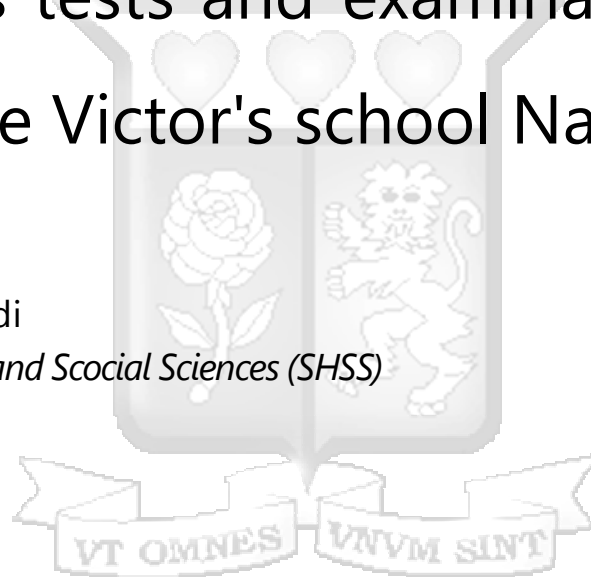




An Evaluation of the administration of continuous tests and examinations: a case study of the Victor's school Nairobi

Sarah Anzazi Omondi

School of Humanities and Social Sciences (SHSS)
Strathmore University



Follow this and additional works at <http://su-plus.strathmore.edu/handle/11071/5134>

Recommended Citation

Omondi, S. A. (2008). An Evaluation of the administration of continuous tests and examinations: a

case study of the Victor's school Nairobi. Retrieved from [http://su-](http://su-plus.strathmore.edu/handle/11071/5134)

[plus.strathmore.edu/handle/11071/5134](http://su-plus.strathmore.edu/handle/11071/5134)

**AN EVALUATION OF THE ADMINISTRATION
OF CONTINUOUS TESTS AND
EXAMINATIONS:
A CASE STUDY OF THE VICTOR'S SCHOOL
NAIROBI.**

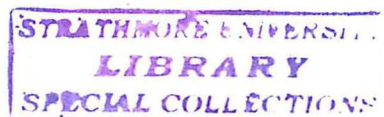
BY

SARAH ANZAZI OMONDI

**A RESEARCH PROJECT
Submitted in Partial Fulfillment of the Requirement of
Post Graduate Diploma in Educational Management**

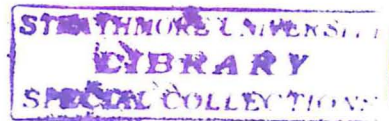
STRATHMORE UNIVERSITY.

May, 2008.



COPY RIGHT

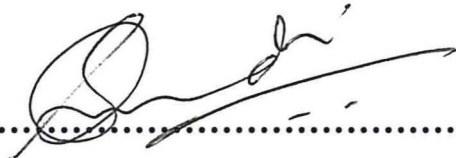
No part of this publication may be translated, reprinted or reproduced in any form in whole or in part by any means now known or hereafter invented without prior permission of the researcher or Strathmore University.



DECLARATION

This research project is my original work and has not been presented for any study program by anyone in any institution.

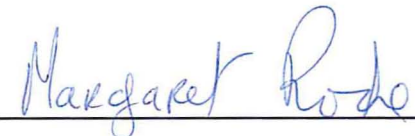
Name: SARAH ANZAZI OMONDI
Address: P. O. Box 55118-00200
NAIROBI, KENYA

Signature:  **Date:** 14/08/2008

This work has been submitted for examination in satisfaction of a Research Project for the requirement of the Post Graduate Degree in Educational Management with my approval as the University Supervisor:

Approved by:  **Date:** 29/09/08

Dr. Freddie Acosta, Director of Academics and Research.

Noted by:  **Date:** 31-3-09

Margaret Roche,
Dean, Institute of Humanities, Education and Development Studies.



DEDICATION

To my dear husband Godfrey, for his support, understanding and patience, and constant encouragement to keep my eye on the prize,

To my daughter Aki, for the inspiration,

To my sons Dano & Mike who helped me to be a better example to them,

To my Lord Jesus Christ, for the sufficient grace.



ACKNOWLEDGEMENTS

I sincerely would like to acknowledge the many people whose assistance directly or indirectly facilitated the completion of this research project.

