

<http://heanoti.com/index.php/hn>

## RESEARCH ARTICLE

URL of this article: <http://heanoti.com/index.php/hn/article/view/hn20501>**Anxiety Level Among Teacher Education Students****Ma. Erenita V. Bahian<sup>1(CA)</sup>**<sup>1(CA)</sup>Eastern Visayas State University- Ormoc City Campus, Philippines; nildabahian@yahoo.com  
(Corresponding Author)**ABSTRACT**

The present study investigated the level of anxiety among freshmen non-mathematics teacher education students. Using the statistics, it is geared to determine associations if any between their level of anxiety and demographic profiles. The researcher utilized quantitative descriptive-survey design to 170 respondents who were purposively chosen using pre-selection criteria. A 10-item Likert scale researcher-developed questionnaire, which underwent reliability test, was used to satisfy the intention. Data analyses were carried out statistically using Statistical Package for Social Sciences version 23.0. Results showed most of the respondents were females, aging from 15-19 years old. The findings revealed that respondents agree that they sometimes feel anxious in classroom mathematics class, and fear is felt during examination and board-related activities. There was association between respondent's age and gender to the level of anxiety in learning the course to non-mathematics major students. Furthermore, the result divulged that older students often experienced higher level of anxiety than younger age, while female are more anxious than men during mathematics classes. The study recommends to utilize its findings to determine etiology of anxiety and its corresponding intervention in the limelight of instruction.

**Keywords:** Anxiety, Anxiety level, Teacher education, Education, Education students**INTRODUCTION**

Conceptually speaking, anxiety is an abnormal and overwhelming sense of apprehension and fear often marked by psychological signs such as sweating, tensions, and increased pulse by doubt and concerning reality and nature of the treat, and by self-doubt about one's capacity to cope with it.

Mathematics anxiety has been defined as the feeling of tension and anxiety that interfere with the manipulation of numbers and the solving of the mathematical problems in a wide variety of ordinary life and academic situations. Math anxiety can cause one to forget and lose one's self-confidence<sup>(1)</sup>.

The fear of mathematics course is deeply rooted and is often initiated by a child's first experience with instructional math. Further, a mild anxiety is helpful as it reflects normal response of a human nature to any given situation; however, intervention comes in when this turns severe<sup>(2)</sup>. Shoes added that the cycle of anxiety began among students who took up Mathematics, leading to inability to learn and to do math problems due to increased anxiety. Unless the person in crises situation decided to confront the source of anxiety, significant gaps in their development continuous to widen, worse leading to permanent blockage to one's success.

The fear of numbers remain s to be the common problem students are experiencing in school. Mathematics anxiety is believed to alter the state of student's performance in school, hence discomfort is created when doing mathematical and other academic-related tasks<sup>(3)</sup>. Although there is no specific cause as to its existence, scholars supposed that individual coping determines its degree of effects.

Identifying the student's mathematical anxiety would be a great help for them to know on how capable they are to learn mathematics. This study also aims to promote ideas to teachers on how they are going to make variations in their teaching strategies that can alleviate the math anxiety of the students.

**METHODS**

This study utilized quantitative descriptive- survey design to determine the level of anxiety among non-mathematics major teacher education students. The respondents were identified through purposive sampling from freshmen students enrolled during the first semester of 2017, either male or female, regardless of the age in the interview rate, and gave consent without coercion, threat, harm or force. Afterwiche, the 170 non-mathematics major education students were identified. These students specialized in technology and livelihood, physical education, health and music, and biological science students as well.

The researcher developed a tool inspired from Jerran (2012), with 20 items in all<sup>(4)</sup>. A 5-point Likert scale was used to determine student's response to their level of anxiety during mathematics class. The tool underwent reliability test prior to data collection. Responses were totalled; mean was determined and categorized accordingly its level of anxiety. Analysis of data were treated statistically using SPSS version 23.0. The categorical data were presented in the form of frequency or percentage<sup>(5)</sup>, while the numerical data were presented in the form of mean score<sup>(6)</sup>.

## RESULTS

The respondents' demographic variable revealed that most of the non-math major takers were females (70.59%), with ages 15 to 19 years old (72.94%). Most of the respondents' specialization were technology and livelihood education (46.47%), music and the arts (25.88%) and biological sciences (25.88%).

The overall anxiety score of non-mathematics major students was (M)=2.78 and acknowledged that they sometimes feel anxious during classroom encounter. The result further indicated that students become more anxious when asked during oral examination. Other notable feature was that respondents were sometimes fearful especially on written tests and board-related trials.

