

Attitudinal Dimensions in Studying Mathematics of Grade School Pupils

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Received: May 4, 2019; **Accepted:** May 11, 2019; **Published:** May 15, 2019

Abstract: Mathematics encompasses all aspects of human life. It is unquestionably important in education to help students and people from all walks of life perform daily tasks efficiently and become productive, well-informed, functional, independent individuals and members of a society where mathematics is a fundamental component. Hence, this study determined the attitudes towards enjoyment and value of Mathematics of Grade Six pupils in Venancio Trinidad Sr. Memorial School in Talisay, Batangas. The respondents of this study were composed of 50 Grade Six pupils for the School Year 2010-2011. The descriptive method of research was used in this study with questionnaire as the main data-gathering instrument. Mean was applied to analyze some findings in this endeavor. From the study, it was found out that the computed mean obtained in the respondents' attitude towards enjoyment of mathematics was positive while in terms of value of mathematics, it was interpreted as highly positive. With this, it was suggested that the pupils' achievement in Mathematics needed to be more strengthened so that pupils can acquire mathematics concepts and processes which they will need in their life. In addition, it was suggested that Mathematics teacher should make Mathematics lessons more enjoyable by using games and interesting activities. Moreover, they should continue to relate mathematical concepts and processes to actual life situations. They can do this by using problems that have bearing to real life practices. Mathematics teachers should also give their pupils more meaningful tasks and activities that will increase their interest to learn mathematics.

Keywords: Attitudinal Dimensions, Enjoyment of Mathematics, Value of Mathematics.

Citation: Nora V. Marasigan. 2019. Attitudinal Dimensions in Studying Mathematics of Grade School Pupils. International Journal of Recent Innovations in Academic Research, 3(5): 110-114.

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1. Introduction

Mathematics is a creative discipline which has applications in many fields and has multiple uses in everyday life. Its language is international and its importance is universally recognized. Mathematics has developed over time as a means of solving problems. It is a tool for functioning in the scientific world and is a system in its own right. Mathematics as a subject is more than just the science of numbers taught by teachers in schools and either enjoyed or feared by many learners. It plays a significant role in the lives of individuals and the world of society as a whole.

It is an essential discipline recognized worldwide, and it needs to be augmented in education to equip students with skills necessary for achieving higher education, career aspirations, and for attaining personal fulfillment.

Mathematics equips students with uniquely powerful ways to describe, analyze and change the world. It can stimulate moments of pleasure and wonder for all students when they solve a problem for the first time, discover a more elegant solution, or notice hidden connections. Students who are functional in mathematics and intellectually capable are able to think independently in applied and abstract ways, and can reason, solve problems and assess risk. It is a trademark that in teaching Mathematics, the approach is anchored with too much problem to analyze, numbers to compute and measurements to find (Marasigan, 2018).

Since mathematics encompasses all aspects of human life, it is unquestionably important in education to help students and people from all walks of life perform daily tasks efficiently and become productive, well-informed, functional, independent individuals and members of a society where mathematics is a fundamental component. In the light of immense growth and expanded application of mathematics, the quality and amount of mathematics education provided by most of the schools appears antiquated and inadequate to meet educational demands of the society. It is apparent that the need of education that will enable youth of today to live intelligently in a world they are to live will sustain them for lifelong learning and can travel upon their own.

In order to be prepared for potential success in the world today and in the future, knowledge of mathematics is important. Thus, the acquisition of mathematical knowledge and skills should be given emphasis. More intensive efforts must be exerted by mathematics teachers in order to bring this about. Affective factors of achievement should also be recognized for they may have direct bearing on the achievement of students in the subject.

Attitude is an individuals' prevailing tendency to respond favorably or unfavorably to an object, person or group of people, institution, or event. Most authorities regard attitudes as more fundamental predispositions, opinion as specific manifestations of underlying attitudes. Attitudes themselves are product of cultural, social and psychological factors affecting each individual (American Encyclopedia 2000).

At present, many teachers use highly sophisticated teaching aides and materials and employ the newest and most appropriate teaching methods and techniques but they still fail in bringing about greater and more efficient learning. This may be because they do not acknowledge the students' attitudes which show a clear picture of their likes and dislikes, shortcomings and predicaments with regards to the subject. Teachers and other mathematics educators generally believe that children learn more effectively when they are interested in what they learn and that they will achieve better in mathematics if they like the subject. Therefore, continual attention should be directed towards creating, developing, maintaining, and reinforcing positive attitude towards mathematics.

The researchers believe that several dimensions of attitudes towards studying mathematics are deemed significant to investigate. A probe on this affective component of achievement is needed to help pupils build a more open mind about learning mathematics. Encouraged by this idea, the researchers would like to explore on some dimensions of attitude towards studying mathematics with the end view of determining its implication to the teaching of mathematics in the elementary level.