Although it is impossible to recognize everyone by name, I wish to thank the following Lecturers:

Dr. Jackton Ogeno

Lecturer, Research Methodology. I understood the lectures so well which enabled me to carry out the research project with understanding

Margaret Roche

Dean, IHEDS for such inspiration of a strong and confident leader, and believing in the class in general

John Nyagoto

For showing me that a teacher is key in students' experiences

Patrick Kibui

Coordinator, Education Management Diploma Courses, for inspiring me to be a better teacher manager

Dr. Freddie Acosta

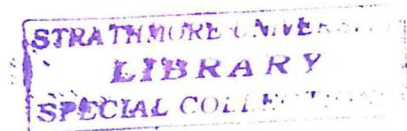
My main supervisor who gave me advice, and guidance, and challenged me to be my best. Thanks to you Dr Acosta for also teaching me that teachers can be smart entrepreneurs.

Special thanks to Aileen whose concern and cheer kept me going. You were there for me.

Special thanks to my classmates for the support and encouragement.

Thanks to the respondents of the questionnaire and the interviewees for accepting to be subjects in this study.

Thank you Sharon for helping with typing



Special gratitude to my husband Godfrey and our children, for the concern, understanding and encouragement even when I had to come home late from the library

Thanks to my Sister Marie and Brother Roni, who kept asking how I was getting on

Thanks to the Kileleshwa Bible Study Group for all the prayers

Not forgetting the Lord Jesus for the sufficient grace which enabled me all through.

ABSTRACT

This research project is a descriptive case study that takes an in-depth analysis of the administration of continuous tests and examinations at The Victor's School, a private primary school situated in South 'C' in Langata Division in Nairobi. The purpose of this study was to evaluate the manner in which continuous tests and examinations are administered at The Victor's School and point out the issues arising out of the current system in place in order to form a basis for formulation of a comprehensive regulations and policy guideline document for the administration of continuous tests and examinations at the school, and to inform teachers of the expected standard.

Administration of continuous tests and examinations is a very crucial issue in the Kenyan system of primary level education, the 8.4.4. Curriculum. Tests and measurement provide the teacher with data on the teaching-learning process, and especially on students' diagnosis of learning disabilities of past failures, of present weakness, the detection of mastery, of competence, of the acquisition and possession of the skills, knowledge and creativity.

In this study, a complete enumeration of the subjects was done as the teaching staff was small. Quantitative and qualitative data was collected using a questionnaire and structured interviews to selected staff members. The data obtained was analyzed using simple descriptive statistics, frequency tables and content analysis using Microsoft word.

The results obtained showed that teachers felt the assessments were not given the seriousness they deserved. Various issues were raised such as arguments for and against subject teachers setting exams for their students versus out-sourcing for exams, regularization of tests to fortnightly, and the need for teachers to be more strict with pupils' adherence of exams rules.



TABLE OF CONTENTS

Title	i
Copy Right	ii
Declaration	iii
Dedication	iv
Acknowledgement	v
Abstract	vi
Table of Contents	vii
List of Tables	x

Chapter 1: INTRODUCTION

1.0	Introduction	1
1.1	Background to the Study	2
1.2	The Current Practice	2
1.3	Statements Of The Problem	4
1.4	Purpose and Objectives of the Study	4
1.4.1	The Broad Objectives	4
1.4.2	The Specific Objectives	4
1.5	Hypothesis	5
1.6	Significance of the Study	5
1.7	Assumptions of the Study	6
1.8	Limitations of the Study	6
1.9	Scope of the	6
1.10	Definition of Terms.....	6

Chapter 2: REVIEW OF RELATED LITERATURE

2.1	Introduction	8
2.2	Theoretical Framework: Piaget's Theory of Cognitive Development	8
2.2.2	The Cognitive Theory	8
2.2.3	Stages of Cognitive Development	9
2.2.4	Theoretical Framework	11
2.2.5	Implications of Piaget's Cognitive Theory for Teachers in Setting Tests and Exams	13
2.3	Continuous Assessment Tests and Measurement	14
2.3.1	Introduction	14
2.3.2	Methods of Student Assessment	15
2.3.3	Implication of These Tests for Teachers	17



2.3.4	Teacher-Made Methods/Techniques of Assessing Students	17
2.3.5	Characteristics of Good Tests	18
2.3.6	Developing a Written Test	19
2.4.7	Testing and Learning	20
2.4	Review of Previous Research and Opinion on Assessment	21
2.4.1	Introduction	21
2.4.2	Review of Related Literature	21
2.4.3	Summary of the Key Points from Research about Administration of Formative Assessment	21

Chapter 3: RESEARCH DESIGN/METHODOLOGY

3.1	Introduction.....	25
3.2	Design of the Study.....	25
3.3	Sampling	25
3.4	Instrumentation and Data Collection	26
3.4.1	Questionnaire	26
3.4.2	Interviews	27
3.5	Ethical Issues	27
3.6	Data Analysis	28
3.7	Limitations	29

