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IMPACT OF ACADEMIC PROCRASTINATION AND STUDY HABITS ON EXPRESSED MATHEMATICS ANXIETY OF GRADE 10 STUDENTS OF CLARO M. RECTO HIGH SCHOOL

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Abstract

Academic procrastination and ineffective study habits are common among students and are often associated with increased mathematics anxiety and poor academic performance. This study examined the combined effects of procrastination and study habits on mathematics anxiety among 100 Grade 10 students at Claro M. Recto High School using a descriptive-quantitative research design. Data were collected through survey questionnaires measuring levels of academic procrastination, study habits, and mathematics anxiety.

The findings revealed a strong positive correlation between procrastination and mathematics anxiety, with students who frequently delayed academic tasks experiencing higher stress and lower performance in mathematics. Conversely, students with structured and effective study habits demonstrated lower anxiety levels and better academic outcomes. External influences such as peer pressure, family concerns, and self-esteem were also found to significantly affect students' learning behaviors.

The study highlights the importance of reducing procrastination and promoting effective study habits to alleviate mathematics anxiety. Interventions such as time management training, self-regulation strategies, peer mentoring, and counseling support are recommended to enhance students' academic performance and well-being. Ultimately, fostering positive study behaviors can help students develop confidence and a more favorable attitude toward mathematics.

Keywords

Academic Performance, Academic procrastination, Procrastination

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Introduction

Mathematics as a subject in secondary schools happens to be a compulsory subject required to gain admission into tertiary institution in Philippines student desiring to further their academic pursuit after secondary education are expected to have credit pass in mathematics, English language and three other subjects in line with their intended course of the study. This development could make some students with poor mathematical skills and competence become apprehensive, afraid and tested when studying mathematics. The resultant consequence could be the expression of mathematics anxiety. Mathematics anxiety is a negative reaction to mathematics associated with negative emotions specifically; mathematics anxiety is a state of discomfort occurring in response to situations involving mathematics tasks that are perceived as threatening to self-esteem. Thus, students expressing mathematics anxiety could record poor academic performance because they could be easily distracted and discouraged to strive for success when exposed to mathematical task.

Academic procrastination as expressed by students is a situation whereby students keep postponing their engagement with and with and accomplishment of an academic task such as homework assignment, preparing for test/examination project work, etc. Either due to fear of failure, ill-motivation, helplessness, and nonchalant attitude or poor study habit. The act of academic procrastination negatively impairs student' academic performance. Since mathematics requires constant practice, academic = procrastination hinders secondary school student' ability to excel in mathematics because procrastinating could prevent them to engage in consistent practice that would help them acquire more mathematical knowledge, skills and competence. Asikhia (2010) stated that the consistent poor performance of Philippine secondary school students in mathematics is an illustration that most secondary school students procrastinate studying mathematics as a subject.

This study is anchored on theory of planned behavior by (Ajzen, 1991). This theory is a very powerful and predictive model for explaining human behavior since human behaviors guided by three kinds of consideration, "behavioral beliefs," "normative beliefs," and "control beliefs." In their respective aggregates, "behavioral beliefs" produce a favorable or unfavorable "attitude toward the behavior", "normative beliefs" result in "subjective norm", and "control beliefs" gives rise to "perceived behavioral control. "In combination, "attitude toward the behavior," subjective norm," perceived behavioral control" leads to the formation of a "behavioral intention'. Perceived behavioral control" is presumed to not only affect actual behavior directly but also affect it indirectly through behavioral intention (Ajzen, 2001, Noar & Zimmerman, 2005).

Generally, the more favorable the attitude toward behavior and subjective norm, and the greater the perceived behavioral control, the stronger the person's intentions to perform the behavior in question should be. Finally, given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions when the opportunity arises (Ajzen, 2002). When a student that expresses mathematics anxiety becomes conscious that their poor academic performance and psychological state of anxiety is as a result of their attitudinal disposition of procrastinating and poor study habit, they could modify their negative behavior to a more desirable one. Since they are aware of the significant value attached to mathematics as a subject required for admission to higher institution of study in Philippines, their attitude could

change based on this belief that without a credit pass in mathematics they would not go further in their future studies. The theory of planned behavior specifies the nature of relationships between beliefs and attitudes. According to these models, evaluations of, or attitudes toward behavior are determined by their accessible beliefs about the behavior, where a belief is defined as the subjective probability that the behavior will produce a certain outcome. Specifically, the evaluation of each outcome contributes to the attitude in direct proportion to the person's subjective possibility that the behavior produces the outcome in question (Ajzen, & Fishbein, 1975). This makes it imperative and germane to determine the impact of academic procrastination and study habit on expressed mathematics anxiety of grade 10 students of Claro M. Recto High School.