1.1. Objectives of the Study

This study was an attempt to determine the assessment on the attitudinal dimensions in studying Mathematics of Grade Six pupils during the School Year 2010-2011. Specifically, it attempted to answer the following questions: What are the attitudes of the respondents towards mathematics as measured along the following dimensions: enjoyment of mathematics and value of mathematics; and what is the implication of the findings of this study to the teaching of Mathematics in the elementary level?

2. Methodology

The primary purpose of this investigation is to determine the attitudes of the respondents towards Mathematics as to enjoyment of mathematics and value of mathematics. For this reason, the descriptive method of research was employed. The respondents of the study were 50 Grade Six pupils in Venancio Trinidad Sr. Memorial School in Talisay, Batangas during the school year 2010-2011. Using the questionnaire, the researcher determined the pupils' attitudes towards Mathematics as to enjoyment and value with the following interpretation:

Scale	Mean Ranges	Verbal Interpretation
4	3.51 – 4.00	Strongly Agree/Highly Positive
3	2.51 – 3.50	Agree/Positive
2	1.51 – 2.50	Disagree/Negative
1	1.00 – 1.50	Strongly Disagree/Highly Negative

Results and Discussion

This presents the data gathered together with the corresponding analysis and interpretation. The data are presented in tabular form organized in a sequential manner, following the order of the specific problems posed at the beginning of the study.

Attitudes of the Respondents toward Mathematics

The succeeding tables present the respondents' attitudes toward Mathematics as to enjoyment and value. It reveals the computed mean for each statement with its corresponding interpretation.

Table 1. Attitudes of the Respondents as to Enjoyment of Mathematics

Statements	Mean	Interpretation
1. I appreciate going beyond the assigned work in my mathematics class.	3.14	Agree
2. I like to explore more in the subject.	3.24	Agree
3. I love studying mathematics in school and at home.	3.28	Agree
4. I devote more time in solving problems in Mathematics.	3.22	Agree
5. I feel comfortable when I attend my Mathematics class.	3.20	Agree
Composite Mean	3.22	Positive

It can be observed in Table 1 that all items have a mean ranging from 3.14 - 3.28. The highest mean was 3.28 while the lowest was 3.14, both interpreted as Agree. Generally, the table revealed a composite mean of 3.22 which was interpreted as *Positive*. It means that the pupils have favorable attitude toward Mathematics. This finding is somewhat similar to Espino's study (2000) where pupils exhibited moderately favorable attitude.

Table 2. Attitudes of the Respondents as to Value of Mathematics

Statements	Mean	Interpretation
1. Exercises in mathematics help enhance skill in thinking through problem solving activities.	3.67	Strongly Agree
2. Mathematics develops my financial awareness especially in budgeting allowance.	3.58	Strongly Agree
3. Mathematics makes me become more creative.	3.46	Agree
4. Mathematics assists me in making decisions.	3.54	Strongly Agree
5. Mathematics guides me in solving real life problems.	3.48	Agree
Composite Mean	3.55	Highly Positive

It can be seen that the respondents' attitude in terms of value of mathematics achieved a composite mean of 3.55, which was interpreted as *Highly Positive*. This means that the respondents recognized the real value of mathematics and they have positive outlook toward the subject. This finding is parallel to the findings of the study by Espino (2000) which revealed favorable attitude of students towards Mathematics. Furthermore, Fianza (2004) stated that students had to accept the importance of mathematics in their daily lives.

Implication to the Teaching of Mathematics in the Elementary Level

This study was conducted to determine the attitudes of the respondents towards Mathematics along two dimensions. Knowing their attitude could somehow give the teacher enough information about the vital role of shaping and developing pupils' behavior about the subject. Attributed to the fact that pupils are aware of the usefulness of mathematics to their real life, they come to accept the significance of the subject and exert more effort to achieve better in that subject. Furthermore, Mathematics teachers should make mathematics lessons more enjoyable. This would require Mathematics teachers to be given further training and seminars on new strategies and new developments for them to be more enthusiastic in teaching the subject thereby making mathematics lessons more lively, interesting and enjoyable.

4. Conclusions and Recommendations

Based on the findings cited above, the research study has drawn the following conclusions: The respondents' attitude towards Mathematics as to enjoyment is positive while as to value of Mathematics, their attitude is highly positive. There is a need to give more attention to the teaching of Mathematics in the elementary level to improve the pupils' performance in the subject. Moreover, their attitude on the enjoyment dimension needs to be enhanced. In the light of the conclusions derived from the study, it is recommended that more meaningful tasks and activities that will increase the pupils' interest to learn Mathematics may be given. Mathematical games may also be included in the activities to make mathematics lessons more enjoyable. Further research may also be conducted involving other factors such as interest in the subject.

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