Chapter 4: RESEARCH RESULTS/FINDINGS

4.1	Introduction.....	30
4.2	Teachers' Personal Information	30
4.2.1	Total Number and Gender of Respondents.....	30
4.2.2	Teachers Work Experience	31
4.3	Continuous Assessment Methods	32
4.3.1	Definition of Assessment.....	32
4.3.2	Assessment Methods Teachers Use	32
4.3.3	Reasons the Teachers Gave for Assessing Pupils	32
4.3.4	Frequency of Assessing Pupils.....	34
4.4	Teachers' Competence in Setting Exams	34
4.4.1	Teachers' Preference to Set or Mark Scripts	34
4.4.3	Teachers' Opinion about Setting Tests/Exams	35
4.4.4	Reasons Teachers Feel Competent to Set Tests and Exams	35
4.4.5	Objectives for Tests and Exams	36
4.5	Characteristics of Good Tests/Exams	37
4.5.1	What Teachers Consider as Good Characteristics of a Good Test/Exam.....	37
4.6	Outsourced Verses Internally Set Exams	38
4.6.1	Who Should Set Tests/Exams.....	38
4.6.3	Out-Sourced Verses Internally Set.....	39

SPECIAL COLLECTIONS
 LIBRARY
 UNIVERSITY OF MALAYA

4.7.	Irregularities in Administration of Exams	40
4.7.1	One Best Suited to Invigilate Exams	40
4.7.3	Rules Teachers Would Enforce During Tests/Exams	40
4.7.4	Action Against a Pupil Caught Cheating	41
4.8	Evaluation of the Current System	41
4.8.1	Teachers' Views Whether Administration of Continuous Assessment Test and Exams are Given the Seriousness they Deserve	41
4.8.2	Responses on Positive and Negative Elements	42
4.9	Teachers' Suggested Recommendations	43
4.10	Knowledge of Piaget's Cognitive Theory	43

**Chapter 5:
SUMMARY AND CONCLUSION, DISCUSSIONS
AND RECOMMENDATIONS**

5.1	Introduction	45
5.2	Summary	45
5.2.1	Objectives	45
5.2.2	Methodology	45
5.2.3	Findings.....	45
5.3	Conclusion	48
5.4	Discussion	48
5.4.1	Composition of Teachers and Their Work Experience	48
5.4.2	Continuous Assessment Methods the Teachers Use	49
5.4.3	On Characteristics of a Good Test/Exam and Out-Sourced Exams	50
5.4.4	On Teachers' Competence in Setting Tests/Exams	50
5.4.5	An Overview of the Current System	52
5.4.6	On Knowledge of Cognitive Theories	53
5.5	Recommendation	53
5.5.1	Suggestions for Further Research	55

APENDICES:

Appendix 1	Letter of Introduction	56
Appendix 2	Questionnaire	57
Appendix 3	Interview Schedule	62

BIBLIOGRAPHY	63
---------------------	-------	----



LIST OF TABLES

TABLE	PAGE
4.1 Respondents in Their Gender	30
4.2 Teachers Work Experience	31
4.3 Teacher's Definitions of 'Assessment'	32
4.4 Assessment Methods Used By Teachers	32
4.5 Teachers' Reasons for Assessing Pupils	33
4.6 Frequency of Pupils to Sit Tests and Examinations	34
4.7 Teachers' Preference in Setting Exams and Marking Exams Scripts	34
4.8 Teachers' Opinion if They Felt Competent In Setting Tests and Exams	35
4.9a Setting Objectives on Which to Base Test Questions	36
4.9b Stated Objectives by the Respondents	36
4.10 Teachers Thinking as to Who Should Set Tests/Exams in the School	38
4.11 Out-Sourcing Exams Verses Setting Internally	39
4.12 Who Teachers Consider as Best Suited to Invigilate Tests and Exams	40
4.13 Teachers' Seriousness on Administration of Assessments	41
4.14 Responses on Positive and Negative Elements	42
4.15 Teachers' Responses to Knowledge of Piaget's Theory	43
4.16 Teachers' Correct Responses to Knowledge of Piaget's Theory	44



CHAPTER ONE.

1.0 INTRODUCTION.

In a school set up, we normally think of the word “test” with “examination” and think of a test in a summative context that is coming at the end of instruction. A test should be thought of as an attempt by a student to demonstrate mastery of learning objectives in all areas of human development that is psychosocial domain, biosocial domain, and especially the cognitive domain.

