### **Academic Performance of Public High School Learners**

This part presents the academic performance in English, Science and Math of the Public High School learners is presented in the table below.

Table 1.2

Academic Performance of Public High School Learners

Subjects	Mean	Std. Deviation	Description
Eng	84.11	5.69	Approaching proficiency
Math	83.53	6.06	Approaching proficiency
Science	83.32	7.29	Approaching proficiency
Overall grade	83.6362	5.53	Approaching proficiency

This study considered the three academic subject of the public high school learner namely: English, Math, Science.

Based on the Table1.2 the English subject has the highest mean of 84.11 with the std. of 5.68. This means that the GPA respondents have goodin rating in this subject. Furthermore based on the results Mathematics gained a mean of 83.53 described as approaching to proficiency. This means that the GPA of the respondents is fairly good. Science got the lowest mean of 83.32 among of the two subjects with the description of approaching proficiency. This means that the respondents have good academic ratings in the three subjects. The tabulated data from table 1.2, the overall grade with a mean of 83.63 is described as approaching moderately. This means that the academic subjects have fairly good academic ratings.

Significance Influence of Test Anxiety and Academic Performance

Table 2 shows the result of regression analysis, the purpose of which is to determine the influence of test anxiety on the performance of students.

Table 2
Significance of the Influence of Test Anxiety and Academic Performance

Predictors	Beta Coefficients	t	p-value	Interpretation
Overall Anxiety	.154	67.332	.000	Significant

The results reveal that test anxiety significantly predicts the performance of students (B=.154, P<.05). This means that for every unit increase in test anxiety, there is a corresponding decreased in the performance by (B=.154, P<.05)

### **Lived Experiences of Participants Pertaining to Test Anxiety**

In the qualitative phase, the researcher conducted an in-depth interview and focus group discussion among the learners in the three Public High School in Davao City to gather information on their lived experiences of participants pertaining to their experienced to Test Anxiety.

There were 17 participants as suggested by the panel members who voluntarily signified their involvement in the study. Out of 17 participants, 10 of them preferred to participate in the indepth interview and seven for focus group discussion. Table 3. shows the profile of the participants who were involved in the study. This table displays the pseudonyms of participants, age range, gender, designation, and the location or the place of the study.

### **Profile of the Participants of the Study**

This part presents the profile of the Participants with their pseudonyms that is presented in the table below.

Table3.

Profile of the Participants of the Study

No.	Pseudonyms of Participants	Age Range	Gender	Designation	Location
1	Participant 0	14-15	F	IDI	Davao City
2	Participant 1	14-15	М	IDI	Davao City
3	Participant 2	14-16	F	IDI	Davao City
4	Participant 3	13-17	F	IDI	Davao City
5	Participant 4	13-17	F	IDI	Davao City
6	Participant 5	13-17	F	IDI	Davao City
7	Participant 6	13-17	М	IDI	Davao City
8	Participant 7	13-17	F	IDI	Davao City

9	Participant 8	13-17	М	IDI	Davao City
10	Participant 9	12-15	F	IDI	Davao City
11	Participant 10	12-15	F	FGD	Davao City
12	Participant 11	21-29	F	FGD	Davao City
13	Participant 12	13-17	F	FGD	Davao City
14	Participant 13	13-17	М	FGD	Davao City
15	Participant 14	13-17	F	FGD	Davao City
16	Participant 15	13-17	F	FGD	Davao City
17	Participant 16	13-17	М	FGD	Davao City

# **Lived Experiences of Participants Pertaining to Test Anxiety**

This part presents the live experiences of the participants pertaining to test anxiety as manifested by the participants. The consolidated responses of participants is presented in table below.

Table 3.1
Lived Experiences of Participants Pertaining to Test Anxiety

Issues Probed	Core Ideas	Codes/ Categories/ Nodes	Essential Themes	Supporting Theoretical Perspective
Struggles of participants with test anxiety during examinations	Trouble in understanding test directions	Comprehension Issues	Struggling with cognitive skills	Cognitive Theory of Anxiety.
	Difficulty in understanding the content			
	Cannot understand the lessons and the materials that has been previously studied			

Usually feel of failing the exam			
My mother will get angry if I fail	Fear of Failure	Feeling anxious about failing	Social-Cognitive
My heart is pounding when I received the examination paper  I feel that I cannot control some parts of my body to move involuntarily when exam almost starts	Bodily reactions	Experience physical discomfort	Tension manifested through muscle tension, accelerated heart rate, nervousness, or sweaty palms  Social-Cognitive

All participants expressed their difficulty of having test anxiety during examination which is reflective from the three themes, namely: struggling with cognitive skills, feeling anxious about failure, and experienced physical discomfort.