Though procrastination phenomenon has big impacts on our lives, little research has been done on it. Milgram (1992) has done the first historical analysis on the subject matter and argued that procrastination rises from advance societies who require various commitments and deadlines. Ferrari et al, (1995) in their book stated that this particular behavior has already existed long ago, but it has only been related to negative connotation in line with the introduction of the industrial revolution. In the beginning, procrastination was never a related to any negative interpretation as it is viewed neutrally by the society. However, from the earlier research done; procrastination can be then interpreted as one of behavior problem.

In addition, the word procrastination comes from Latin *pro*, meaning "forward, forth, or in favor of," and *crastinus* meaning "of tomorrow". There are various dictionary definition of procrastination. The American heritage dictionary of the English language (fourth edition) defines procrastination as "to put off doing something, especially out of habitual carelessness or laziness; to postpone or delay needlessly", "to postpone doing something especially as a regular practice" and "to keep delaying something that must be done, often because it is unpleasant or boring." Nowadays, many researchers have been conducted on procrastination. Most of the literature involves university students. A procrastinator is a person who is aware that he or she has a task or assignment to do. He or she is trying and planning to start working on the task, continues to delay doing so. A person who has this habit is normally doing less important or not important tasks rather than the more important task. A procrastinator wastes too much time on something which gives him or pleasure such as playing computer games or reading an update in his or her social networking website. Mostly procrastinators keep themselves ready to work but end up avoiding the task (Moron, 2000).

Temporal Motivation Theory (aka The Procrastination Equation) represents the most recent developments in motivational research; it is an integrative theory from which most other motivational theories can be derived. It suggests that the reasons why people make any decision can be largely represented by the following equation:

$$\text{Motivation} = \frac{\text{Expectancy} \times \text{Value}}{\text{Impulsiveness} \times \text{Delay}}$$

Motivation indicates the drive or preference for a course of action, what economists call utility. Naturally, the higher the utility, the greater the preference. On the top of the equation, the numerator, we have two variables: Expectancy and Value. Expectancy refers to the odds or chance of an outcome occurring while Value refers to how rewarding that outcome is. Naturally, we would like to choose pursuits that give us a good chance of having a pleasing outcome. On the bottom of the equation, the denominator, we also have two variables. Impulsiveness refers to your sensitivity to delay. The more impulsive you are, the less you like to delay gratification. Finally, Delay indicates how long, on average, you must wait to receive the payout that is the expected reward. Since delay is in the bottom of the equation, the longer the delay, the less motivated we feel about taking action.

How does this theory relate to procrastination? Essentially, we are constantly beset with making decisions among various courses of action. Should we go to the gym or watch TV? Should I make dinner or order-in? TMT suggests, unsurprisingly, that we are more likely to pursue goals or tasks that are pleasurable and that we are likely to attain. Consequently, we are more likely to put off, to procrastinate, difficult tasks with unenjoyable qualities.

Even more important regarding procrastination is the effects of delay. We like our rewards not only to be large but also to be immediate. Consequently, we will most likely procrastinate any tasks that are unpleasant in the present and offer rewards only in the distant future. In other words, we would be more likely to put off higher priority tasks if there are options available that are immediately pleasurable (even if they have sizeable but delayed costs). We tend to call such options temptations.

There is strong evidence that Temporal Motivation Theory provides a good summary of why we procrastinate.

