

**AN ANALYSIS OF PRACTICAL APPROACH OF TEACHING  
GEOMETRY IN PUBLIC PRIMARY SCHOOLS IN THOGOTO  
ZONE, KIAMBU COUNTY, KENYA**

BY

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E55/ CE/ 25872/ 2011

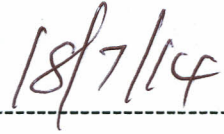
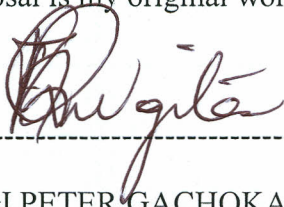
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2014



## DECLARATION

This proposal is my original work and has not been presented for a degree in any other university



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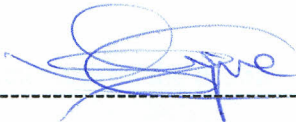


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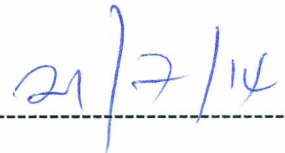
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# TABLE OF CONTENTS

<b>Content</b>	<b>page</b>
Title page-----	i
Declaration-----	ii
Table of contents-----	iii
List of tables-----	vi
List of figures-----	vii
List of abbreviations-----	viii
Abstract-----	x

## CHAPTER ONE

### INTRODUCTION

1.0 Introduction-----	1
1.1 Background to the study-----	1
1.2 Statement of the problem-----	6
1.3 Purpose of the study-----	8
1.4 Objectives of the study-----	8
1.4.1 Study hypothesis-----	8
1.4.2 Research questions-----	9
1.5 Significance of the study-----	9
1.6 The scope and limitations of the study-----	10

1.7 Assumptions of the study-----	11
1.8 Theoretical Framework-----	11
1.9 Conceptual framework-----	14
1.10 Operational definition of terms-----	16

## CHAPTER TWO

### LITERATURE REVIEW

2.0 Introduction-----	17
2.1 Concept of practical teaching-----	17
2.1.1 Practical learner centered versus teacher centered approach-----	18
2.2. Education and geometry teaching-----	20
2.3 Models of teaching geometry concepts-----	21
2.4 Theories guiding the study-----	22
2.4.1 Constructivism theory and geometry concepts teaching-----	22
2.4.2 Behaviorism learning theory and geometry learning-----	23
2.5 Teaching and learning strategies and geometry teaching-----	24
2.6 Organizing for effective teaching in geometry content in primary school-----	26
2.6.1 Teaching learning materials in primary level geometry teaching-----	27
2.7 Teaching and learning mathematics and geometry concepts-----	27
2.8 Concept of geometry and spatial development-----	29

2.8.1 Van Hiele’s levels of spatial development in geometry -----	29
2.8.2 Standard seven geometry concepts -----	30
2.8.3 Teaching and learning of geometry concepts-----	31
2.8.4 Conceptual theory of Vergnard (1990) -----	32
2.9 Assessment and performance in geometry-----	33
2.9.1 Misconceptions in geometry -----	34
2.9.3 Students performance in KCPE mathematics geometry questions in 2009 and 2011-----	34
2.9.4 Summary of the literature review -----	35

## **CHAPTER THREE**

### **METHODOLOGY**

3.0 Introduction -----	37
3.1 Research design -----	37
3.1.1 Variables -----	38
3.2 Location of the study-----	39
3.3 Target population-----	39
3.4 Sampling Techniques and sample size-----	39
3.4.1 Schools’ sample-----	40
3.4.2 Pupils’ sample-----	40
3.4.3 Teachers’ sample-----	40
3.5 Research Instruments-----	42

3.5.1.Pupils’ geometry standard test-----	42
3.5.2 Teachers’ questionnaire-----	42
3.5.3 Pupils’ questionnaire-----	43
3.6 Pilot study -----	43
3.6.1 Validity -----	43
3.6.2 Reliability-----	44
3.7 Data Collection Techniques-----	45
3.7.1 Data analysis technique-----	46
3.9 Logistics and ethical considerations-----	46