**Struggling with cognitive skills** .The test anxious students have trouble in their concentration during test taking particularly in the aspects of understanding test instructions and specific item questions. In fact, most of the students admit that they are easily distracted and have problems in recalling what they have previously learned. Hence, this contributed to the feeling of worry among the students regarding the outcome of the exam. These cognitive problems are expressed in the following narratives:

Usahay dili ko kasabot sa instruction sa test mao mahadlok nako namali akong mga tubag. ( Participant 1)

(I usually have trouble in understanding test directions that's why I have fear to commit mistakes)

Dili ko kasabot sa sulod sa exam pagmu aksyon nako og kabalaka. ( Participant 5)

(I find difficulty in understanding the content when I became anxious)

Pagmabalaka nako,makalimot ko sa akong mga gistudyhan.( Participant 3)

(If I feel anxious, I forget the lessons and the materials that I've previously studied)

**Feeling anxious about failing.** In the contribution of behavioral in dealing with test anxiety, the participants believed that it embraces of anxiety. The learners developed ability to deeply understand instruction of the test. There is also maturity in using collective knowledge and accumulation of problem solving on how to deal with test anxiety. Hence the learner indicates individual development at the same time their adaption anxiety as part of the test process. These are evident in the following narratives:

Panan-aw nako mawala akong fucos kay mahadlok ko mabagsak sa exam. (Participant 4)

(I usually feel hard to concentrate on the exam that I will fail the examination)

**Experience Physical Discomfort.** In the aspect of physiological in dealing with test anxiety the participants believed that self control and relaxation during the examination can lessen the feeling of anxiousness. Experiencing of tension muscles tightening and trembling muscles subside when feeling relax during examination.

Mu kusog ang pitik sa akong dughan pag madawat na nako ang papel. Panington tanan ako lawas og akong kamot. (Participant 6) (My heart is pounding when I received the examination paper. Sweating is all over me particularly in my hands.)

Mukurog akong tiil nga dili nako mapug ngan paghapit na mga sugod ang exam.

(Participant 1)

(My legs are uneasy. I feel that I cannot control its movement when exam almost starts)

# Role of Experiences in Shaping the Beliefs, Values, and Aspirations of Participants

This part presents the role of experiences in shaping the beliefts, values and aspirations of participants. The consolidated responses of participants is presented in the table below.

Table 4.

Role of Experiences in Shaping the Beliefs, Values, and Aspirations of Participants

Issues Probed	Core Ideas	Codes/ Categories	Essential Themes	Supporting Theoretical Perspectiv e
In Shaping Beliefs of participants to conquer test anxiety	<ul> <li>driven bygetting higher grades</li> <li>embracing anxiety aspart of test taking</li> <li>being grounded on purpose of achieving better performance</li> <li>heart's desire for coping with anxiety during examination</li> </ul>	Personal purpose to achieve better performance	Encouragin gselfto cope with test anxiety	Existentialis m theory
	<ul> <li>driven likeovercoming test anxiety</li> <li>intensely driventocope with anxiety</li> <li>stimulated by positive thoughts to cope with test anxiety</li> </ul>	Personal purpose to manage anxiety		
In Shaping the values of participants	<ul><li>be always prepared</li><li>put focus on studying</li><li>improve study skills</li></ul>	Personal intervention in addressing test anxiety	Preparing oneself to every test examinatio n	Existence Related- ness Growth Theory
	<ul> <li>consider examination as part of being a student</li> <li>continuously expose himself to exams</li> </ul>	Accepting that test taking is part of the school		-

		requirement s		
	upliftment of moral and confidence	Having niche in the school		
In Shaping the aspiration of participants	<ul> <li>displaying positivity at school</li> <li>studying religiouslyto achieve educational goals</li> </ul>	Increased effort to attain better performance	Preparing future effective academic	Motivation- Hygiene Theory
,	<ul><li>doing relaxation techniques</li><li>keep moving</li></ul>	Achieved healthy mind and body	Plans	

Figure 4. shows the core ideas or concepts and the emerging themes which emerge from the experiences of the informants pertaining to the role of experiences in shaping of belief, values and aspiration in dealing with test anxiety .Two essential themes have emerged from the interviews with the participants, namely Personal purpose to achieve better performance and Preparing oneself in every test examination.

In shaping beliefs of participants to conquer test anxiety, it highlighted **Personal purpose** to achieve better academic performance in school. It involves the driven by getting higher grades, embracing anxiety as part of test taking, being grounded on purpose of achieving better academic performance, heart's desire for coping with anxiety during examination.

Gusto ko na naka kuha ko ug taas na grado sa akong academic subjects, mao naningkamot kaau ko ug pag tuon. (
Participant2)

(I want to get high grades in my academic subject so I strive hard to study).

Ang pagkugi ug pagdala ug maau sa kakulba sa panahon sa exam, isa kini sa maaung buhaton para maka kuha ug taas na grado. ( Participant 5)

(Personal purpose is my driving force to commit high academic grades).

**Preparing oneself in every test or examination.** On the other hand, learners also developed personal intervention in dealing with test anxiety and accepting that test taking is part of the part of the school requirements. Moreover some learners apply their own strategy to generate deal with test anxiety allowing them generate ways to be logical, innovative and more creative ways. These are evident in the following quotes:

Mag huna huna kog stratehiya kung unsaon naku pag kalma akong sarili during examination para dile ko maratol during exam. (Participant 5)

(I though of intervention to lessen anxiousness during examination)

Nagtuo ko na sa pag gamit ug mga epekibo na stratehiya para ma handle ang anxiety ay maayong buhaton makatabang para maka kuha ug maa na score sa examination. ( participant 6)

(I believe that using strategies to handle anxiety should be done be done because it is helpful in getting good score in the examination)

On the positive outlook of life, many participants believed that achieving optimum academic performance can lead to better outcomes like recognition and better life. Hence, some participants do their best to achieve better academic performance. Moreover, achieving healthy mind and body is a good indicator in establishing positive attitude in dealing test anxiety. These are evident from the statements of participants, as follows:

Nangandoy ko na mo dako akong grado sa para ma proud akong parents ug naa koy dako opportunity sa future. (Participant 7)

(i wish I could get better academic performance so that my parent would be proud of me, and to have greater opportunity in the future.)

