MATHEMATICS ANXIETY PHENOMENON AMONG STUDENTS: A STUDY ON FIVE SELECTED PROGRAMS IN UiTM MELAKA

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1. Letter of Report Submission

Tarikh   : 14 September 2012
No Fail Projek   : 600-RMI/SSP/DANA 5/3/Dsp (287/2011)

Penolong Naib Canselor (Penyelidikan)
Institut Pengurusan Penyelidikan
Universiti Teknologi MARA
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Ybhg. Prof. ,

LAPORAN AKHIR PENYELIDIKAN "MATHEMATICS ANXIETY PHENOMENON AMONG STUDENTS: A STUDY ON FIVE SELECTED PROGRAMS IN UiTM MELAKA"

Saya dengan segala hormatnya merujuk kepada perkara di atas, bersama-sama ini menyertakan 3 (tiga) naskah Laporan Akhir Penyelidikan Dana Kecemerlangan bertajuk "Mathematics Anxiety Phenomenon among Students: A Study on Five Selected Programs in UiTM Melaka".

Sekian, terima kasih.

Yang benar,

MOHD HAFIZ BIN MOHAMMAD HAMZAH
Ketua
Projek Penyelidikan

UNIVERSITI
TEKNOLOGI
MARA

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KELULUSAN PERMOHONAN DANA KECEMERLANGAN 06/2011

Tajuk Projek	:	Mathematics Anxiety Phenomenon Among Students : A Study on Five Selected Courses in UiTM Melaka
Kod Projek	:	600-RMI/SSP/DANA 5/3/Dsp (287 /2011)
Kategori Projek	:	Kategori F (2011)
Tempoh	:	15 Jun 2011 – 14 Jun 2012 (12 bulan)
Jumlah Peruntukan	:	RM 5,000.00
Ketua Projek	:	En Mohd Hafiz Mohammad Hamzah

Dengan hormatnya perkara di atas adalah dirujuk.

2.   Sukacita dimaklumkan pihak Universiti telah meluluskan cadangan penyelidikan Y. Brs Profesor/tuan/puan untuk membiayai projek penyelidikan di bawah Dana Kecemerlangan UiTM.

3   Bagi pihak Universiti kami mengucapkan tahniah kepada Y. Brs. Profesor/tuan/puan kerana kejayaan ini dan seterusnya diharapkan berjaya menyiapkan projek ini dengan cemerlang.

4.   Peruntukan kewangan akan disalurkan melalui tiga (3) peringkat berdasarkan kepada laporan kemajuan serta kewangan yang mencapai perbelanjaan lebih kurang 50% dari peruntukan yang diterima.

Peringkat Pertama	20%
Peringkat Kedua	40%
Peringkat Ketiga	40%

5.   Untuk tujuan mengemaskini, pihak Y. Brs. Profesor/tuan/puan adalah diminta untuk melengkapkan semula kertas cadangan penyelidikan sekiranya perlu, mengisi borang setuju terima projek penyelidikan dan menyusun perancangan semula bajet yang baru seperti yang diluluskan. Sila lihat lampiran bagi tatacara tambahan untuk pengurusan projek.

Sekian, harap maklum.

"SELAMAT MENJALANKAN PENYELIDIKAN DENGAN JAYANYA"

Yang benar

DR OSKAR HASDINOR HASSAN
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Tarikh : 11 MEI 2012

Mohd Hafiz bin Mohammad Hamzah
Pensyarah
Fakulti Sains Komputer dan Matematik
UiTM Cawangan Melaka

Tuan

PERMOHONAN LANJUTAN TEMPOH PROJEK PENYELIDIKAN DANA KECEMERLANGAN DARI 14 JUN 2012 HINGGA 14 SEPT. 2012

Dengan hormatnya perkara di atas dirujuk:

2.   Sukacita dimaklumkan bahawa pihak Penyelidikan, Jaringan Industri dan Alumni, UiTM Cawangan Melaka bersetuju untuk melanjutkan tempoh Penyelidikan Dana Kecemerlangan tuan dari 14 Jun 2012 sehingga 14 Sept. 2012 (3 bulan sahaja). Bagaimanapun permohonan kali kedua tidak dibenarkan.