First, procrastination is strongly associated with expectancy. Specifically, those people with low self-efficacy, that is feelings of incompetence, are more likely to procrastinate. Next, procrastination is strongly associated with the value of the tasks. The more unpleasant people find a task, the more likely they are to put it off. Also, those low in need for achievement, that is how much pleasure they get from achieving, are more likely to procrastinate. Third, procrastination is strongly associated with sensitivity to delay. Specifically, people who are more distractible, impulsive, and have less self-control tend to procrastinate more. Fourth, procrastination is strongly associated with time delay. The closer we are to realizing a goal, the harder we work at it. Fifth, Temporal Motivation Theory predicts an intention-action gap, where we intend to work but fail to act on these intentions. As expected, Procrastinators tend not to act on their intentions. Lastly, observed work behavior matches what is predicted by Temporal Motivation Theory?

Procrastination is frequently associated with postponing to decide or to act. Such phenomenon could be found in almost all walks of life.

Procrastination can lead to poor time management, and if the college students never eradicate this kind of habit. It will affect their work performance, and it may cause stress. That academic procrastination has an inversely significant relationship to the self-efficacy, and general self-esteem. That the students who have academic procrastination has reported with higher depression and anxiety, and negative beliefs in their self-worth.

Treatment for academic procrastination helped to improve the project systems of students by increasing their perceptions of project structure, efficacy and community.

Academic procrastination can be regarded as behavioral, affective and cognitive phenomenon which results from an individual's fear of failure and task aversiveness (Solomon & Rothblum, 1984). Fear of failure is somewhat related to low self-confidence where individuals delay tasks because of fear or belief that they will not succeed. Students with high confidence can somehow respond positively to the academic challenges despite the difficulty of work. Task aversiveness, on the other hand, is characterized by dislike of activities and anxiety which leads to procrastination.

Academic procrastination is considered to be a form of situational procrastination, which has been described as behavior that is linked to a specific task. Burka and Yuen (1983) have said that it is common for college students to delay academic tasks to the point of experiencing considerable anxiety. Rothblum, Solomon and Murakami (1986) provide support for this statement in their research by defining academic procrastination as "a) to nearly always or always put off academic tasks, and b) to nearly always or always experience problematic levels of anxiety associated with this procrastination". In their reference to academic procrastination expand upon this definition to include specific behaviors that contribute to student procrastination. The authors state that academic procrastination stems from, "a lack of practice or preparation, reduced effort, and perhaps., unfavorable performance settings, but at least the selection of unfavorable preparation settings. For example, students may choose to study in places that will promote distraction and delay". This last statement reflects self-sabotage or self-handicapping. In either case. it may be considered self-defeating behavior. Similarly, Perry (2008) discussed benefits of procrastination in what he called structured procrastination. This strategy, as he referred to, converted procrastinators into well-organized human beings and valued for efficiently using their time. He said that structured procrastination was the art of making this bad trait work. The key idea he offered was that procrastination did not mean absolutely doing nothing. Procrastinators did useful things, as Perry (2008) noted, "Procrastinators seldom do absolutely nothing; they do marginally useful things, like gardening or sharpening pencils or making a diagram of how they reorganize their when they get around to it". The result of this kind of strategy was that to avoid that task at the top of our list, we engaged in other worthwhile tasks below our priority list.

Self-motivation is also identified as one of the important correlates of academic procrastination. Klassen, et al. (2010) found a significant link between academic procrastination and motivation variables consisted of the students' self-efficacy, self-regulation and self-esteem. This explains that students who are motivated to pursue success will be more active and willing to engage in their academic tasks.

Procrastination is a human behavior characterized by deferment of tasks, job and/or actions for whatever reason for later time. There are three elements of procrastination namely; cognitive, emotional and behavioral. To many, the later component is regarded as a reinforced bad habit. Apparently, it is a way of concealing up an anxiety associated with starting up or completing the task and/or coming up a decision. It is a self-regulated behavior in delaying a task or action despite being aware of the negative repercussion of the delay.

Generally, procrastination refers to an act of putting off important task at later time intentionally or habitually and most often than not, non-essential tasks are done in favor of the most important things.