Positibo na panghuhuna sa pag dala sa test anxiety ay makatabang para ma improve and mga grado. (Particiapant 9)

(Positive thoughts in dealing with test anxiety is a great help to achieve better academic performance)

# **Data integration of Salient Qualitative and Quantitative Findings**

This part presents the data integration of salient qualitative and quantative finding of this study. The joint integration is presented in the table below.

Table 5.

Data integration of Salient Qualitative and Quantitative Findings

Aspects or focal points	Quantitative findings	findings	Nature of data integration	Axiological implications
Test Anxiety				
	Table 1.1 shows a high test anxiety levelin the	Table 4 on the lived experiences of students show that	Merging- Convergin g	Anxiety can lead to concentration

	category of incapacity as revealed by the item "The closer I am to a major exam, the harder it is for me to concentrate on the lesson" with a mean score of 3.69. On the other hand, a high level of test anxiety in the category of worry can be observed in the item "During important exams, I think that I am doing awful or that I may fail"	test anxious students have trouble in their concentration, and most of the students admit that they are having negative thoughts and became worried about the effects of failing the test.		problems and worry among the students due to fear of failure
Performanc e	The tabulated data from table 1.2 that the overall grade with a mean of 83.63 described as approaching moderately.	In Table 4, on the positive outlook of life, many participants believed that achieving optimum academic performance can lead to better outcomes like recognition and better life. Hence, some participants do their best to achieve better academic performance	Merging- Convergin g	Students have high expectation on their grades and doing their best to perform better at school
Significance of the Influence of test anxiety and performance	Table 2 As shown, that the test anxiety significantly influence the academic performance as supported by pvalue that is less than .05.	In Table 3.2 in shaping beliefs of participants to conquer test anxiety, it highlighted Personal purpose to achieve better academic performance in school. It involves	Merging- Convergin g	Conquering test anxiety can lead to better performance of students

	the drive of getting higher grades, embracing anxiety as part of test taking, being grounded on purpose of achieving better academic performance, heart's desire for coping with anxiety during examination			
--	---	--	--	--

# **Data integration of Salient Qualitative and Quantitative Findings**

Table 5 shows the joint display of salient quantitative and qualitative findings. It shows the nature and function of data integration in both quantitative and qualitative findings of the study.

**Test anxiety** .On the merging analysis which functions as converging, the following are quantitative findings with its qualitative equivalent: show a high test anxiety level in the category of incapacity as revealed by the item *The closer I am to a major exam, the harder it is for me to concentrate on the lesson* with a mean score of 3.69. On the other hand, a high level of test anxiety in the category of worry can be observed in the item *During important exams, I think that I am doing awful or that I may fail.* This entails that high level of anxiety was experienced by the public school learners during examination.

The above quantitative result expresses parallelism in terms of findings with the qualitative data. Hence, the qualitative findings also show that test anxious students have trouble in their concentration, and most of the students admit that they are having negative thoughts and became worried about the effects of failing the test. Therefore Anxiety can lead to concentration problems and worry among the students due to fear of failure.

**Performance**. The results of quantitative and qualitative findings also express parallelism in this aspect. The mean result on the overall grade of the Public High School Learner in academic have a mean of 83.63 described as approaching moderately. Thus it conforms to the qualitative result that many participants believed that achieving optimum academic performance can lead to better outcomes like recognition and better life. Hence, some participants do their best to achieve better academic performance. Consequently, the Students have high expectation on their grades and doing their best to perform better at school.

## Significance of the Influence of test anxiety and performance

On the merging analysis which functions as converging, the results also show parallelism in both quantitative and qualitative findings. The quantitative findings as shown, that the test anxiety significantly influences the academic performance as supported by p-value that is less than .05. Thus it conforms to the qualitative result that in shaping Beliefs of participants to conquer test anxiety, it highlighted Personal purpose to achieve better academic performance in school. It involves the drive on getting higher grades, embracing anxiety as part of test taking, being grounded on purpose of achieving better academic performance, heart's desire for coping with anxiety during examination.

As a result Conquering test anxiety can lead to better performance of students. The discussion of the results and implications of the findings of the study are presented in this chapter. The first section is discussion of quantitative and qualitative findings. On the other hand, the second part is the discussion of salient features of quantitative and qualitative results.

# The Status of Test Anxiety and Academic Performance of the Learners in English, Math and Science

The level of test anxiety of the public high school learners is described as moderate. This means that anxiety was sometime experienced by the learners when taking the examination. Hence these further denote that test anxiety had directly affected the academic performance of the learners in English, Science and Mathematics. This result conforms with the previous study of Hopko et al., (2005). A student with high test anxiety can fall behind academically because he or she is distracted and has impaired verbal working memory skills when anxious. Furthermore according to numerous research findings, test anxiety influences students' academic achievements (Culler & Holahan, 1980; Dendato & Diener, 1986; Wine, 1971; Wittmaier, 1972) and it impacts their cognitive functioning and emotional wellbeing (Berk & Nanda, 2006; Chapell et al., 2005; Cassady & Johnson, 2002; Diaz, 2001).

