

Outside school real life problems education essay



**ASSIGN
BUSTER**

Chapter 1

Introduction

Outside school, real-life problems and situations for which mathematical knowledge may be useful often do not present themselves in such familiar forms. The individual must translate the situation or problem into a form that exposes the relevance and usefulness of mathematics. If students are unpracticed at such a process, the potential power of mathematics to help deal with the situations and problems of their life may not be fully realized and may also result to problems.

Researches have shown that majority of students are experiencing problems in mathematics. The importance of mathematics is likely neglected because of students' performance over the subject (Kulak, 1993).

Globally, almost all students are complaining about failure in mathematics because of fear over the subject. (Betz, 1978; cited by Zakaria, 2010) thus, resulting to negative attitude about the subject. This condition is known mathematics anxiety (Fleming; 2010) which is one attitude that could be present to students. According to a research conducted in Florida, the percentage of students who failed in math increases (<http://www2.tbo.com/content/2009/oct/21/college-students-need-help-required-math-classes/news-breaking/>).

According to Tobias (1993; cited by Philips, 2010), millions of adults are blocked from professional and personal opportunities because they fear or perform poorly in mathematics, these negative experiences remain throughout their adult lives.

<https://assignbuster.com/outside-school-real-life-problems-education-essay/>

Math apprehension can cause tears of frustrations (Sollesta, 2007). A student who has anxiety over math gets upset whenever there is an assignment. They are having no know-how about their math lesson. This could result to ignorance of numbers which could lead to struggles in simple subtraction and addition.

In the Philippines, Filipino students are having problems when it comes to math proficiency (Malipot, 2009). In fact, only a few percent crossed the 75-percent level in math in the 2006 National Achievement Test (http://www.undp.org.ph/?link=news&ws_id=231&fa=1). In addition, A number of students are dropping mathematics aside from science courses usually before and even after examination (E. Senajon et al; in www.philjol.info/index.php/EACRB/article/viewPDFIntersritial/...1286). This is an indication of an existing perennial problem because of math anxiety that has been overlooked by concerned offices and department.

The problem of mathematics attitude leads to the formulation of different strategies to induce the interest of the students to study mathematics. In fact, the Department of Education (Ronda, 2009) created a strategy to encourage public school children to read as well as appreciate mathematics.

On the other hand, negative perception on mathematics can lead to lack of self-confidence to most Filipino students (Chua, 2006), which is perhaps a greatest obstacle to learning because beliefs govern a person. The belief that they cannot do something may push students unable to perform a task of which they are truly capable.

Locally, particularly in Cor Jesu College, according to the Division of Business and Accountancy Department, most students fail in mathematics subjects.

This research is conducted for the purpose of knowing the relationship of mathematics performance and mathematics performance of the first year Bachelor of Science in Accountancy students.

Theoretical Framework

This study is anchored with Cognitive-Gestalt theory. According to Burns (1995; cited in http://www.brookes.ac.uk/services/ocsd/2_learn/theories.html) the emphasis of this theory is on the importance of experience, meaning, problem-solving and the development of insights. Which proves that the performance of the student depends on their experiences either at home or in school and how they give meaning to it.

In the aspect of teacher's behavior and its strategy, Weiner's attribution analysis supposes that students' functioning is affected by the teachers' emotional and behavioral reactions (Stipek, 2002; p-73) which means, students' performance in the classroom can be brought about by teacher's behavior or approach towards the students and the subject itself. In addition, Weiner's attribution analysis brings in clear beliefs that the classroom is the place where judgment is conveyed, not only when it comes to students' behavior but also the teacher's response toward the students (Stipek, 2002; p-73). Silva, Tadeo, Delos Reyes, & Dadigan (<http://math.usm.my/research/OnlineProc/ED12.pdf>, 2009), assume that despite how knowledgeable the teachers are in teaching math, it is still not enough to teach the students and integrate that knowledge towards learning.

On the other hand, performance in mathematics can also be rooted from anxiety. According to Stodolsky (1975; cited by Stipek, 2002) mathematics instruction that is fostered in students saying that mathematics is something that is learned from an authority which cannot be figured out on one's own. Stodolsky supposes that the students perceive the subject as difficult to study on ones ability and rather needing an authority to learn the subject . This authority is the teacher as mentioned by Stodolsky.

The conceptual framework of the study elaborated the relationship between Mathematics Attitude (independent variable) which was measured into three dimensions: (a) Cognitive dimension, (b) Behavioral dimension, and (c) Affective dimension; and Mathematics Performance of Bachelor of Science in Accountancy Freshmen, school year 2010-2011 in the subject, College Algebra and Accounting 1. The See Fig. 1

Conceptual Framework

Independent Variable Dependent Variable

Mathematics Attitude

Affective Dimension

Behavioral Dimension

Cognitive Dimension

Mathematics Performance in

College Algebra

Accounting 1

Fig. 1. Conceptual Paradigm of the Study

Statement of the Problem

This research was examined the relationship between mathematics and mathematics attitude and mathematics performance of Bachelor of Science in Accountancy (BSA) freshmen, school year 2010-2011.