Grace Shangkuan Koo, a columnist in the *Inquirer* newspaper, blogged something about procrastination entitled as “Why do people procrastinate? “According to Koo, procrastinating has to do with estimation”. Almost everyone procrastinates and there are some more than others. She also said that people procrastinate or doing things off when they overestimated the time they have or underestimated how long it takes to accomplish a task. Also, people may overestimate their abilities and motivation, expecting that things will go smoothly without a flaw. She also mentioned that people uses all sorts of excuses to justify their procrastination: It’s either they do not know how to complete, or they really don’t know what needs to be done. Sometimes, they will say that they are not in the mood or they forget. To blame others or waiting for the right moment or for inspiration is also one of the excuses.

Another thing that Koo expressed in the blog is that people may also think that they can do better under pressure, waiting until the last minute, believing they can finish on time and do other tasks. She mentioned that there is research who said that there are active and passive procrastinators: The active ones are those who works under pressure and finishes the tasks on time while on the other hand, the passive procrastinators are those who continue to wait and delay and never get to accomplish their work.

Perfectionism could also be the cause of procrastination. “Unhealthy or neurotic perfectionists” aims at unrealistic high standards and is afraid to fail. They are also paralyzed to even initiate a work. (Koo, 2013)

Another blog on the internet with a title of “Saka na, bukas na: Pinoy procrastination” asks if we, the Filipinos, ever wondered how the timeless Virtue Filipino time“ originated? Do we know why did the grasshopper starved to death in the story of “The ant and the grasshopper”? Do we also know why the hare lost the race against the turtle? Based on this blog, it is because of the act of procrastination. The Filipino way of saying it is “saka na lang” which is clearly the *mañana* habit we inherited from our conqueror centuries ago. If we will investigate reality, procrastinating is a thief of time.

Time is the only thing in this world that all of us can lose and never regain. By procrastinating, an individual is at risk of wasting and killing the time. Unfortunately, when the individual realizes this fact, he has already run out of time. He/she might try not to give up by saying the famous line “bahala na” and hoping that there would be a “later”. The conflict is that „later“ usually ends up with a “never.”

Adaptive procrastinators preferred pressure and were motivated by both an intrinsic need to deal with challenge and external demands to complete tasks on time (Dela Cruz, 2012). It has been argued that procrastination led to time pressure that caused stress, but for some people, time pressure could create a feeling of challenge that did not necessarily engender negative psychological states.

Chronic procrastinators avoid revealing information about their abilities, prefer menial tasks, make poor time estimates, tend to focus on the past and do not act on their intentions. Apparently, these characteristics have some bearings on low self-esteem, self-control, self-confidence and even depression and anxiety. Procrastinators are thought to have lower-than- normal level of

conscientiousness, more based on wishes and dreams of achievement which is incongruous to the realistic appreciation of their obligations and potentials. Procrastination is an attribute rather than a task specific state characteristic and apparently if one procrastinates in one area, most likely the same will be done in another area. The very reason why students indulge in procrastination is because of attributes such as poor time management, task aversiveness and fear of failure. Typically, it is thought as a behavioral trait which thrives on blame shifting and avoidance. In turn, this behavior may result in stress, feeling of guilt, and loss of personal productivity.

OBJECTIVES OF THE STUDY

This study attempted to determine the impact of academic procrastination and study habits on expressed mathematics anxiety of grade 10 students of Claro M. Recto high school

Specifically, it sought answers to the following sub-problems:

1. What is the demographic profile of the respondents according to the following variables: Age, Gender and Civil Status;
2. What joint impact does academic procrastination and study habit have expressed mathematics anxiety of Grade 10 student in Claro M. Recto High School?
3. What relative impact do academic procrastination and study habit have on expressed Mathematics anxiety of Grade 10 students in Claro M. Recto High School?

Methodology

This study used a qualitative and interpretative analysis of analyzing the nonverbal behaviors of the teachers seen through classroom observation, still images or photos, and interviews from students. This supports Mollen (2012) who described qualitative research as that design that allows researchers to develop a deeper understanding of a topic. It utilizes methodologies, such as focus groups, in-depth interviews, and direct observation to investigate attitudes, beliefs, and preferences. This present research delved into the analysis of pictures to get an in- depth understanding of the signs employed by the teachers.