### LIST OF TABLES

Table1.1. Teaching practice survey on mathematics teaching topics-----	5
Table 1.2 KCPE 2012 Mathematics performances per school-----	6
Table 2.2 Kenyan standard 6 and standard 7 geometry content-----	31
Table 2.3 Geometry 2009 & 2011 KCPE questions performance by pupils in Percentage-----	35
Table 3.1: Sampling grid for schools, teachers and pupils -----	41
Table 3.2 Sampling grid for boys, girls and teachers in each sampled school in Thogoto zone -----	41

## LIST OF FIGURES

Figure 1.1: Gagnes technological model of a system approach relating to practical teaching in geometry concepts-----	13
Figure 1.2: Conceptual frame works on relationship between practical teaching and learning characteristics on geometry and student performance-----	14
Figure 2.1: Glassers' model of systematic approach-----	22
Figure 3.1: Study design-----	38
References-----	47
Appendices -----	52
Appendix I: Teaching practice survey on mathematics teaching topics-----	52
Appendix II: Mathematics teaching topics given by TP schools – final TP 2012 -----	53
Appendix III: Thogoto zone public primary schools – 2014 -----	54
Appendix IV: Standard 7, Thogoto zone geometry quiz, 2014 -----	55
Appendix V: Practical teaching activities in geometry, standard 7 -----	58
Appendix VI: Standard 7 mathematics teacher's questionnaire -----	59
Appendix VII: Standard 7 pupils questionnaire-----	62

## LIST OF ABBREVIATIONS

<b>CEMASTEA</b>	Centre for mathematics, science and technology education in Africa
<b>GOK</b>	Government of Kenya
<b>INSET</b>	In service education and training
<b>IRBs</b>	International research ethics
<b>KCPE</b>	Kenya certificate of primary education
<b>KCSE</b>	Kenya certificate of secondary education
<b>KIE/ KICD</b>	Kenya institute of education / Kenya institute of curriculum development
<b>MoE</b>	Ministry of education
<b>MoE, TPC</b>	Ministry of education, teacher's proficiency course manual
<b>MS</b>	Mathematics and science teacher
<b>NCTI</b>	National center for technology innovation
<b>NTCM</b>	National council of teachers of mathematics
<b>PPTs</b>	Prospective primary teachers
<b>PTE</b>	Primary teacher's exam
<b>RME</b>	Realistic mathematics education

<b>SMASE</b>	Strengthening mathematics and science in education
<b>SMASSE</b>	Strengthening mathematics and science in secondary education
<b>SPSS</b>	Statistical package for social sciences
<b>STD</b>	Standard, primary school level of the learners
<b>TP</b>	Teaching practice
<b>TPS</b>	Teaching practice schools
<b>TSC</b>	Teachers service commission
<b>TTC</b>	Teacher training college
<b>UNESCO</b>	United Nations Educational Scientific and Cultural Organization

## ABSTRACT

Over the years poor performance by KCPE candidates has consistently been observed in geometry items. Geometry has an important place in primary school mathematics curricula. This study will aim at analyzing the effects of practical approach to teaching geometry in public primary schools in Thogoto zone, Kiambu County. The main objectives of the study will be to determine the extent to which primary mathematics teachers use the practical method in teaching geometry, establish effects of practical teaching in performance in geometry questions in primary schools and establish pupils' most common spatial reasoning errors made in primary schools in Thogoto Zone. This study will be carried out in public primary schools in Thogoto educational zone in Kiambu County. Target population will be 1035 standard seven pupils in 12 public primary schools and 24 mathematics teachers. The categories of schools will be public day and boarding. In standard seven 343 pupils will be randomly sampled representing 33.14 %. This will be made of 180 boys and 163 girls. The sample will be from four purposively sampled schools for the main research and one school for the pilot study. Eight mathematics teachers will be randomly sampled from the four purposively sampled schools. Experimental survey design and causal comparative design will be used. Questionnaire on geometry and geometry standard tests will be used to obtain data. Geometry achievement test will be administered to all standard seven pupils in two phases. Data on teaching /learning materials used will be gathered using classroom practices and teachers and pupils questionnaires. Quantitative data analysis will consist of measuring numerical values from each description such as mean and standard deviation. Frequency tables, graphs and pie charts will be used to represent data. Data will be analyzed using statistical and descriptive survey method together with statistical package for social sciences (SPSS).