Tajuk Projek	:	**Mathematics Anxiety Phenomenon among Students: A Study on Five Selected Programs in UiTM Melaka.**
Ketua Projek	:	**Mohd Hafiz bin Mohammad Hamzah**

3.   Sekian dimaklumkan. Terima kasih.

Yang benar

PROF. MADYA DR. ROAIMAH OMAR
Timbalan Rektor
Penyelidikan, Jaringan Industri & Alumni (PJI&A)
UiTM Cawangan Melaka

s.k - Timbalan Bendahari, UiTM Melaka

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and

To all students of Universiti Teknologi MARA Melaka taking Diploma in Accountancy, Diploma in Business Management, Diploma in Public Administration, Diploma in Office Management and Pre-Diploma Commerce.

4. Enhanced Research Title and Objectives

Original Title as Proposed:

Mathematics Anxiety Phenomenon among Students: A Study on Five Selected Courses in UiTM Melaka.

Improved/Enhanced Title:

Mathematics Anxiety Phenomenon among Students: A Study on Five Selected Programs in UiTM Melaka.

Original Objectives as Proposed:

1. To determine if there is a relationship between students' educational background and their Mathematics anxiety level of five selected courses in UiTM Melaka.
2. To determine whether students with a high self-esteem can has a less Mathematicss anxiety level or else.

Improved/Enhanced Objectives:

1. To determine the level of Mathematics anxiety among students in UiTM Melaka.
2. To determine the relationship between levels of self esteem and level of Mathematics anxiety among students.

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3. Report

a. Proposed Executive Summary

Students always think that Mathematics as a burden to their academic life where slowly they feel fear to Mathematics. This phenomenon is called the Mathematics anxiety. Mathematics anxiety is a learned emotional response to either following process: participating in a Mathematics class, listening to lecture, working through a Mathematics problem or discussing Mathematics.

This research investigate the Mathematics anxiety phenomenon among students in Universiti Teknologi MARA Melaka inclusive only five selected course which are Diploma in Accountancy, Diploma in Business Study, Diploma in Public Administration, Diploma in Office Management and Pre-Diploma Commerce. There are many reasons why this Mathematics anxiety happens. Students who had a poor achievement or poor educational background in Mathematics subject only but not in other subject will generate a general dislike of Mathematics. Students who had a negative self-esteem experience had a large Mathematics anxiety level which might because of their social life where they like to compare themselves with their peers and always try to exceed them.

The objectives of this research are to determine the Mathematics anxiety level among all of this five selected courses where we want to identify why this anxiety happen among students according to three main reasons which are educational background, student level of self-esteem and their social life.

The primary data obtained from the questionnaire distributed to 30 selected students for each five selected courses. Mathematics Anxiety Rating Scale (MARS) will be used when designing the questionnaire. The data is then analyzed using the software SPSS to get the statistical result. A correlation analysis will also be used to determine the relationship between variables.

Outcomes from this research will answer all the objectives of this research and will become a suggestions and ideas for a Mathematics lecturers and teachers to improve their teaching skills.

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b. Enhanced Executive Summary

We are often had a feeling of uneasy and worried when facing with Mathematical questions. This feeling sometime comes with physically response such as sweating, shaking or increased pulse. This phenomenon occurred especially for students which are known as the Mathematics Anxiety phenomenon. Mathematics anxiety is a learned emotional response to either following process: participating in a Mathematics class, listening to lecture, working through a Mathematics problem or discussing Mathematics. This research investigate the Mathematics anxiety phenomenon among students in Universiti Teknologi MARA Melaka includes five selected programs offered here which are Diploma in Accountancy, Diploma in Business Study, Diploma in Public Administration, Diploma in Office Management and Pre-Diploma Commerce. In this research, we are going to find the level of Mathematics anxiety among students and also to compare the level of Mathematics anxiety with the level of self esteem among students in different programs. The primary data were obtained from the questionnaire distributed to 30 selected students for each five selected programs. Mathematics Anxiety Rating Scale (MARS) will be used when designing the questionnaire. The data is then analyzed using the software SPSS to get the statistical result. Outcomes from this research will answer all the objectives of this research and will benefit Mathematics' lecturers and teachers to improve their teaching skills.

