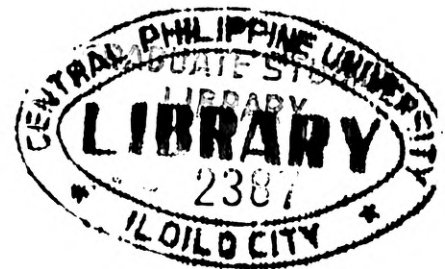


**MATHEMATICS ACHIEVEMENT, MATH SELF-EFFICACY AND ATTITUDE  
TOWARDS MATHEMATICS: THEIR INFLUENCE ON K-12 CAREER  
PREFERENCES OF GRADE 10 STUDENTS**

**A Thesis**

**Presented to  
the Faculty of the College of Education  
Graduate Programs  
Central Philippine University  
Jaro, Iloilo City**



**In Partial Fulfillment  
Of the Requirements for the Degree  
MASTER OF ARTS IN EDUCATION  
(Mathematics)**

**ROGER ANTONIO ALAVATA  
November 2016**

# **MATHEMATICS ACHIEVEMENT, MATH SELF-EFFICACY AND ATTITUDE TOWARDS MATHEMETICS: THEIR INFLUENCE ON K-12 CAREER PREFERENCES OF GRADE 10 STUDENTS**

**By**

**ROGER ANTONIO ALAVATA**

## **ABSTRACT**

This study investigated the influence of mathematics achievement, math self-efficacy and attitude towards mathematics on the K-12 career preferences of Grade 10 students. This is a descriptive-relational study which made use of the one-shot survey design. One hundred twenty eight (128) randomly selected Grade 10 students of a private school in Iloilo City enrolled during school year 2015-2016 served as the research subjects.

The Mathematics Self-Efficacy Scale (MSES) and Mathematics Attitude Scale were administered to measure the students' mathematics self-efficacy and attitude towards mathematics respectively. The mean of the students' final grades in their Grade 8 and 9 math subjects was used as the measure of their mathematics achievement.

The Chi-square test and Phi Correlation Coefficient were used to determine if there exist a significant relationship among the variables of the study. The Cramer's V was used to describe the magnitude or strength of the relationship between variables and the test of significance was set at 5% level.

The findings showed that the Grade 10 students had satisfactory math achievement. They had low math self-efficacy and unfavorable attitude towards

mathematics. The findings of this study revealed that there is a significant relationship between mathematics self-efficacy and attitude towards mathematics. A significant relationship was also found between mathematics achievement and attitude towards mathematics. However, no significant relationships was found between attitude towards mathematics and K-12 career preferences of Grade 10 students, between math self-efficacy and K-12 career preferences, between mathematics achievement and K-12 career preferences, and between math self-efficacy and K-12 career preferences when their attitude towards math was controlled, and between math achievement and K-12 career preferences when their attitude towards mathematics was controlled.