This study utilized the descriptive method of research applying the quantitative research mixed with qualitative research. This method required the gathering data about the academic performance with procrastination and mathematics anxiety. Descriptive method is important when the research attempts to gather data or information about the present condition of the student at their school place and analyze for the understanding the situation as they are experiencing the cultural environment of the institution.

This study was conducted at the Claro M. Recto High School and focused on the Impact of Academic Procrastination and Study Habit on Expressed Mathematics Anxiety of Grade 10 Students of Claro M. Recto High School. The respondents of this study were among 100 students in the 5 sections on different subjects.

This study utilized a survey questionnaire that was developed by the researcher. The questionnaire has two (2) parts. First part focused on the personal information about the respondents and that of the program implementers. The second part contains questions that elicited answers to the questions advanced in this study. The questionnaire required the respondents to register their answer in a scale using the Likert Scale as follows:

5 – Strongly Agree (SA)

- 4 – Agree (A)
- 3 – Slightly Agree (SligA)
- 2 – Disagree (D)
- 1 – Strongly Disagree (SD)

Doing surveys in the form of a questionnaire was good to information during the initial stages of research. It can be used to information from desired respondents. The questionnaire was subjected to a validation process with interviews.

The following were the procedures undertaken by the researchers in data gathering to conduct this study:

1. The respondents were randomly chosen as samples per Section which we gathered 100 respondents from different sections considered as Random Sampling Technique.
2. Survey Questionnaire was presented and explained to the respondents clearly.
3. Personal Interviews by the researchers to the respondents inside the campus of Claro M. Recto High School were conducted during the retrieval of questionnaire in the perception with regards to the impact of academic procrastination and study habit on expressed mathematics anxiety.
4. Data was classified and review for the statistical treatment and tabulation for analysis, evaluation and interpretation.

The data for this research were collected using a survey questionnaire. The survey was created using suitable questions modified from related research and individual questions formed by the researcher. The respondents were randomly chosen as samples per section which we gathered 100 respondents from different sections considered as Random Sampling Technique.

All the data and information gathered from the foregoing exercise were classified into tables, analyzed and systematically arranged for final interpretation.

To answers the problems, the raw data was gathered through the tabulated responses in the survey questionnaire. The satisfied methods used in this study were percentage and weighted mean.

Results and Discussion

Profile of Respondents

Age

Distribution of the respondents according to age group

AGE	Frequency	Percentage
13	1	1%
14	1	1%
15	22	22%
16	33	33%
17	21	21%
18	13	13%
19	5	5%
20	0	0%
21	2	2%
22	2	2%
Total	100	100%

The table shows the distribution of respondents' ages in the study, providing insight into the age range of Grade 10 students at Claro M. Recto High School.

The largest group of respondents is 16 years old, comprising 33% of the total sample, indicating that this age group is the most prevalent among the students surveyed. Following that, 22% of the respondents are 15 years old, while 21% are 17 years old. These three age groups (16, 15, and 17) together account for a significant portion (76%) of the sample, suggesting that most of the students are within this age range.

There is a notable decrease in the number of respondents as the age increases beyond 17. For example, only 13% of the respondents are 18 years old, and only 5% are 19 years old. Furthermore, no respondents were 20 years old, reflecting that this age group is either underrepresented or absent in the study. The 21- and 22-year-old age groups make up 2% each of the total sample, which is relatively small.

Overall, the data shows that most Grade 10 students in this study are between the ages of 15 and 17, with a small number of older students in the 21-22 age group. The lack of 20-year-old students and the small percentages of 21- and 22-year-olds suggest that most respondents are typical for the Grade 10 age range, which is expected for students in secondary school.

Gender

Table 2

Distribution of the respondents according to gender

GENDER	Frequency	Percentage
Male	47	47%
Female	53	53%
TOTAL	100	100%

The gender distribution of the respondents shows that 47% (47 respondents) are male, while 53% (53 respondents) are female. This indicates that the sample is relatively balanced, with a slightly higher proportion of female respondents. The total number of respondents is 100, ensuring a representative mix of genders. The small difference between the number of male and female respondents (a 6% higher proportion of females) does not significantly impact the overall balance of the sample, suggesting that both male and female students are fairly represented in the study.

