

ANALYSIS OF THE FACTORS THAT INFLUENCE THE PERFORMANCE OF MATHEMATICS IN ORDINARY SECONDARY SCHOOLS: ACASE STUDY OF PETTA COMMUNITY ORDINARY SECONDARY SCHOOL, PETTA SUB COUNTY, WEST BUDAMA NORTH CONSITITUENCY, TORORO DISTRICT

 \mathbf{BY}

OLOWO CONARD

BU/UP/2017/1400

A DISSERTATION SUBMITTED TO THE DEPARTMENT OF MATHEMATICS,
FACULTY OF SCIENCE AND EDUCATION IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF SCIENCE EDUCATION
OF BUSITEMA UNIVERSITY

OCTOBER 2020

DECLARATION

I, OlowoConard, hereby declare that this repo	rt is my own original work and that it has never been
presented to any University, College or Institu	tion for any award of a diploma or degree.
Signature Date	e

APPROVAL

This project proposal has been submitted for ex	camination with the approval of my University
Supervisor	
Dr.Awichi Richard	Date

DEDICATION

To The Almighty God, my lovely mother Margret Aboth, my brothers especially Ochand Paul, Okun Stephen, and Okoth Moses and my sister BrigetAlowo, my friends Oloka John, OketchCharles, OketchDenis, KisuleJoseph, IsabiryeAyubu, Badaza George, Goobi, Steven, Esther, Musiimenta Catherine, Namusoke Robina, Angura Joseph, Asiku Francis and so on, you were my inspiration, challenge, and encouragement all the way through my graduate studies.

ACKNOWLEDGEMENTS

First, I thank God, for having helped me finish this study which represents a great achievement for my academic career. I wish to acknowledge my supervisor. Richard Awichifor his uplifting and positive words of encouragement at those times when I need it most. You are one who is always supportive of my work and encourages me to be the best I can. I appreciate the professional conversations as well as your ability to challenge me to keep growing and moving forward. I offer a sincere and special thank you for agreeing to support my theses defense and being a part of this research process. And my lecturers namely Ms. Nalule Rebecca, Ms Kyomuhangi Annet, Mr. Okiring Jackson, Mr. Stephen Kadedesyaand Ms. Nanyondo Josephine, Ms. Nabirye Topista for their valuable orientation, comments and recommendations throughout the development of my report. I also want to thank the mathematics class of Busitema University Faculty of Science and Education, my friendsEsther, MusiimentaCatherine, KomugishaRuth, NamusokeRobina, OketchCharles, OlokaJohn, KyotaleBrian, IsabiryeAyub, BrotherOchandPaulfor their support, and Collaboration, and for mentoring me during the research process. My appreciation also goes to my friends AsikuFrancis, Esther, OketchCharles, Oketch Denis who provided me with the necessary services such as photocopying, access to the internet, love and care during the production of this work.

TABLE OF CONTENT

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
LIST OF TABLE	viii
LIST OF FIGURES	ix
ACRONYMS AND ABBREVIATIONS	ix
ABSTRACT	xi
CHAPTER ONE	1
1.0 General Introduction	1
1.1 Background of study	1
1.1.1 Theoretical background	3
1.1.2 Conceptual background	4
1.1.3 Contextual background	4
1.2 Problem Statement	5
1.3 Objectives	6
1.3.1 General objective	6
1.3.2 Specific objectives	6
1.4 Research questions	7
1.5 Significance of the Study	7
1.6 Scope of the study	8
1.7 Limitation of the study	8
CHAPTER TWO	9
LITERATURE REVIEW	9
2.1 Introduction	9
2.2 The Essence of Mathematics Education	9
2.3 Methods of Teaching Mathematics	10
2.4 Student Attitude towards Mathematicsandteachers'	12
CHAPTER THREE	15
RESEARCH METHODOLOGY	15
3.1 Introduction	15

3.2 Research Design	15
3.3 Variables	15
3.4 Target Population	15
3.5 Sampling Technique and Sample Size	16
3.6 Data collection method	16
3.7 Data analysis	16
CHAPTER FOUR	17
RESULTS AND FINDINGS	17
4.1 Introduction	17
4.2 Student's personal factors that contribute to student performance in Mathematics	17
4.2.3 How do you access the examples in your Mathematics Textbook?	18
4.2.5 Is Mathematics a difficult subject by nature?	19
4.2.6 Is Mathematics essential for daily l	20
4.2.7 Would you do Mathematics or any other Mathematics related career after school	20
4.3 School based factors that affect the performance of mathematics in UCE	21
4.3.2Explains the work well	21
4.3.3 Teachers teach very fast	21
4.3.4; Concentrates on bright students only	22
4.3.5 Knows the subject very well	22
4.3.6 Responds rudely to students' questions	23
4.3.7 Gives homework, marks and returns the next day	23
4.4 General information on Teachers characteristics	24
4.4.1 Gender of teachers	24
4.4.2 Teachers teaching experience	24
4.5 Methods of teaching Mathematics	25
4.5.1 Lecture method	25
4.5.2 Small group discussion	26
4.6.2 Everybody can learn Mathematics	28
4.6.3 More practice can enhance understanding of Mathematics	28
4.7 Possible Causes of student's poor performance in Mathematics	29
4.8.1 What measures do you think can improve the performance of Mathematics?	30
CHAPTER FIVE	31