Keywords: Anxiety, Mathematics anxiety, self esteem, educational background, MARS

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c. Introduction

Mathematics anxiety is a learned emotional response to one or more of the following: participating in Mathematics class, listening to a lecture, working through a Mathematics problem, or discussing Mathematics (Rossnan, S, 2006). Mathematics is a subject that involves multi-tasking tasks such as computational skills, problem solving and critical thinking (Sahin & Ahmet, 2010). Doing a multi-tasking works at a same time sometimes looks quite difficult for certain people.

There are lots of factors that can cause Mathematics anxiety. Some of the factors are the intrinsic factors such as the student's level of self esteem while others are caused by natural factors such as social life, or family education background. There are students who can do very well in other subjects but when it comes to Mathematics, they did it poorly. This scenario will make students slowly feel that Mathematics was a burden to them. As time comes by their performance got worsen and they will have these anxiety feeling when it comes to Mathematics problem.

This is the main idea of our research where we want to determine the level of Mathematics anxiety among fresh students who just entered Universiti Teknologi MARA (UiTM) Melaka that are taking social science programs. Lots of factors can cause this phenomenon but our research will be based on our research objectives which are to determine the level of Mathematics anxiety among students in UiTM Melaka and also to determine the relationship between levels of self esteem and level of Mathematics anxiety among students.

In UiTM Melaka we had selected 5 different programs of social science's stream which are Diploma in Accountancy (AC110), Diploma in Public Administration (AM110), Diploma in Business (BM111), Diploma in Office Management (BM118) and Pre-Diploma Commerce (PD003). 30 students from each program were selected randomly and will be given a set of questionnaire to be answered.

All selected candidates are taking Business Mathematics (MAT112) for diploma programs and Intensive Mathematics I (MAT037) for pre-diploma program. The pre-requisite for every program are different based on the programs requirement respectively. For accounting students, their Mathematics in Sijil Pelajaran Malaysia (SPM) is more concerned compared to other diploma program that only requires some moderate skills in Mathematics. However for the pre-diploma program, they

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only need to get three credits in order to further their study which mean if their fail their Mathematics during SPM, there still a chance for them to get into this program.

Sahin Kesici & Ahmet Erdogan, (2010) in their research stated that students with a negative self-esteem experience more Mathematics anxiety compared to students with positive self-esteem. Azlina et. al (2005) stated that Bumiputera students had a low Mathematics achievement based on total students enrolled in science division compared to art division because they are trying to avoid taking Mathematics during university level.

Based on the data provided by the questionnaire distributed, we are going to measure the Mathematics anxiety level among them and also the relationship with their level of self esteem. Outcomes from this research will help the lecturers in UiTM Melaka to improve their teaching skills and also the management of UiTM in choosing the students based on their selected programs.

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d. Brief Literature Review

Introduction

In this section we begin with the meaning of anxiety and the elaboration of test anxiety. After that we will continue to the research that had been made on the topics of Mathematics anxiety. Many factors will be considered here in order to support our research. Our research based on three main factors which are students educational backgrounds including their parents educational backgrounds also, the student social life based on where they live with their parents either in town or rural area, and also the level of self esteem of the students itself. The level of self esteem will be based on Rosenberg online test which will be elaborate in this chapter.