Similarly, the academic performance of the learners in Science, English and Math is also described as moderate. This means that academic performance of learners in Science, English and Math is affected by test anxiety. Furthermore the results in the United States revealed that test anxiety is positively correlated with GPA (Jing, 2007). Similar results were earlier found in the study of Chapell, et al. (2005) among American students, wherein differences in GPA were a function of the level of test anxiety, with less anxious test takers showing higher GPA than their counterpart who experienced high anxiety. This conforms the study of Driscoll et al, In the United States, it is a predominant issue that affects nearly 35 percent of the college student population. Furthermore Chapell, Blanding, and Silverstein (2005) carried out a study among 5,551 undergraduate and graduate students in Pennsylvania and Illinois and found a significant difference of academic achievement among three different levels (low, moderate, and high) of test—anxiety.

# Significance of the Influence of Test Anxiety and Academic Performance

The results of multiple regression analysis revealed that test anxiety significantly influenced the academic performance of the students. This results is congruent to the study conducted by Culler & Holahan, (1980); Dendato & Diener, (1986); Wine, (1971); Wittmaier, (1972) who revealed that test anxiety influences students' academic achievements. These demonstrate that statistically test anxiety has positive and strong impact on the academic performance of the students.

# Lived Experience of Participants Pertaining to Dealing with Test Anxiety

Three essential themes had emerged from the interviews with the participants are struggling cognitive skills, feeling about failing and experiencing physical discomfort. This highlighted three important factors of test anxiety such as comprehension issues, fear of failure and bodily reaction. This result supports the idea of Bandlos, Yates, & Thorndike-Christ, (1995); Williams, (1991); Humbree, (1981), cited in Rana & Mahmood, (2010). According to them emotionally, physically and cognitively, on test anxiety impact the students. Furthermore, it is the cognitive aspect of test anxiety that has been significantly accounted for in the decline of academic achievement of the students. However, according to other perspectives, students' academic achievements, aside from having a correlation with their level of engagement is also linked with their behaviors, cognitive and emotional aspects (Fredricks et al., 2004 cited in Lee & Suttle, 2010).

# Lived Experiences of the Participants Pertaining to Test Anxiety that Shape their Beliefs, Values and Aspirations.

The first theme that emerged from the interviews with the participants is cognitive components, it highlighted the comprehension issues. It involves in trouble in understanding test directions, difficulty in understanding the content of the examination. Moreover changed in values such as sense of commitment among participants was examined, In particular, it involves aspects such as making themselves give best school work, extending the time to prepare the examination that involves commitment in school activities. This result is parallel to the study conducted by Khalid and Hassan (2009) who explored the relationship between test anxiety and academic performance. It was found out that those who get high academic achievement got low score in test anxiety.

The second theme is Behavioural component, the concentration problems can be attributed to their concerns about consequences of failure. Most of students have negative thoughts and became worried about the effects of failing the test. Moreover, the students are thinking about what could happen or what would their parents feel if they cannot pass the examination. Moreover, majority of them are thinking negatively and comparing themselves to others. It is also evident in their descriptions of their actions indicating a lack of task focus during a test such as playing with a pencil, looking around the room and so forth. This result is support the study of Lee, (1999), said that highly anxious individuals perform poorly, especially when the task is hard or when performance is evaluated. During exams, these individuals are likely to engage in negative, self-deprecatory thoughts about themselves and about test consequences.

Lastly, in the physiological aspect, in dealing with test anxiety the participants believed that self control and relaxation during the examination can lessen the feeling of anxiousness. Experiencing tension, muscles tightening and trembling muscles subside when feeling relax during examination. This result conforms with the study of (Cassady, 2010) who revealed that most common among pupils is that , test anxiety was a combination of physiological perceptions that include worrying, fear, fright, blocked out, panic and other related pessimistic thoughts that can destroy test-takers' ability to comprehend questions in the tests and thus perform poorly on exams. This is consistent with the study of Huberty (2009) which found out that anxiety interferes with the way pupils learn because it gets in the way of good academic performance measured by tests; it can often lead to issues dealing with the emotional and social development by not having the ability to be confident about themselves because of the school performance.

# Role of Experiences in Shaping the Beliefs, Values, and Aspirations of Participants

In terms of the role of experiences in shaping the beliefs of participants to conquer test anxiety, it highlighted Personal purpose to achieve better academic performance in school. It involves their drive of getting higher grades, embracing anxiety as part of test taking, being grounded on purpose of achieving better academic performance, heart's desire for coping with anxiety during examination.

On the other hand, learners also developed personal intervention in dealing with test anxiety and accepting that test taking is part of school requirements. Moreover some learners apply their own strategy to deal with test anxiety allowing them generate ways to be logical, innovative and more creative ways.

