

Attitude of Secondary Students towards Basic Mathematics

Davidica Llorente- Avelino

Faculty Member, CapSU Burias Campus

Abstract- This descriptive-correlational study aimed to determine the attitude in Basic Mathematics of secondary students in Mambusao, Capiz. The participants included the proportionately and randomly selected two-hundred students enrolled in David Moises Memorial High School, Saint Catherine Academy and Panay State Polytechnic College (now Capiz State University). Data-gathering instrument utilized was a researcher-made questionnaire about the Basic Mathematics Attitude Scale. Personal data sheets for students were also included. Frequency counts, percentages, mean and standard deviations were used for the analysis of the descriptive data while t-test for independent samples and One-way Analysis of Variance were used to analyze the inferential tests set at .05 alpha level. All numerical data were processed using the Statistical Package for Social Science software. Findings showed that students had a positive attitude towards Basic Mathematics. When classified as to student and teacher-related factors, all students have positive attitude. There is no significant differences in the students' attitude towards basic mathematics when classified according to sex, teachers' teaching experience, and teachers' in-service training in mathematics, family size and parents' occupational status. However, there is significant differences in the attitude of the students towards Basic Mathematics when classified according to family income and parents' educational attainment and teachers' educational attainment.

Index Terms- Attitude, Basic Mathematics, Secondary students

I. INTRODUCTION

Attitudes can be seen as more or less positive. A positive attitude towards mathematics reflects a positive emotional disposition in relation to the subject and, in a similar way, a negative attitude towards mathematics relates to a negative emotional disposition (R. Zan and P. Martino, 2008 as cited by Mata, et.al (2012).

Generating positive attitudes towards mathematics among students is an important goal of mathematics education in many jurisdictions (TIMSS 1999 Mathematics Benchmarking report). In assessing Mathematics performance and potential of students, attitudes towards Mathematics and Mathematics learning are frequently cited as factors contributing to success. Several studies have shown that positive attitudes are conducive to good performance. However, an individual's attitude towards Mathematics can be influenced by many factors. It is generally held that females exhibit less positive attitudes towards mathematics than males do. The foundation of success,

regardless of our chosen field, is attitude (Mahanta and Islam, n.d).

II. RESEARCH ELABORATIONS

This study was conducted at Panay State Polytechnic College (now Capiz State University), Burias Campus, Mambusao, Capiz. The participants of the study were the two-hundred proportionately and randomly selected bonafide students of David Moises Memorial High School, Saint Catherine Academy and Panay State Polytechnic College (now Capiz State University). All mathematics teachers of the student-participants were initially interviewed as to their educational attainment, number of years in teaching and number of hours in in-service training in mathematics

The research instrument consists of Part I elicited information about the student's name, sex, family size, family income, parents' educational attainment, parents' occupational status, teachers' educational attainment, teachers' teaching experience and teachers' in-service training in mathematics. Part II was composed of researcher-made thirty-item statement about Basic Mathematics Attitude Scale. It was validated by five jurors, trial-administered to thirty students and with a reliability of .7253. The responses in each of the item in the instrument was answerable with any of the following responses: always, frequently, sometimes, seldom and never. Attitude of students in Basic Mathematics was interpreted using the scale: 1.00 to 2.99 (negative) and 3.00 to 5.00 (positive).

The data gathered were subjected to descriptive analysis such as frequency count, mean, standard deviation and percentage. The one-way analysis of variance and t-test were used to determine differences.

III. RESULTS OR FINDINGS

Of the total 200 student-participants, majority (73 or 36.50%) fall on medium-sized families comprising of 4-6 children, 64 or 32% fall on small-sized families consisting of 1-3 children, and 63 or 31.50% belonged to large family size comprising of 7 children and more. Nearly sixty percent (119 or 59.50%) belonged to low income families, 62 or 31% with moderate income, and 19 or 9.50% fall on high-income category. One-half (100 or 50%) of the sample-students had parents who finished high school, 68 or 34% were college graduates and 32 or 16% had attained elementary level. Majority (121 or 60.50%) of the sample-students had either of the parent was working, 74 or 37% had parents who were not working, and 5 or 2.5% had both of the parents were working. Majority (188 or 94%) of the

student-samples were mentored by BS with MA units faculty in their Basic Mathematics subject while only 12 or 6% of the sample size were taught by master's degree holder. Majority (103 or 51.50%) of the sample-students were taught by teachers who had served the teaching profession for a short period of time (below 10 years) while 97 or 48.50% of the sample students were taught by teachers with longer years of teaching experience (10 years and above). Majority (112 or 56%) of the participants were taught by teachers with adequate (50 hours and above) in-service trainings in Mathematics while 88 or 44% were taught by those teachers with inadequate (below 50 hours) in-service training in Mathematics.

Student participants had positive attitude towards basic mathematics when taken as an entire group and when classified according to sex, family size, family income, parents' educational attainment, parents' occupational status, teachers' educational attainment, teachers' teaching experience, and teachers' in-service training in mathematics. Students' attitude toward Basic Mathematics significantly differed when grouped according to their teachers' educational attainment- in favor of those students whose teachers had earned units toward master's degree, family income- in favor of those students belonging to average or high-income families, and parents' educational attainment- in favor of those students whose parents were college students but not by their sex, teacher's teaching experience, teachers' in-service training in Mathematics, family size and parents' occupational status

IV. CONCLUSIONS

1. When classified as to student and teacher-related factors, all students have positive attitude towards Basic Mathematics.

2. There is no significant differences in the students' attitude towards basic mathematics when classified according to sex, teachers' teaching experience, and teachers' in-service training in mathematics, family size and parents' occupational status. However, there is significant differences in the attitude of the students towards Basic Mathematics when classified according to family income and parents' educational attainment and teachers' educational attainment.

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AUTHORS

First Author – Davidica Llorente- Avelino, Faculty Member, CapSU Burias Campus