Anxiety and Test Anxiety

According to Puskar & Kathryn R. (2003), the term anxiety refer to the uncomfortable feeling periodically experience by people without a psychiatric disorder. Sarah Rosnan (2006) defines anxiety as an abnormal or overwhelming sense of apprehension and fear with physiological signs such as sweating, tension, or increased pulse within individual's capacity to cope.

This means that anxiety is a human feeling when they do not like or prefer something they had to face every day. However if these anxiety is not controlled it can caused an anxiety disorder which is a mental problem. Anxiety disorders are a group of mental disorders that have shared features of overwhelming fear or persistent anxiety that interferes with daily activities.

Amy & Anthony (2009) stated that anxiety are included the panic disorder (with or without agoraphobia), generalized anxiety disorder, specific phobia, social phobia, obsessive-compulsive disorder, post-traumatic stress disorder and acute stress disorder. There are several causes of anxiety such as stage fright, traumatic car accidents, high building and many more. However, for this study, we will only focus on college student's anxiety. Students anxiety is usually related to their education line for example when taking examination paper, quizzes, solving assignments and many more. Mostly, student fear examination the most starting from the preparation, sitting for the paper and waiting or getting the result. This phenomenon is called the test anxiety.

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Jolyn D. Whitaker (2007) in their research stated that test anxiety as an individual's physiological, cognitive, and behavioral responses that stimulate negative feelings about an evaluation. Thus these mean that, there are a relationship between academic field and emotions namely the test anxiety since when facing the test anxiety, some physiological reactions showed which includes sensation such as heart rate increase, nausea, panic and others (Anne L. Bruehl, 2009).

Test anxiety is one of the problem among people especially students. When they learn from their lecturers or teachers they are at a relaxing state trying to understand. This anxiety can cause of anxiety to others such as to some difficult subjects. One of the most problematic subjects is Mathematics.

Mathematics Anxiety

In 1972, Richardson and Suinn defined Mathematics anxiety as "feelings of tension and anxiety that interfere with the manipulation of numbers and the solving of mathematical problems in a wide variety of ordinary life and academic situations". An anxiety begins with a particular incident. The experience of failure becomes a block to furthering their study of Mathematics.

Laura (2007) state that Mathematics anxiety can be measured using a scale called the Mathematics Anxiety Rating Scale (MARS) proposed by Richardson & Suinn, (1972). This MARS model is based on the Likert scale for example 1 to 5 where 1 represent "Do not worry at all" and 5 represent "Very worry". Lorelei (1978) in her research on the validation of MARS model based on four hypothesis which are MARS score were inversely related to intensity of participation by students in mathematics, females exhibits greater level of MARS, the higher the MARS the more negative reactions to study Mathematics and MARS scores were positively correlated with scores on measure of test anxiety. Her research supports this research on how MARS can be a good scale in measuring the mathematics anxiety among students.

Tina (2010) proposed that Mathematics anxiety can be determine by qualitative and quantitative study. Quantitative data obtained from the questionnaire distributed to the respondents considering the MARS model while qualitative data were obtained from the interviews of the respondents. The respondents statements about Mathematics are taking into considerations and then the Mathematics anxiety level were determine based on the respondents' statements.

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Factors of mathematics anxiety

There are many factors why an anxiety in Mathematics occurs to our students. In our research, we need to focus only three main factors. First is student's educational background second is about student's social life and the last is about self esteem.

According to Catherine (2006), students with negative or apathetic attitude were connected to Mathematics anxiety. Past experiences also contribute to the Mathematic anxiety. She looked for the relationship between students' perceptions of their problem solving abilities and their level of stress resulting from Mathematics. She found that Mathematics did not stress them out if they were good problem solvers. If they were not good at problem-solving then Mathematics to be stressful.