On the positive outlook of life, many participants believed that achieving optimum academic performance can lead to better outcomes like recognition and better life. Hence, some participants do their best to achieve better academic performance. Moreover, achieving a healthy mind and body is a good indicator in establishing positive attitude in dealing test anxiety. According to Koballa (1988) offered three reasons for studying attitudes: They are relatively

enduring. Although attitudes can change, something must happen to cause that change to better achieve academic performance.

### **Implications for Educational Practice**

An educator has an important role in transforming students into productive and competitive individuals in the society. In order to achieve a meaningful transformation process towards the students better academic performance, an educator has to be equipped with sufficient competencies to help the student achieved better academic performance. Specifically, aspects on generating and promoting novel ideas and turning these into something concrete and useful to the learner. In other words, an educator has to be innovative to provide greater impact not only to the student's academic performance and to the school but as well as to the community at large.

Moreover, educators have to be aware that test anxiety is one of the important factors that affect the academic performance of the students, it is important that students are equipped with the necessary skill to lessen their fears towards test taking.

In a healthy, open, and pleasant quality of school working environment, where there is support coming from the teachers in any form, where there is sense of promoting positive school working environment, there is respect, support and acceptance of individual differences, then students will become more motivated to perform their responsibilities in school beyond what is expected. Once students possesses that inner drive, high academic performance is greatly achieved.

Moreover, when a student is recommended to engage in varied forms of empowerment activities, then he/she is also given with a big opportunity to capacitate oneself and become more creative in dealing with the school activities. Once a student is motivated, this follows that one has learn how to value the meaningfulness of life. The acquisition of sufficient knowledge, skills, and abilities in the school will transform a student to become capable in making creative solutions in all the complexities in their life.

#### REFERENCES

- Abdi, H. M., Bageri, S., Shoghi, S., Goodarzi, Sh., & Hosseinzadeh, A. (2012). The role of metacognitive and self-efficacy beliefs in students' test anxiety and academic achievement. Australian Journal of Basic and Applied Sciences, 6(12),418-422.
- Anastasi A, & Urbina S 2007. Psychological Testing, Second Impression. Delhi: Pearson Education Inc and Dorling Kindersley (India) Publishing Inc
- Asghari, A., Abdul Kadir, R., Elias, H., & Baba, M. (2012). Test anxiety and its related concepts: A brief review. *Education Science and Psychology*, *3* (22), 3-8.
- Bandalos, D.L., Yates, K., & Thorndike-Christ, T. (1995). Effect of math self-concept, perceived self-efficacy, and attribution for failure and success on test anxiety. Journal of Educational Psychology, 11, 351-360.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.
- Barrows, J., Dunn, S., Lloyd, C. (2013). Anxiety, SelfEfficacy, and College Exam Grades. Universal Journal of Educational Research (3):204-208.

- Bass, J., Burroughs, M., Gallion, R., Hodel, Jill. (2002). *Investigating Ways to Reduce Student Anxiety During Testing*. Master of Arts Action Research Project, Saint Xavier University and Skylight Field-Based Master's Program. Chicago, Illinois. Pgs 1-74.
- Beck, A. T., Emery, G., & Greenberg, R. (1985). Anxiety disorders and phobias: A cognitive perspective. New York, NY: Basic Books.
- Berk, R. A. & Nanda, J. (2006). A randomized trial of humor effects on test anxiety and test performance. Humor 19(4), 425-454. <a href="http://dx.doi.org/10.1515/HUMOR.2006.021">http://dx.doi.org/10.1515/HUMOR.2006.021</a>.
- Blankstein, K.R., Fett, G.L., Boase, P., & Toner, B.B. (1991). *Thought Listing and Endorsement Measures of Self-Referential Thinking in Test Anxiety.* In R. Schwarzer & R.A. Wicklund (Eds.) Achievement, Stress, and Anxiety (133-142). New York: Harwood.
- Bonito, S. R. 2013. Motivation factors in Distance Education. International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering 7(2): 458–460
- Boslaugh, S. P. (2013). Test anxiety. Salein Press. Encyclopaedia.
- Burns, D. J., (2011). Anxiety at the Time of the Final Exam: Relationships with Expectations and Performance. Retrived from: <a href="http://tlc.apa.uoit.ca/wp-content/uploads/2011/12/Anxiety-at-the-time-of-the-exam.pdf">http://tlc.apa.uoit.ca/wp-content/uploads/2011/12/Anxiety-at-the-time-of-the-exam.pdf</a>
- Burns, David. (2004). Anxiety at the Time of the Final Exam: Relationship with Expectations and Performance. Journal of Education for Business. (80, 2) 119-124.
- Carter, E.W., Webby, J., Hughes, C., Johnson, S.M., Plank, D.R., Barton-Arwood, S.M., & Lunsford, L.B. (2005). *Preparing Adolescents with High Incidence Disabilities for High Stakes Testing with Strategy Instruction*. Preventing School Failure, 55-62.
- Carveth, J.A., Gesse, T., & Moss, N. (1996). Survival strategies for nurse-midwifery students. Journal of Nurse-Midwifery, 41(1), 50-54..
- Cassady, J. & Johnson, R. (2001). *Cognitive Test Anxiety and Academic Performance*. Contemporary Educational Psychology, 27.
- Cassady, J. C. (2010). Self-reported GPA and SAT: A methodological note. Practical Assessment, Research, and Evaluation 7(12). Available online: <a href="http://ericae.net/pare/getvn.asp?v//7&n//12">http://ericae.net/pare/getvn.asp?v//7&n//12</a>
- Chapell, M. S., Blanding, Z. B., Silverstein, M. E., Takahashi, M., Newman, B. Gubi, A., &
- McCann, N. (2005). Test anxiety and academic performance in undergraduate and graduate students. Journal of Educational Psychology, 97(2), 268-274. 3,
- Cizek, G. J. & Burg, S. S. (2006)., G. J. & Burg, S. S. (2006). Addressing anxiety in a high-stakes environment. Thousand Oaks, CA: Corwin Press.
- Cohen, J. Ben-Jan & Rosenfield. (2008). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