SUMMARY, CONCLUSION AND RECOMMENDATION	Error! Bookmark not defined.
5.1 Introduction	Error! Bookmark not defined.
5.2 Summary	31
5.3 Conclusion	31
5.4 Recommendations	34
APPENDIX 1	35
APPENDIX 2	37
APENDIX 3	42
REFERENCES	46

LIST OF TABLE

Table 4.1 Accessibility of the examples in Mathematics Textbook	Error! Bookmark not
defined.	
Table 4.2 Mathematics textbook	ookmark not defined.
Table 4.3 Understanding meanings and new concepts, words and formula	e in Mathematics 19
Table 4.4 Difficulty of mathematics subject by nature	19
Table 4.5 Is Mathematics essential for daily life Error! B	ookmark not defined.
Table 4.6 Would you do Mathematics or any other Mathematics related ca	reer after school 20
Table 4.7 Students attitudes towards Mathematics teachersError! B	ookmark not defined.
Table 4.8 Explains the work well	21
Table 4.9 Concentrates on bright students only Error! B	ookmark not defined.
Table 4.10 knows the subject very well	
Table 4.11 Responds rudely to students' questions	ookmark not defined.
Table 4.12 Gives homework, marks and returns the next day	
Table 4.13 Gender of teachers Error! B	ookmark not defined.
Table s4.14 Teachers teaching experience	24
Table 4.15 Lecture method	
Table 4.16 Small group discussion	26
Table 4.17 Problem solving method Error! B	ookmark not defined.
Table 4.18 Demonstrating method	27
Table 4.19 Mathematics teacher's attitudes towards Mathematics	
Table 4.20 Everybody can learn Mathematics	28
Table 4.21 More practice can enhance understanding of Mathematics Error	
Table 4.22 Teachers' qualification	
Table 4.23 Resources used in teaching Mathematics Error	
Table 4.24 Measures do you think can improve the performance of Mathematics.	30

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

UNEB Uganda National Examinations Board

PLE Primary Leaving Examination

UCE Uganda Certificate of Education

UACE Uganda Advanced Certificate of Education

O-LEVEL Ordinary level

A-LEVEL Advanced level

UPE Universal Primary Education

MoES Ministry of Education and Sports

NGOs Non Government Organizations

UNCST Uganda National Council for Science and Technology

ESSP 2004-2015: Education Sector Strategic Plan 2004-2015. Is a cost action plan for

Education in Uganda covering short and medium terms.

SESEMAT: Secondary Science and Mathematics Teachers Programme-a programme

funded by the Japanese International Cooperation Association to

encourage teaching and learning of science subjects in Uganda.

MOFPED: Ministry Of Finance Planning and Economic Development: the ministry

responsible for finance, planning and economic development in Uganda.

UNESCO: United Nations Education Scientific Cultural Organization- a United Nations

body responsible for science and cultural education.

ABSTRACT

The purpose of this research was to examine the factors affecting the performance in mathematics, of students at Ordinary Level in Petta community secondary school (Government Aided Secondary School), WestBudamaNorth constituency in TororoDistrict. The goals of the research were as follows; first, to determine the school based factors that influence the performance of students in UCE Mathematics at Petta Community secondary School, Petta Sub County, West Budama North Constituency, Tororo District.

Secondly, to find out student personal factors that influences the performance of students in UCE Mathematics at Petta Community secondary School, Petta Sub County, West Budama North Constituency, Tororo District. And thirdly to identify strategies that can be adopted to improve student poor performance in UCE Mathematics in the Ordinary secondary school level at Petta Community secondary School, Petta Sub County, West Budama North Constituency, Tororo District. The target population for this study was the Mathematics teachers and form four students in Petta Community secondary School. A sample of 60 was used to obtain information from both students and the Mathematics teachers, and 50 were used to collect data from students while 10 was administered to the teachers.

The study was conducted using the questionnaires which contained a series of questions which guided the researcher to get the required information from the respondents. The coded data was edited, organized, classified and presented using percentages and statistical approach. This helped in the proper organization and interpretation of data in tables and graphs. The study showed that, student's personal factors or attitudes are a major contributor to the poor performance of students in Mathematics. Teaching and learning materials including motivation of Mathematics teachers need to be well equipped by the school and encourage by government since they were the most important strategies or measures that can improve student's poor performance in Mathematics.