Worldwide, various tests and examinations are administered by different schools, colleges and universities and organizations, and students and candidates take them for all manner of purposes. Examples of these are the British Key Stage and the famous International General Certificate of Secondary Education (IGCSE), Test of English as a Foreign Language (TOEFL), and Scholastic Assessment Tests (SAT), commonly administered in United States of America.

In Kenya, national examinations at the completion of primary school level Kenya Certificate of Primary Education (K.C.P.E.), and its equivalent at secondary school completion, Kenya Certificate of Secondary education (K.C.S.E.), have been used as a yardstick to measure the achievement of curriculum objectives in schools. The role of Kenya National Examinations Council is the administration of the national examinations that is, to facilitate the setting, moderating, marking and grading of all national examinations for various levels of education in this country. The council also awards certificates to successful candidates in the public examinations.

In Kenyan schools, administration of continuous tests and examinations provide the only information that may be used for determining student progress in the school. Tests are predominantly used in schools for evaluation because they are easy to administer, provide the norm against which achievement can be judged, they are expected to be objective and are economical to use.

Although tests and examinations have their own limitations, they do provide data for instructional evaluation. Instructional evaluation reveals a lot about what is going on in various classrooms and what actually happens in different schools. Each school in the private sector has its own ways and styles of administering internal continuous tests and examinations, although eventually all students sit the same national examinations at the end of primary and secondary school education.



1.1 BACKGROUND TO THE STUDY

Continuous assessment tests and examinations are designed to replace the much subjective judgment with objectivity to the greatest degree possible. Such measures are useful for the task of recording, measuring and evaluating the behavior and mental abilities of the pupils, as well as gauge the teacher's performance. The marks the pupils score from the tests and examinations set by the teachers have a bearing on the school. Much of public perception of a primary school in Kenya today, has a lot to do with a good academic performance. Most of the teaching activities that take place in the classroom depend on the teacher's guidance. The teacher assesses and monitors the pupils' learning that is taking place. With demands from the Headteacher, parents/guardian and the Owner-Managers/Directors of the schools, the teacher must obtain information that is accurate, one that will reflect what is actually happening to the class or each pupil, but not what he/she feels is happening.

Thus the administration of continuous tests and exams at the school is an important aspect of the whole teaching-learning process, and there is need to streamline the activities thereof. This is possible when there is an operational guideline manual, to ensure proper assessment of the pupils through continuous testing and examinations. This study will examine the current practice at The Victor's Primary School, located in South 'C', Langata Division in Nairobi, to point out the issues and problems in administration of continuous tests and examinations at the school, in order to come up with a guideline policy document for the same.

1.2 THE CURRENT PRACTICE

The position is that there are no clear-cut guidelines that the teachers follow when setting tests and exams for the pupils. The major method used is the pencil and paper method, and oral questioning during class time. Mental sums are used but mainly to assess the internalization of multiplication tables by the pupils, and not all teachers give mental sums. The pupils sit exams and tests set by teachers and also the school would on occasions where teachers do not set exams, outsource ready set exams.

In cases where exams are out sourced, at least three sample sets of exams for the classes to be assessed should be obtained from the supplier and the heads of subject panels go through them checking on each item to select the appropriate valid exam for the moment in time, according to the syllabus coverage by the teachers. However there are times when just two exams even one have been available leaving the teachers with little choice for selection.

For the teachers to know the point of syllabus coverage, the panel heads should use the schemes of work to countercheck what topics have been taught and covered per each class. The chosen exam is then ordered for the pupils. Again some of the teachers for whatever reasons do not countercheck with the syllabus and schemes of work covered. There is also no set mechanism to verify what the panel head has moderated. Sometimes the choice of the exam to be done remains subjective. Most outsourced exams come with marking schemes. Where none are attached, it is not very clear who sets one.

When exams are internally set, the headteacher allocates the teachers to do the job according to the subject panel members. For instance, the English panel members will be allocated to set the English exam across the classes. Teachers are not allowed to set exams for the pupils and classes they teach, simply to avoid leakage and setting easy exams. The process of moderation of the exams is not quite clear. The teachers setting exams are supposed to attach the marking scheme for every exam they set, but most of the time they delay in doing so even until the exam is done. As for the topical tests, it has been observed that very few teachers do them. Most teachers concentrate on mid term and end term exams at the expense of topical tests.

The manner in which the exams are conducted needs improvement. It has been noted that some pupils talk and whisper during exams in the excuse of borrowing stationery like erasers etc. There is also a lot of walking out of the exam room to the washrooms by the pupils. Sometimes the teachers read, mark books or do other things during the exam instead of strictly invigilating the exam. Although there are hardly cases of pupils caught cheating during exams, the conduct of the teachers can easily encourage pupils to cheat and copy during exams.