- Coon, D., & Mitterer, J. (2009). Psychology of test anxiety. Journey of Cenage Learning, 28(3), 48-53. Cassady, J. C., & Johnson, R. E. (2002). Cognitive test anxiety and academic performance. Contemporary Educational Psychology, 27, 270-275
- Creswell, J. (2013) Research Design Qualitative, Quantitative, and Mixed Methods Approaches SAGE Publications, Inc
- Creswell, J. (2008). Research Design: Qualitative, Quantitative and Mixed Methods Approach (2nd Ed.). Thousand Oaks, CA: SAGE Publications
- Culler, R. E. & Holahan, C. J. (1980). Test anxiety and academic performance: The effects of study-related behaviors. Journal of Educational Psychology, 72, 16-20.
- Daskzan, J. (2004). Prevalence of test-anxiety and its' relationship to academic problems. Research center of organization education in Kurdistan province.
- Davidson, Randy. & Levitoc, Ellen. (2000). Overcoming Math Anxiety Second Edition. Addison Wesley Reading MA.
- Diaz, E. (2001). The range, magnitude, and duration of effects of natural and human-caused disasters: A review of the empirical literature. White River Junction, VT: National Centre for Post-Traumatic Stress Disorder, Department of Veterans Affairs.
- Driscoll, R., B. Holt & L. Hunter. 2005. Accelerated desensitization and adaptive attitudes interventions and test gains with academic probation students. ERIC 10: 13.
- Duke, S & Stober 2001. Test anxiety, working memory, and cognitive performance: Supportive effects of sequential demands. Cognition and Emotion, 15,381-389
- Etikan, I., Musa, S.A., & Alkassim, R.S. (2015). Comparison of Conveniece Sampling and Purposive Sampling. American Journal of Theoretical and Applied Statistics. 5(1). Retrieved from <a href="http://article.sciencepublishinggroup.com/pdf/10.11648.j.ajtas.20160">http://article.sciencepublishinggroup.com/pdf/10.11648.j.ajtas.20160</a> 501.11.pdf
- Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: the processing efficiency theory. Cognition & Emotion, 6, 409-434.
- Eysenck, M.W. (2001). Principles of cognitive psychology. Hove, East Sussex: Psychology Press. Gravette, F.J. & Forzano, L,B. (2006). Research methods for the Behavioral Science. Australia: Thamson and Wadworth.
- Felix C. (2013). A Multivariate Analysis between Study Skills and Test Anxiety. Phil. Journal of Theoretical and Applied Statistics
- Fredricks, J. A., Blumenfield, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. Review of Educational Research, 74(1), 59-109
- Guba, E. G., & Lincoln, Y. S. (1982). Establishing dependability and confirmability in naturalistic inquiry through an Audit. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY. Retrieved from <a href="http://www.eric.ed.gov/PDFS/ED216019.pdf">http://www.eric.ed.gov/PDFS/ED216019.pdf</a>