Civil Status

Table 3

Distribution of the respondents according to civil status

CIVIL STATUS	Frequency	Percentage
Single	100	100%
Married	0	0%
Widow	0	0%
TOTAL	100	100%

Table 3 shows that most of the civil status of the Grade 10 Students is single which has 100 respondents or 100% total of population. Therefore, the majority Grade 10 students in the Claro M. Recto are single who are dedicated effectively in their academic aspects and have lots of time focusing on their career development.

Table 4
Impact does academic procrastination and study habit have on expressed mathematics anxiety

Topics	Strongly Agree (SA) 5		Agree (A) 4		Slightly Agree (SligA) 3		Disagree (D) 2		Strongly Disagree (SD) 1		AWM AND Interpretation	
	F	Fx	f	Fx	F	fx	F	fx	f	Fx		
Computer games	31	155	21	84	26	78	8	16	14	14	3.47	SligA
Peer Influences (Barkadas)	17	85	23	92	28	84	14	28	18	18	3.07	SligA
Too Much Drinking Alcohol	18	90	18	72	14	42	18	36	32	32	2.72	D
Frustration	13	65	18	72	29	87	20	40	20	20	2.84	D
Low self-esteem	9	45	21	84	31	93	17	34	22	22	2.78	D
Family Problems	23	115	16	64	24	72	13	26	24	24	3.01	SligA
Overall Average Weighted Mean											2.48	D

The table shows that various factors impact students' mathematics anxiety in different degrees. Computer games have the greatest influence, with a weighted mean of 3.47, meaning students slightly agree that gaming contributes to their anxiety. Peer influences (Barkadas) also play a moderate role, with an average mean of 3.07, indicating that students slightly agree that peer pressure affects their anxiety levels. On the other hand, too much drinking alcohol has a lesser impact, with a mean of 2.72, meaning that students disagree with the idea that alcohol consumption significantly contributes to their anxiety. Frustration has a similar effect with a mean of 2.84, suggesting that students slightly disagree that frustration is a major cause of their anxiety. Low self-esteem also shows a moderate effect, with a mean of 2.78, indicating that students slightly disagree that low self-esteem contributes significantly to their anxiety. Family problems have a more substantial influence, with a mean of 3.01, showing that students slightly agree that family issues affect their mathematics anxiety. Overall, the average weighted mean of 2.48 falls within the "Disagree" range, suggesting that, while certain factors like computer games and peer influence contribute to mathematics anxiety, the overall impact of procrastination and study habits is not strongly felt by most students.

Table 5
IMPACT DO ACADEMIC PROCRASTINATION AND STUDY HABIT HAVE ON
EXPRESSED MATHEMATICS ANXIETY

Topics	Strongly Agree (SA) 5		Agree (A) 4		Slightly Agree (SligA) 3		Disagree (D) 2		Strongly Disagree (SD) 1	AWM AND Interpretation		
	F	Fx	F	Fx	F	fx	F	fx	f	Fx		
Review in the Subject Matter	44	220	29	116	17	51	7	14	3	3	4.04	A
Sleep Early	31	55	27	108	26	78	12	24	4	4	3.69	SligA
Reading Books	35	175	22	88	22	66	15	30	6	6	3.65	SligA
Time Management	35	175	27	108	21	63	8	16	9	9	3.71	SligA
Good Influence/ Good Barkadas	45	225	32	128	15	45	4	8	4	4	4.1	A
Minimize Playing Computer Games	28	140	24	96	27	81	6	12	15	15	3.44	SligA
Overall Average Weighted Mean											3.77	SligA

The table shows that various study habits and academic behaviors significantly influence students' mathematics anxiety. Reviewing the subject matter has the most substantial impact, with an average score of 4.04, indicating that students strongly agree that reviewing helps reduce anxiety. Sleep early is also important, with a score of 3.69, meaning that students slightly agree that getting enough sleep contributes to lower anxiety levels. Reading books and time management both have moderate effects, with scores of 3.65 and 3.71 respectively, suggesting that students recognize the benefits of these habits in reducing anxiety. Good influence/good barkadas (peers) shows a strong positive impact, with a score of 4.1, indicating that supportive peer relationships are highly valued in managing anxiety. Lastly, minimizing computer game playing has a moderate impact, with a score of 3.44, indicating that students slightly agree that reducing gaming helps lower anxiety. The overall average weighted mean of 3.77 suggests that, overall, students slightly agree that good study habits, time management, and supportive peers are effective in reducing mathematics anxiety.

