# STUDENTS' ATTITUDE TOWARDS MATHEMATICS AND THEIR EFFECT ON LEARNING AND ACHIEVEMENT.

## A CASE STUDY IN MANAFWA AND NAMISINDWA DISTRICT

BY

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This research report is submitted to the Faculty of Science and Education, Mathematics Department in partial fulfillment of the requirements for the award of the degree of Bachelor of Science Education of Busitema University.

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### APPROVAL

This research report has been submitted for examination with the approval of my university

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.....

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Date

### DECLARATION

I WATSISI BEATRICE declare that this project work was done by me and to the best of my knowledge has never been submitted by any person at any institution.

NAME: WATSISI BEATRICE

SIGNATURE: ......DATE.....

### DEDICATION

I dedicate this piece of work to my parents Mr. WEPUKHULU SAMUEL and Mrs. ELISABETH WEPUKHULU for their efforts and sacrifice towards my upbringing and paying of school dues, and as well providing the basic needs of life.

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#### ABSTRACT

The attitude of students towards mathematics is a factor that is known to influence students' learning and achievement in the subject. The purpose of this study was therefore to determine the effect of students' attitude towards their learning and achievement in mathematics by first trying to establish their attitudes regarding the subject and finding out the factors that influence these attitudes. The study would provide some of the learners' behaviors as a result of their attitude towards the subject and would go a long way in helping the learners to develop a positive attitude towards the subject which is a recipe for better and learning performance and achievement in the subject. The study involved some five secondary schools in Manafwa and Namisindwa districts and the target population were mathematics teachers and form four students. The purposive and random samplings were employed in selecting the schools, students and teachers from those schools respectively with the use of student's and teachers' questionnaires as a method of data collection. The questionnaires were designed to capture some of the students' and teachers' perceptions and beliefs regarding which were grouped according to themes including difficulty, liking, usefulness and future expectations regarding the subject, learners' mathematical ability and achievement. The students and teachers responded to the questionnaires and data was collected, calculated and converted into percentages. The study found out that most students had positive attitude towards mathematics and that they perceived mathematics as doable, learnable and important yet this did not translate to good grades. Also, teachers had some challenges in teaching mathematics which included negative attitude towards mathematics by most of the students particularly girls, this was a common challenge to all teachers who responded to the questions. The findings also show that perception and beliefs, perceived learning abilities and competencies and previous performances of students in mathematics affected their level of motivation leading to low outcomes.

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#### **CHAPTER ONE**

#### **1.0 INTRODUCTION**

#### **1.1 GENERAL INTRODUCTION.**

Learning of mathematics among students involves thinking and reasoning, but it is dependent on the students' attitude towards mathematics (Anthon, 2007). Attitude towards mathematics can be positive or negative and plays a crucial role in learning process of mathematics. Researchers concluded that positive attitude towards mathematics leads to students' success in mathematics. Attitude causes effect on performance and achievement of mathematics among students at schools (Ma and Xu, 2004).

Han and Carpenter (2014) state that attitudes consist of cognitive, affective and behavioral reactions that individuals display towards an object or the surrounding based on their feelings and interest;

The cognitive component of attitude is what an individual think or believe about mathematics (Maio, 2009).

The affective component of attitude is the feeling of an individual associated with loving mathematics (Ingram, 2015); thus, the affective component is the source of driving the engagement of students towards mathematics. Furthermore, the affective aspect is also influenced by the belief formed from cognitive component of attitude, which create a mindset that becomes constant over time and influence the feeling of students towards learning of mathematics. As such the cognitive and affective components of attitude are interrelated and deeply interact with each other.

The behavioral aspect of attitude is the tendency to respond in a certain way towards learning mathematics (Haddock, 2009). This aspect of attitude is also influenced by affective attitude. Students who feel confident in doing mathematics are linked with being successful in mathematics; this is regarded as a positive behavior. But if students are not confident in doing mathematics, they may not experience success; this is regarded to as negative feeling. Hence the behavioral component of attitude impacts on the cognitive component of attitude as well.

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