- Gubi, A., & McCann, N. (2005). Test Anxiety and Academic Performance in Undergraduate and Graduate Students. Journal of Educational Psychology, (97). 268-274
- Hadwin, J. A., Brogan, J., & Stevenson, J. (2005). State anxiety and working memory in
- Hadwin, J. A., Brogan, J., & Stevenson, J. (2005). State anxiety and working memory in
- Hadwin, J. A., Brogan, J., & Stevenson, J. (2005). State anxiety and working memory in
- Hadwin, J. A., Brogan, J., & Stevenson, J. (2005). State anxiety and working memory in
- Hadwin, J. A., Brogan, J., & Stevenson, J. (2005). State anxiety and working memory in
- Hancock, D. R. (2001). Effect of test anxiety and evaluative threats on students achievement and motivation. The Journal of Educational Research. 94(5), 284-290.
- Hassanzadeh, R., Ebrahimi, S., & Mahdinejad, G. (2012). Studying test anxiety and its relationship with self-efficacy, metacognitive beliefs and some effective predictable variables. European Journal of Social Services, 30(4), 511-522.
- Hembree, R. (1988). Correlates, causes, effects, and treatment of test anxiety. Review of Educational Research, 58, 47–77.
- Hill, K. T., & Eaton, W. O. (1977). The interaction of test anxiety and success-failure experiences in determining children's arithmetic performance. Developmental Psychology, 13(3), 205-211. http://dx.doi.org/10.1037/0012-1649.13.3.205
- Hopko, D.R., Crittendon, J.A., Grant, E., & Wilson, S.A. (2005). The Impact of Anxiety on Performance IQ. Anxiety, Stress, & Coping, 18 (1), 17-35.
- Huberty, T.J. (2009). Test and Performance Anxiety. Principal Leadership, 10-16
- Hyseni-Duraku, Z. (2014). Interplay between academic and personal factors in the academic performance of Bachelor students. Unpublished PHD thesis. University of Tirana. Albania
- Jegedy, S.A. (2007). The effect of the component task analysis model of instruction on students' performance in chemistry. Unpublished PhD Thesis of the University of Ado Ekiti
- Jing, H. (2007). Analysis of the Relationship Among Test Anxiety, Self-Concept, and Academic Competency. US-China Foreign Language, 5, 48-51.)
- Keeves, J. P., & Morgenstern, C. (1992). Attitudes toward science: Measures and effects. In J.P. Keeves (Ed.) The IEA Study of Science III: Changes in science Education and Achievement: 1970-1984 (pp. 122-140). New York: Pergamon.
- Kendra, C. (2001). Causes of Test Anxiety. The New York Times Company. Retrieved 24, 2001.
- Keoghi, E., Bond, F.W., French, C.C., Richards, A., & Davis, R.E. (2004). Test-Anxiety, Susceptibility to destruction and examination performance. Journal of Anxiety, Stress and Coping, 17(3), 241-252.
- Khalid, R., & Hasan, S. S. (2009). Test anxiety in high and low achievers. Pakistan Journal of Psychological Research, 24(3-4).
- Koballa JR., T. R. (1988). The determinants of female junior high school students' intentions to enroll in elective physical science courses in high school: testing the applicability of the theory of reasoned action. Journal of Research in Science Teaching, 25, 479–492..
- Leavy, P. (2017). Research Design. Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches. The Guilford Press

- Lee, M. & R. Larson (2000). The korean examination hell: Long hours of studying, distress and depression. Journal of Youth and Adolescence, 29, 249-271
- Ludipe, B. (2009). Influence of test anxiety on performance levels on numerical tasks of secondary school physics students. *Academic Leadership: Online Journal*, 7, 1–10.
- Masson, A.M., Hoyois, P., Pcadot, M., Nahama, V., Petit, F., & Ansseau, M. (2004). Girls are more successful than boys at the university: Gender group differences in models integrating motivational and aggressive components correlated with test-anxiety. [Online] Available: http://www.ncbi.nlm.nih.gov/sites/entrez?db=journals&term (October 23, 2009).
- Mathews A & MacLeod C. (1994)Cognitive Approaches to Emotion and Emotional Disorders. Ann Rev Psychology 45, 25–50,
- Mathews, A., Mackintosh, B., & Fulcher, E. (1997). Cognitive biase s in anxie ty and attention to threat. Trends in Cognitive Science, 1, 340-345.
- McCarthy, J., & Goffin, R. (2005). Selection Test Anxiety: Exploring Tension and Fear of Failure Across the Sexes in Simulated Selection Scenarios. International Journal of Selection and Assessment, 13, 282-294
- Mertens, D.M. (2010). Research and Evaluation in Education and Psychology. Integrating Diversity with Quantitative, Qualitative, and Mixed Methods. Third Edition. Thousand Oaks, CA.SAGE Publications, Inc.
- Morris, L. W., Davis, M. A., & Hutchings, C. H. (1981). Cognitive and emotional components of anxiety: Literature review and a revised worry-emotionality scale. Journal of Educational Psychology, 73, 541–555..
- Mozaffari, M.R. (2001). Rate of affective-family and educational problems between Shaheds' high school students and none Shaheds'high school students in Sanandaj. Organization Education of Kurdistan
- Mull, L., (2016). The role of academic optimism and study habits in college students test anxiety. Unpublished MA thesis. Ohio Dominican University.
- Musch, J. & Broder, A. (1999). Test Anxiety versus Academic Skills. A comparison of two alternative models for predicting performance in a statistics exam. Br J Educ. Psychology, 69, 105-116
- Needham, B.L. (2006). Gender differences in the consequences of depressive symptomatology for educational attainment, social support, and health risk behavior during the transition from adolescence to young adulthood, PhD thesis, University of Texas..
- Nolting, P. (2000). Math Study Skills Workbook. Boston MA: Houghton Mifflin Co..
- numerical tasks of secondary school physics students: Academic numerical tasks of secondary school physics students: Academic
- Ohata, K. (2005). Language anxiety from the teacher's perspective: Interviews with seven experienced ESL/EFL teachers. Journal of Language Learning, 3(1), 133-155.
- Oludipe, B. (2009). Influence of test anxiety on performance levels on
- Oludipe, B. (2009). Influence of test anxiety on performance levels on
- Oludipe. B. (2009). Influnece of test anxiety on performance levels on numerical tasks of secondary school physics students; Academic Leadership: Online Journal, 7 (4)