Specifically, it will also attempt to find the answers of the following sub-problems:

What is the profile of the students' mathematics attitude in terms of:

Affective,

Behavioral, and

Cognitive?

What is the students' mathematics performance in subjects:

College Algebra and

Accounting 1?

Is there a significant relationship between mathematics attitude and mathematics performance ?

Hypothesis

Ho: There is no significant relationship between mathematics attitude and mathematics performance.

Significance of the Study

The importance of this study is to guide the following people:

Students. The result of this study will help the students in knowing the possible reasons why they are anxious in math.

Parents. The outcome of this study will help the parents know the possible reason for their child's failure in math. It will be helpful for them to be cautious with their child's performance.

Teachers. The findings if this study will serve as a manual for the teachers particularly math teachers in determining what strategy to use knowing the information given in this study. The result of this research can be used as a basis to lessen, if not eliminate failures by undertaking changes and innovations in instructions and the curriculum in general. This will serve as an eye opener toward imbibing innovative ideas in teaching.

Psychologists and School counselor. The result of this study will be used as a basis for the school counselors as well as the psychologists to better understand why students behave or misbehave in math.

Administrators. The findings of this study can serve as one of the bases for curricular evaluation and planning. It will also guide the administrators in their conscious effort to undergo planned changes in drawing up systematic scheme of evaluating students' performance.

Researcher. The result of this study will provide a foundation for new research.

Scope and Limitations of the Study

The study is limited to freshmen students who are enrolled in the subject College

Algebra and Accounting 1 during the first semester, particularly the Bachelor of Science in Accountancy, Cor Jesu College confined to period of 2010-2011. The scope of the study is more likely for the benefit of the teachers regarding the percentage of students in terms of their mathematics attitude in relation to mathematics performance of the students.

Findings of the study would therefore, be true only for the subjects concerned and for the given period of time, although these could be used as basis for similar studies that would be conducted at the different colleges in the country.

Definition of Terms

The following terms were conceptually and operationally defined for better understanding on the study.

Affective dimension refers to the emotional aspect of attitude which involves in the students' perception about mathematics as a subject and as an application.

Behavioral dimension refers to the action aspect of attitude which concerns mathematics as a subject and as an application.

Cognitive dimension refers to the mental aspect of attitude which concerns the thinking process and beliefs about mathematics as a subject and as an application.

Cor Jesu College refers to the premier catholic institution in Southern Mindanao, particularly located in Digos City, Davao del Sur.

Mathematics attitude refers to the students' reaction towards mathematics as a subject and as an application. Specifically determined into three dimensions: (a) cognitive, (b) behavioral, and (c) affective.

Mathematics performance refers to the students' grade point average in mathematics particularly in subjects College Algebra and Accounting 1.

Mathematics Attitude and Mathematics Performance refers to the relationship of students' attitude towards mathematics and the grade point average of the students in College Algebra and Accounting 1.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents topics on Attitudes Towards Mathematics, Mathematics Performance, and the relationship of Mathematics Attitude and Mathematics Performance as related literatures and studies.

Related Literature

Articles and some write-ups concerning Mathematics Attitude, Mathematics Performance, and the relationship between Mathematics Attitude and Mathematics Performance are abundant.

Mathematics Attitude

Affective. It refers to student's feelings about mathematics, aspects in the classroom, or about themselves as learners of mathematics. In addition, there are several ways affective variables are related to mathematics learning. It is likely that a student who feels very positive about mathematics will achieve at higher level than a student who has a negative attitude toward mathematics (<http://www.jstor.org/pss/27542096>). It is a phenomenon that is often considered when examining students' problems in mathematics (Hopper, 2010). On the other hand, Chua (2006) supposes that math attitude is a product of a teaching strategy. At first, anxiety may not take place. Skills which are developed based on drills, practice, and memorization seem rewarding to teacher and student alike. When lessons become more advanced and more complicated, the number of points to be memorized gives an impossible burden to students' memory. The student would then feel that he has reached a stage at which his apparent success deserts him. Here an anxiety-provoking situation starts to confront the

<https://assignbuster.com/outside-school-real-life-problems-education-essay/>

learner. The harder the student tries, the worse he/she performs because the students will inevitably use the only approach he/she knows, which is mathematics.

Cognitive. According to Reyes (cited in, <http://www.jstor.org/pss/27542096>) Learning mathematics is a cognitive endeavor Mathematics is believed as an exceptionally difficult subject that everybody needs some knowledge acquired during the primary and middle stage will suffice. Its study requires special ability and intelligence (Sidhu, 1995).

The importance of math is likely neglected because of students' performance in the subject. The majority of students referred for school psychology services are experiencing some academic problems. Although reading skills deficits are the common of these academic problems, researches have shown that the majority of students experiencing problems in mathematics (Kulak, 1993).