In 2006, Vivian Olivia conducted a study to examine the cognitive processes used during problem-solving tasks of two middle school students with different levels of Mathematics anxiety and self-esteem. One student had low self-esteem combined with low Mathematics anxiety, while the other had high self-esteem and high Mathematics anxiety. Both of the students were given eight tasks to be completed. The students managed to use cognitive process well to solve the tasks. At the last, the researcher found that, the student with low self-esteem and low Mathematics anxiety used logical and analytical thinking, used problem solving strategies on 7 of 8 tasks and did not reflect on her work as cognitive process. 4 of 8 problems correct. While the student with high self-esteem and high mathematics anxiety used logical and creative thinking, used problem solving strategies on 3 of 8 tasks and reflected on three of the 8 tasks as cognitive process. 3 of 8 problems correct.

According to Calandra Moorman (2007), she investigated the problem solving abilities of African American community college students. Qualitative methods were used to determine how African American community college students with low Mathematics anxiety and high Mathematics anxiety engage in problem solving tasks including their strategies and thinking processes. Two female students were selected as students with high Mathematics anxiety and two male students were selected as students with low Mathematics anxiety. 6 problems were given to the students. The result of the study is shown in Table 1.

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Table 1: Strategies and thinking process to both students with low and high mathematics anxiety

Problem	Students with low mathematical anxiety		Students with high mathematical anxiety	
	Strategy	**Thinking Processes**	**Strategy**	**Thinking Processes**
Penny"s Dimes	Making a list	Comprehending linguistic & numerical info Formulating plan to solve Regulating the solution path Detecting & correcting errors	Drawing a picture Making a list	Observing relationships Formulating plan to solve Regulating the solution path
Night of the Howling Dogs	Looking for patterns Making a list Algebraic equation	Formulating plan to solve Regulating the solution path	Drawing a picture	Comprehending linguistic & numerical info Observing relationships Formulating plan to solve Regulating the solution path Detecting & correcting errors
Cascades State Park	Algebraic Equations	Formulating plan to solve	Drawing a picture	Observing relationships

		Regulating the solution path Detecting & correcting errors	Algebraic Equations	Formulating plan to solve Regulating the solution path
Divisors and Reciprocals	Making a list	Comprehending linguistic & numerical info	None	Comprehending linguistic & numerical info
Dad"s Wallet	Working Backward Algebraic Equations	Formulating plan to solve Regulating the solution path	Working Backward	Formulating plan to solve Regulating the solution path Detecting & correcting errors
The Pool Deck	Drawing a picture	Observing relationships Formulating plan to solve Regulating the solution path Detecting & correcting errors	Drawing a picture	Comprehending linguistic & numerical info Observing relationships Formulating plan to solve Regulating the solution path

According to Janet Sprybrook (2009), she was investigated the relationship among working memory, Mathematics anxiety and Mathematics achievement in developmental Mathematics courses in community college. She found that there was a relationship between auditory working memory and Mathematics achievement. While there was a weak correlation between Mathematics anxiety and working memory.

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Rosenberg Self Esteem

Self esteem is a positive or negative perception of one about them. It can be a good motivation to them and sometime it can make you feel down. Rosenberg (1965) defines as "totality of the individual's thoughts and feelings with reference to himself as an object." Besides self-esteem, self-efficacy or mastery, and self-identities are important parts of the self-concept. Rosenberg online self-esteem questionnaire was the most popular because much of Rosenberg's work examined how social structural positions like racial or ethnic statuses and institutional contexts like schools or families relate to self-esteem.

In this research, Rosenberg proposed questionnaire were used as the reference to the development of questionnaire. Questions are modified in order for it to be reliable for this research. What are we going to find is the relationship between Mathematics anxiety level and the self esteem level. People with high self esteem must have a very high motivation values means the Mathematics anxiety should be lesser. This is what we are going to find in our research.

e.   Methodology

This is the qualitative research where all the data were analyzed statistically. 150 students were selected randomly based on simple random sampling on classes of five selected programs which are Diploma in Accounting (AC110), Diploma in Public Administration (AM110), Diploma in Office Management (OM114), Diploma in Business Management (BM111) and Pre-Diploma Commerce (PD003). The chosen classes will be given set of questionnaire which consists of three parts which are introduction parts, Mathematics anxiety parts and the self esteem parts.