- Owens, M., Stevenson, J., Hadwin, J. A., & Norgate, R. (2012). Anxiety and depression in academic performance: An exploration of the mediating factors of worry and working memory. School Psychology International, 33, 433–449. doi:10.1177/0143034311427433
- Parviz, B., & Alemi, M. (2010). The impact of test anxiety on test performance among Iranian EFL Learning. Research in Artificial Intelligence and Neuroscience, 1(4), 45.
- Patton, M. Q. (1990) Qualitative evaluation and research methods. Sage Publications, Inc.
- Pekrun, R., Frenzel, A. C., Goetz, T., & Perry, R. P. (2007). The Control-Value Theory of Achievement Emotions: An Integrative Approach to Emotions in Education. In P. A. Schutz & R. Pekrun (Eds.), Emotion in Education (pp. 13–35). Oxford, UK: Academic Press
- Peleg, O. (2009). Test Anxiety, Academic Achievement, and Self-esteem Among Adolescents with or without Learning Disabilities.
- Porto, A. (2013). Definitions and classification of NAWDA nursing diagnoses. NANDA International, 68(4), 603-609
- Powell, T. C. (2001). Competitive advantage: Logical and philosophical considerations. Strategic Man-
- Putwain, D.W., & Best, N. (2011). Fear Appeals in the Primary Classroom: Effects on Test Anxiety and Test Grade. Learning and Individual Differences, 580-584.
- Rana, R.A., & Mahmood, N.,(2010). The relationship between Test Anxiety and Academic Achievement. Bulletin of Education and Research, 32(2), 63-74.
- Reyes, M. D. & Castillo, A. C., (2015), Test Anxiety and College Students' Performance on Mathematics Departmental Examination: Basis for Mathematics Achievement Enhancement, Asia Pacific Journal of Education, Arts and Sciences, 2 (1), 62-69
- Rezazadeh, M., & Tavakoli, M. (2009). Investigating the Relationship among Test Anxiety, Gender, Academic Achievement and Years of Study: A Case of Iranian EFL University Students. English Language Teaching, 2(4).
- Rogaten, J., Moneta, G. B., & Spada, M. M. (2013). Academic Performance as a Function of Approaches to Studying and Affect in Studying. Journal of Happiness
- Salend, S.J. (2009). Classroom Testing and Assessment for All: Beyond Standardization. Thousand Oaks, CA: Corwin Press.
- Sansigiry, S.S., & Sail, K. (2006). Effect of students' perception of course loads on test anxiety. America Journal of Pharmaceutical Education. 70(2), 1-6.
- Sarason, I. G. (1988). Anxiety, Self-preoccupation, and Attention. Anxiety Research, 1, 3-7.
- Sargolzaei, M. R., Samari, A. A., &Keykhany, A. A. (2003).Neuro-cognitive behavioral therapy in test anxiety control. Journal of Mental Health, 17(5), 34-42. Southeast Asian Interdisciplinary Research Journal *Stakes Environment*. Thousand Oaks, CA: Corwin Press.
- Schunk, D. H., & Hanson, A. R. (1989). Influence of peer-model attributes on children's beliefs and learning. Journal of Educational Psychology, 81, 431-434.
- Sharma, S., Sud, A., & Spielberger, C. D. (1983). Development of the Hindi form of Test Anxiety Inventory. In H. M. van der Ploeg, R. Schwarzer, & C. D. Spielberger (Eds.), Advances in lands: Swets & Zeitlinger

- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. Education for Information, 22(2004), 63-75.
- Shenton, The characteristics and development of young people's information universes, PhD Thesis, Northumbria University, 2004.
- Sinkovics, R., Penz P., and Ghauri, N. 2005 'Analysing Textual Data in International Marketing Research', Qualitative Market Research: An International Journal, vol.8, no.1, pp. 9-38.
- Stober, J. (2004). Dimensions of test anxiety relation in way of coping with pre-exam anxiety and uncertainty. Anxiety, Stress and Coping, 17, 213-226
- Strongman, K. T. (2000). The psychology of emotion: Theories of emotion in perspective. Toronto: John Wiley & Sons
- test anxiety research (Vol. 2, pp. 183-190). Lisse, The Nether-
- test anxiety research (Vol. 2, pp. 183–190). Lisse, The NethThe effects of study-related behaviors. Journal of Educational Psychology, 72(1), 16-20.
- Tongco, M.D.C. (2007) Purposive Sampling as a Tool for Informant Selection. A Journal for Plant, People, and Applied Research, 5, 147-158.
- Tsui, J.M., & Mazzocco, M.M. (2007). Effects of math anxiety and perfectionism on timed versus untimed math testing in mathametically gifted sixth graders. Roeper Review,29(2),132-139.
- Udo, M. K., Ramsey, G. P., & Mallow, J. V. (2004). Science anxiety and gender in students taking general education science courses. Journal of Science Education and Technology, 13(4), 435-446.
- Ware, B. W., Galassi, J. P., and Dew, K. M. H. (1990). 'The test anxiety inventory: A confirmatory factor analysis'. Anxiety Research, 3, 205–212.
- Williams, J. F. (1991). Modeling test anxiety, self-concept and high school students' academic achievement. Journal of Research & Development and Education, 25, 51-57
- Wine, J. (1971). Test anxiety and direction of attention. Psychological Bulletin, 76(2), 92-104.
- Zeidner, M. (1998). Test-anxiety: The state of the art. New York: Plenum Press.

Vol. 3 No. 1 April 2023 ISSN: 2815-1445 International Peer Reviewed Journal

Southeast Asian Journall of Multidisciplinary Studies