Malipot (2009) believes that teachers and the government (Sabater, 2006) can help students in improving their ability in the field of mathematics. Dr. Balmaceda (Garcia, 2007) dispels the popular misconception that math is only about quantities (how many). Most fail to see the creative aspect of mathema

Chapter 3

METHODOLOGY

This chapter presents the design, setting, participants, measure, procedures, and data analysis.

Design

This study made use of descriptive-correlation design (Ariola, 2006) since the aim of the study was to determine whether or not there is a relationship between attitudes towards mathematics and mathematics performance.

This study determined the significant relationship between attitudes towards mathematics and mathematics performance of the Bachelor of Science in Accountancy freshmen students who were enrolled in College Algebra and Accounting 1 during the first semester. The independent variable was the mathematics attitude, which has sub-variables namely: cognitive, behavioral, and affective. Furthermore, the dependent variable of the study was mathematics performance which was determined from the final grades of the respondents in College Algebra and Accounting 1

•

Setting

The study was conducted in the premise of Cor Jesu College campus located in the City of Digos, Province of Davao del Sur. The questionnaires were given to respondents who were located in the campus.

Participants

The participants of the study were the randomly selected Bachelor of Science in Accountancy freshmen students who took up College Algebra and Accounting 1 in the first semester A. Y. 2010-2011.

The sampling procedure was done based on random selection from total population of the target group which is 155. Slovin's formula (Ariola, 2006) was used to determine the sample size using the following formula:

<https://assignbuster.com/outside-school-real-life-problems-education-essay/>

$$n = \frac{N}{1 + Ne^2}$$

$$1 + Ne^2$$

Where;

n = sample size

N = total size

e = desired margin of error (0.05)

Thereafter, the respondents were selected using the lottery method (Ariola, 2006). The total population was arranged sequentially and assigned numeral identifications. Corresponding numbers were marked on separate tabs and were put into a container. Each block has its separate set of numbers. This is to ensure that every individual has the same chance of being chosen as every other individual (Ariola, 2006).

Measures

The research instrument used was a 50-item questionnaire used in the study was retrieved from the study of Acejalado (2001), Limjap (1996), and Dela Rosa (1990) entitled as Mathematics Attitude Scale (MAS). The survey questionnaire was composed of statements based from the dimensions of attitude, namely: cognitive dimension, behavioral dimension, and affective dimension of students' perception about mathematics as a subject and as an application.

The questionnaire is composed of fifty-item statements which are grouped into three. Statements 1 to 16 are in the affective domain, statements 17 to <https://assignbuster.com/outside-school-real-life-problems-education-essay/>

35 are in the behavioral domain, and statements 36 to 50 are in the cognitive domain.

The respondents were asked to evaluate the statements through checking using the following measurement (Likert's scale): Strongly agree- 1, Disagree- 4, Agree- 2, Strongly disagree- 5, and Neutral- 3.

Procedure

A letter of permission to the Dean of College requesting the approval for the permission to conduct a research study in the college department. After which, another letter of permission submitted to the Dean of the Division of Business and Accountancy, (DBA). After having the approval, a requisition letter was sent to the head registrar for the determination of the total population of DBA freshmen students.

The data was gathered from the concerned institutions and offices such as the College Dean and the Dean of DBA through a formal letter. After having the approval, the names of the students who took up College Algebra and Accounting 1 during the first semester were asked from the school registrar through a formal consent. After which, random sampling was made to identify the respondents.

The instrument administration was given in January 2011 based from the availability of the respondents. The questionnaire was follow-upped every now and then.

After gathering all the answered questionnaire, each item was tallied in accordance to each respondent.

Data Analysis

The study made use of descriptive-statistic in describing the profile of students' mathematics attitude using the weighted mean of the different dimensions of mathematics attitude and the Grade Point Average in subjects College Algebra and Accounting 1. Moreover, Pearson R also known as Pearson Product Moment Correlation was used to determine the relationship between mathematics attitude and mathematics performance.

CHAPTER 4

RESULTS AND DISCUSSIONS

CHAPTER 5

SUMMARY, CONCLUSION, AND RECOMMENDATION

This chapter contains the summary of findings, conclusions, and recommendations of the study. The findings are summarized based on the results drawn from the questionnaire. Conclusions are based from the result of the data gathered. Recommendations are offered to improve the strategies of enriching the interest of the students in learning mathematics.

Summary

The study was conducted to determine the relationship between mathematics attitude and mathematics performance. The study attempted to answer the following questions: firstly, what is the profile of students' mathematics attitude in terms of affective, behavioral, and cognitive? Secondly, what is the profile of students' performance in College Algebra and Accounting 1? Lastly, is there a significant relationship between mathematics performance? Moreover, a survey questionnaire was used to gather data.

There were 113 sample populations that were randomly selected. Most of the respondents projected a low mathematics attitude and a satisfactory overall GPA result.

Conclusion

The Bachelor of Science in Accountancy