Questionnaire on Mathematics anxiety were develop based on MARS with some modification as suggested by Richardson & Suinn (1972) while for the self esteem part, the development of questionnaire was based on Rosenberg online self-esteem questionnaire also with some modification. All data were based on Likert scale except for the introduction parts. The questionnaire are based on the Likert scale with 1- Not at all, 2- A little, 3-A fair amount, 4-Much and 5-Very much to show the level of anxiety. The higher the number the higher the level of anxiety.

The questionnaire were divided into three main parts which are the introduction part, Mathematics anxiety part and also the self-esteem part. For the introduction part, the questions are about the students programs, age, gender, parent's education and also their hometown. This is the basic things needed in analyzing the questionnaire so that we can divide all the respondents according to their character.

The second part of the questionnaire is about the Mathematics anxiety level. 30 questions on Mathematics anxiety were given to selective respondent about the situation which can cause Mathematics anxiety. The questionnaire on Mathematics anxiety was based on several parts such as preparation before taking Mathematics test, during taking Mathematics tests and after taking the test. Several questions based on the real life problems are also asked in order to determine the level of anxiety among the students. The anxiety level then being calculated statistically and divided into programs and also the average values. The highest and lowest anxiety were determined from the results and being discussed.

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The last part of the questionnaire was the self esteem part. Here we have 10 questions on the self esteem based on situation as suggested by Rosenberg (1965). This questions are also the real life situation base. Likert scale again being used with 1- Strongly agree, 2- Agree, 3- Disagree and 4-Strongly disagree. The values were also analyzed and explain statistically.

All data were analyzed using SPSS version 15 and all the results were compiled and explained based on statistical and MARS view. Cronbach's alpha realibilty scale shows 0.931 for mathematics anxiety questionnaire and 0.720 for self esteem questionnaire. This means that both data are reliable.

f.   Results and Discussion

All the data obtained from the questionnaire were analyzed and the explanations are as stated below.

Table 2: Gender and Program Cross tabulate

		Programs					Total
		AC110	AM110	BM111	OM114	PD003	
Gender	Male	9	14	9	8	10	50
	Female	18	16	25	22	19	100
Total		27	30	34	30	29	150

Table 2 show the total respondent based on their gender and programs. Total respondents were 150 students. We can see that majority of the respondent are female, which is not a surprising fact because nowadays the majority of the students in Institutions of Higher Education Level have a higher percentage of female enrolment (Azlina et. al, 2005). The most male students are at AM110 while the most female students are at BM111. BM111 gives a largest number of respondents which are 34 students followed by AM110 and OM114 30 students, PD003 29 students and AC110 27 students. The differences in values of respondents along the selected programs are because of the different number of students in the selected class.

Table 3: Mathematics Anxiety Level Based on Program

Program	Mathematics Anxiety Level
Average	3.2951
Diploma in Accounting (AC110)	3.2654
Diploma in Public Administration (AM110)	2.9089
Diploma in Business Management (BM111)	3.3804
Diploma in Office Management (OM114)	3.4457
Pre Diploma Commerce (PD003)	3.4667

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Table 3 show the Mathematics anxiety level among student based on program. As the overall, students in UiTM Melaka had a score of 3.2951 which mean a fair amount of Mathematics anxiety among them. The highest score is for students in Pre Diploma Commerce with score of 3.4667 followed by 3.4457 for the Diploma in Office Management, 3.3804 for Diploma in Business Management, 3.2654 in Diploma in Accountancy and the lowest score is 2.9089 for Diploma in Public Administration.