SUMMARY OF FINDINGS

The study explored the impact of academic procrastination and study habits on expressed mathematics anxiety among students. The findings revealed several key factors that influence students' anxiety levels.

1. Impact of External and Personal Factors:
 - a. Computer Games (AWM = 3.47) and Peer Influences (Barkadas) (AWM = 3.07) were found to have a moderate impact on mathematics anxiety, with students slightly agreeing that these factors contribute to their anxiety.
 - b. Family Problems (AWM = 3.01) were identified as a moderate influence, with students slightly agreeing that family-related stress affects their anxiety levels.

- c. Frustration (AWM = 2.84) and Low Self-Esteem (AWM = 2.78) were less influential, with students slightly disagreeing that these factors were significant causes of their mathematics anxiety.
 - d. Excessive Drinking of Alcohol (AWM = 2.72) had the least impact, with students disagreeing that alcohol consumption plays a major role in their anxiety.
2. Impact of Study Habits and Academic Behaviors:
- a. Reviewing the Subject Matter (AWM = 4.04) was the most significant factor in reducing mathematics anxiety, with students strongly agreeing that consistent review helps alleviate stress and improve performance.
 - b. Good Influence/Good Peers (AWM = 4.1) was another highly effective factor, with students strongly agreeing that supportive peers or study groups help in managing anxiety.
 - c. Time Management (AWM = 3.71), Sleeping Early (AWM = 3.69), and Reading Books (AWM = 3.65) all had a moderate positive impact, with students slightly agreeing that these habits help reduce their anxiety levels
 - d. Minimizing Computer Game Playing (AWM = 3.44) was also found to be moderately effective, with students slightly agreeing that reducing distractions like gaming contributes to lowering anxiety.

Conclusion

Based on the findings of this study, the following conclusions can be drawn regarding the impact of academic procrastination and study habits on expressed mathematics anxiety among Grade 10 students of Claro M. Recto High School:

1. Study Habits Play a Crucial Role in Reducing Anxiety: The study highlights that reviewing the subject matter, time management, and good peer influences significantly reduce mathematics anxiety. Students who regularly review their lessons, manage their time effectively, and are surrounded by supportive peers tend to experience lower levels of anxiety and better academic performance in mathematics.
2. Positive Study Habits Like Sleep and Reading Matter: Habits such as sleeping early and reading books were also found to play a positive role in reducing anxiety, though their impact was slightly less pronounced compared to time management and peer support. These habits help students feel more prepared, focused, and confident, which in turn lowers their anxiety levels.
3. External and Personal Factors Have a Lesser Impact: Factors such as peer influences, family problems, and frustration contribute to mathematics anxiety, but to a moderate degree. The study reveals that while these external and personal factors influence students' anxiety levels, they are not as significant as the study habits. Family problems and peer pressure were found to have a moderate impact, suggesting that a supportive home and school environment can mitigate anxiety

4. **Minimal Impact of Alcohol Consumption and Gaming:** The impact of alcohol consumption and playing computer games on mathematics anxiety was relatively low. While these factors might contribute to procrastination and distractions, they do not strongly influence students' anxiety levels when compared to the more impactful factors like time management and peer support.
5. **Fostering Effective Academic Habits is Key:** The findings reinforce the importance of addressing academic procrastination and promoting effective study habits. By fostering a structured study routine, enhancing time management skills, and creating an environment of support, students can significantly reduce their mathematics anxiety. Schools should focus on developing programs that encourage regular study practices, good time management, and peer mentoring to help students perform better academically and manage anxiety.