## DISCUSSION

The respondents' demographic and the respondents' specialization confirmed the study of Ng (2012) that mathematics is still greatly represented by men represents masculinity, since programs known to having more mathematics courses are dominated by men. Programs like engineering and statistics are among of those, which were highly preferred by men. Women on one side were also known to opt for economics, livelihood, language and social sciences<sup>(7)</sup>.

The findings were similar to that of Hlalele (2012) that students felt being panic when they required to solve mathematical problems, becomes helpless and experienced mental paralysis at the moment. The anxiety brought by these experiences also led to discomfort which fear and nervousness are associated<sup>(8)</sup>.

More than half (63.4%) of the respondents replied that they were always anxious whenever mathematics class is conducted, while others (27.1%) seldom displayed anxiety during classes, and (9.4%) never experienced any anxiety at all. Anxiety according to scholars is mental and emotional anguish a student obtained while challenging oneself to learn the course. The tension and the feeling felt by the learner interfere and cause delay in learning and worse, poor absorption of the subject matter as numbers confronted and solving of mathematical problems becomes apparent.

Older students (20 years old and above), expressed that they were more anxiety than younger students on the average, with a mean score of *Molder*= 2.98 and *Myounger*= 2.73, respectively. The findings supported the claim of Shore (2005) that the older the age of the person is, the more anxious he becomes. The fear of mathematics can be traced back since the student's first exposure to instructional mathematics. Due to his old age, pressure among peers triggered one to learn less the concepts to be understood. As the student increases his age and with constant pressure may it be from peer, environmental setup, or family's expectation, the cycle with an anxious student continually exposed him to the inability to learn, thus will avoid the subject or putting a little effort, show less interested and leaving considerable gaps in mathematics development<sup>(2)</sup>.

About measuring the distribution of respondents' anxiety level to mathematics based on their specialization, those who majored Technology and Livelihood Education (TLE) were the most anxious (72.7%), while both respondents from the Music, Health and Physical Education (MAPEH) students and Biological Sciences expressed sometimes to always anxious responses (63.9%). The role of the teachers this time is challenged in terms of how the subjects are delivered, thus creating favourable academic atmosphere and to set realistic targets among students. The students were commonly doing memorization, hence not at all times the answers were taken from and in the mind, however expected to solve a mathematical problems in a wide variety of academic settings<sup>(9)</sup>.

In this study, it was found out that the level of anxiety among non-mathematics major students has no significance among respondents' age groups ( $p=.674$ ), and furthermore, no relationship is seen to be associated between the level of mathematics anxiety among students from different program specialization ( $p=.782$ ). The results of this analysis indicated that the age, gender and the program are not predictors of anxiety levels. This contradicts the previous findings observed that demographic variables were good predictor of the students' anxiety levels<sup>(10)</sup>.

## CONCLUSION

Based from the findings, the following recommendations are developed: (a) different teaching styles and strategies must be utilized in order to effectuate learning among students, (b) teachers must impose a non-threatening environment, where active participation is encouraged to learn mathematics, and (c) for future study, the researcher proposes to determine factors affecting anxiety so that interventions can be crafted as well.

## REFERENCES

1. Tobias S. Overcoming Math Anxiety. New York: W.W: Norton Company; 1993.
2. Shore K. Dr. Ken Shore's Classroom Problem Solver Math Anxiety. 2005.
3. Sena, Whitaker, Lowe, Patricia, Lu, Steven. Significant Predictors of Test Anxiety Among Students with and without Learning Disabilities. Journal of Learning Disabilities. 2007;40(4):360-376.
4. Jerran's Math Centre. Instrument of Anxiety Level Measurement. 2012.
5. Nugroho HSW. Descriptive Data Analysis for Categorical Data (Analisis Data Secara Deskriptif untuk Data Kategorik). Ponorogo: Forum Ilmiah Kesehatan (FORIKES); 2014.
6. Nugroho HSW. Descriptive Data Analysis for Numerical Data (Analisis Data Secara Deskriptif untuk Data Numerik). Ponorogo: Forum Ilmiah Kesehatan (FORIKES); 2014.
7. Ng L. Mathematics Anxiety in Secondary School Students. 2012.
8. Hlalele D. Exploring Rural High School Learners' Experience of Mathematics Anxiety in Academic Settings. South African Journal of Education. 2012;32(3).
9. Leppävirta J. The Impact of Mathematics Anxiety on the Performance of Students of Electromagnetics. Journal of Engineering Education. 2011;100(3):24-443.
10. Eiselen R, Strauss J, Jonck B. A Basic Mathematical Skills Test as a Predictor of Performance of Tertiary Level. South African Journal of Higher Education. 2007;21(1):38-49.