We can see that Pre-Diploma had the highest level of mathematics anxiety since their qualification of entrance is lower compared to other program. Most of them are Sijil Pelajaran Malaysia (SPM) graduates who did not really excel in their SPM. So by taking pre-diploma with two main subjects: English and Mathematics, they are having a higher Mathematics anxiety compare to other programs. Diploma in Accountancy on the other hand shows quiet a low anxiety level since accountancy program most of it involves calculations. It means that most of the students are mentally prepared to handle calculation. Students of Diploma in Office Management and Diploma in Business Management had a middle value of Mathematics anxiety level.

In contrast, Diploma in Public Administration shows the lowest Mathematics anxiety level; this might be because of this intake session. Some of students from this intake session might come from a matriculation program and they already taking mathematics before. They might not be able to succeed in matriculation because of the difficulty of the program but during diploma, they are only taking Business Mathematics paper which is a lot easier. For students of Diploma in Office Management and Diploma in Business Management their mathematics anxiety level are at a fair amount, means that there exist an anxiety but still controllable. It is actually a normal for people having a little bit of anxiety when facing with a need of problem solving thinking.

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Table 4: Overall Mathematics Anxiety Level among Students

	N	Minimum	Maximum	Mean	Std. Deviation
Realizing that in your programme there are certain math class to be attend as the requirement	150	1	5	3.35	1.100
Thinking about the upcoming math test one week before	150	1	5	3.61	1.086
Thinking about the upcoming math test one day before.	150	1	5	3.27	1.213
Thinking about the upcoming math test one hour before.	150	1	5	3.08	1.368
Thinking about the upcoming math test less than 10 minutes before.	150	1	5	3.01	1.393
Getting a "pop quiz" in a math class.	150	1	5	3.22	1.074
Waiting to get the math test returned to you where you expect to do well.	150	1	5	3.52	.981
Studying math alone.	150	1	5	3.07	1.205
Studying math with your study group.	150	1	5	3.51	1.073
Studying math for the upcoming final exam.	150	1	5	3.88	1.080
Doing homework where your part is the most difficult one.	150	1	5	3.65	1.004
Preparation before studying math.	150	1	5	3.62	1.021
Working with questions involves lots of fraction and power.	150	1	5	3.34	.995
Adding some negative and positive numbers.	150	1	5	3.21	.987
Having someone looking at your when you are working on math problem.	150	1	5	3.50	1.079
Dividing a five digit number by a two digit number.	150	1	5	3.35	.962
Using pen instead of pencil to solve mathematic problems.	150	1	5	3.21	1.222

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Watching someone solving math problem using calculator.	150	1	5	3.51	1.067
Reading cash receipt after you purchase something.	150	1	5	3.42	1.149
Calculating your monthly budget	150	1	5	3.14	1.123
Trying to solve math problem that easily solve by your brother/sister	150	1	5	3.25	1.129
Solving mathematical equation involving logarithm and exponents.	150	1	5	3.13	1.019
Picking up math text book to begin working on assignments.	150	1	5	3.18	.990
Being given a set of division problem to solve.	150	1	5	3.25	.941
Being given a set of subtraction to solve.	150	1	5	3.22	.896
Calculating you club monthly expenses for a year.	150	1	5	2.91	1.095
Totaling up dinner bill that you think overcharged to you.	150	1	5	3.20	1.129
Memorizing some figures such as your friend's phone number.	150	1	5	3.29	1.046
Figuring out the sales tax on purchase of some fast food restaurant.	150	1	5	3.13	1.070
Having a vicious lecturer for your math class.	150	1	5	2.85	1.273
Valid N (listwise)	150				

30 questions as shown on Table 4 were given to selective respondent about the situation which can cause mathematics anxiety. The development of the questionnaire was based on Richardson & Suinn(1972) Mathematics Anxiety Rating Scale (MARS) but with some modification. Likert scale was used to show level of anxiety with 1- Not at all, 2- A little, 3-A fair amount, 4-Much and 5-Very much.

Table 4 shows the answers given by all 150 respondents with the highest value is 3.88 while the lowest is 2.85. The range value is between 2 to 4 which mean