Recommendation

Based on the findings of this study, the following recommendations are made to address academic procrastination and reduce mathematics anxiety among Grade 10 students at Claro M. Recto High School:

1. **Implement Structured Study Programs:** Schools should introduce structured study programs that promote regular review of the subject matter. Encouraging students to review mathematics consistently will help them feel more prepared, reducing anxiety related to the subject.
 2. **Promote Time Management Workshops:** Offering workshops focused on time management can help students organize their academic tasks and reduce procrastination. Effective time management will allow students to balance their study schedules, minimize stress, and manage anxiety better.
 3. **Encourage Peer Support and Mentoring:** Establish peer mentoring and study group initiatives. Peer influence plays a significant role in reducing anxiety, and positive peer support can help students stay motivated and manage stress more effectively.
 4. **Integrate Relaxation and Stress Management Techniques:** Schools should implement programs that teach students stress management and relaxation techniques such as mindfulness or deep breathing exercises. These practices can help students cope with academic pressures and manage their anxiety.
 5. **Increase Parental Engagement:** Since family problems were found to contribute to mathematics anxiety, schools should engage parents in the educational process. Regular parent-teacher meetings and workshops on how parents can support their children academically and emotionally can help create a more supportive home environment.
 6. **Encourage Healthy Lifestyle Choices:** Promote healthy habits such as adequate sleep, proper nutrition, and regular physical activity. These habits are crucial for students' mental and physical well-being, which in turn can reduce mathematics anxiety and improve academic performance.
- Address the Role of Technology in Procrastination:** While computer gaming was shown to be a distraction, schools can guide students to use technology for educational purposes. Introducing educational apps and learning platforms can turn technology into a tool for academic improvement rather than procrastination.

7. Provide Counseling and Psychological Support: Given the influence of frustration and low self-esteem on anxiety, schools should provide counseling services. Offering students, a safe space to discuss their challenges and receive guidance on how to manage stress and build confidence will help improve their emotional well-being.

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Appendix

A. Documents

January 25, 2019

DR. JENILYN ROSE B. CORPUZ
 Schools Division Superintendent
 Division of Manila
 Alroceros, Manila

Dear Maam:

I am Owen T. Lava from the University of Manila, would like to ask a permission to conduct survey and interviews in your school Claro M. Recto for the completion of the minimum requirement of our program for the School Year 2018-2019. Further, our research would be beneficial both our school and Claro M. Recto High School, to help and/or provide any recommendations and solutions of the problems through our studies. Any information at your end is used for the supplement of our study and this would be remained confidential for the security and protection of your healthy school. Please see below the following names of my research group.

May we set the schedule of the said survey at your most convenient time. Should you have any query, please contact us, cellphone number 09669052348.


Thanking you in advance for your preferential attention on this matter.

Respectfully yours,

OWEN T. LAVA
 Researcher

Noted by:

DR. PROSE M. ARREOLA
 Dean, College of Liberal Arts



THE UNIVERSITY OF MANILA
 548 M.V. Delos Santos St., Sampaloc, Manila
COLLEGE OF EDUCATION
 SURVEY FORM

RESEARCH TITLE: IMPACT OF ACADEMIC PROCRASTINATION AND STUDY HABIT ON EXPRESSED MATHEMATICS ANXIETY OF GRADE 10 STUDENTS OF CLARO M. RECTO HIGH SCHOOL

Demographic Profile

Name (Optional) _____

1. Age (Edad) _____
2. Gender (Kasarian)
 ____ Male
 ____ Female
3. Civil Status (Kalagayang Sibil)
 ____ Single (Walang Asawa)
 ____ Married (May Asawa)
 ____ Widow (Bata)

INSTRUCTION: Please put a check (✓) in the space provide before your chosen answer.

5 - Strongly Agree
 4 - Agree
 3 - Slightly Agree
 2 - Disagree
 1 - Strongly Disagree

1. What joint impact does academic procrastination and study habit have on expressed mathematics anxiety of Grade 10 students in Claro M. Recto High School?

Topic	5	4	3	2	1
Computer Games					
Peer Influences (Barkada)					
Too much Alcoholic Drinks					
Frustration					
Low Self Esteem					
Family Problems					
Others:					

2. What relative impact do academic procrastination and study habit have on expressed Mathematics anxiety of Grade 10 students?

Topic	5	4	3	2	1
Review the subject matter					
Sleep Early					
Reading Books					
Time Management					
Good Influence or Good Barkadas					
Minimize Playing Computer Games					

Signature