There is pool marking, as most items in our exam set up tend to be multiple choices or structured multiple-choice questions. Each teacher is usually allocated classes and subjects to mark. Only the specific subject panel members mark compositions, example Kiswahili teachers mark the Kiswahili compositions. However, teachers tend to be subjective in marking of compositions. The same composition can be awarded different marks when marked independently by two different teachers. Issues of the legibility and neatness of handwriting tend to be subjectively awarded. The school is yet to establish criteria of classifying handwriting from bad to worst, good to best and establish an effective common objective method for measuring pupils' creative writing, that is, composition.



1.3 STATEMENT OF THE PROBLEM

Assessment provides a means of determining the extent to which knowledge and skills taught have been achieved. And because of the instructional function of assessment especially in facilitating the pupils' learning and growth needs, and determining the success of instructional teaching strategies, its administration thereof requires the seriousness it deserves in order that the objectives of assessing pupils are achieved. The problem at The Victor's School is that the administration of continuous assessment tests and examinations is not streamlined in clear guidelines so that the teachers are informed of what is expected of them when setting and administering assessment tests and exams.

There is need to formulate a working policy document on setting of continuous assessment tests and exams and administration of the same, so that proper diagnosis of the pupils' learning disabilities of past failures and present weaknesses are detected, and empower the teachers' mastery and competence in constructing adequate and appropriate tools of assessment for the evaluation of set learning objectives. The Policy Guidelines Document will reinforce continuous assessment as central to the teachers' work.

1.4 THE PURPOSE AND OBJECTIVE OF THE STUDY.

1.4.1 The Broad Objectives

Based on the problem stated, the purpose of this proposed study will be to evaluate the manner in which continuous tests and examinations are administered at The Victor's School and point out the issues arising out of the current system in place in order to form a basis for formulation of a comprehensive regulations and policy guideline document for the administration of continuous tests and examinations at the school, and to inform teachers of the expected standard.

1.4.2 Specific Objectives.

The study will focus on the following objectives:-

- i) To establish the continuous assessment methods the teachers use
- ii) To explore the teachers' competence in setting tests/exams
- iii) To find out what teachers consider as good characteristics of a good tests/exams
- iv) To establish reasons why teachers would outsource exams rather than set them themselves
- v) To obtain an overview of the current system.
- vi) To find out the knowledge of the Cognitive Theories the teachers have.



1.5 HYPOTHESIS

Hypothesis is an anticipated explanation and opinion regarding the result of the research. Orodho (2005, pg 13) claims it “is an educated guess about possible differences, relationships or causes of a research problem.” Further Kothari (1990, pg. 223) states that hypothesis is “a mere assumption or some supposition to be proved or disapproved.” The hypothesis for this study states that:-

“There is no significant relationship between a teacher’s years of work experience and their administration of continuous assessment of students.”

1.6 SIGNIFICANCE OF THE STUDY

This section gives a justification of the study and it is hoped that the study will be significant and useful to:-

- a) To the researcher and others in formulating a working policy manual document on continuous tests and examinations in schools.
- b) To prospective school owner managers and entrepreneurs to assist them in ensuring the administration of continuous tests and examinations in their schools is authentic and the results obtained contribute positively to the work of the school.
- c) Quality and Assurance Standards department at the City Education Department who will get relevant information in their endeavor to measure quality of continuous assessment tests and examinations administered by teachers in different Private and Public City schools when conducting their various school audits.
- d) The results may also be relevant to teacher training institutes providing practical information on the conduct of continuous assessments tests and examinations in schools.
- e) Inform that continuous assessment tests are a constituent part of the teaching and learning process and its goals should be the improvement of instruction and learning.
- f) Trigger further questions about the KCPE exam which encourages rote learning for the sake of selection to secondary schools
- g) Scholars, researchers and organizations that might have an interest in developing the research area further.



1.7 ASSUMPTIONS OF THE STUDY

- It is assumed that the responses of the subjects are going to be candid and truthful.
- That the responses will correspond to what actually happens and not what the respondents think should happen.
- All the respondents are trained teachers

1.8 LIMITATIONS OF THE STUDY

- The study will be carried out at The Victor's Academy situated in Nairobi South 'C' in Langata Division, Nairobi.
- The study will limit itself to views of the teachers only and not of other stakeholders, so it may have a one-sided view.
- Some respondents are likely to misconceive the purpose of the study. However, the researcher will assure them of no victimization and confidentiality.
- The study will limit itself to the current academic year as it is hoped that thereafter, the right procedures of setting and administration of the continuous tests and exams will have been streamlined following formulation of the Policy Guidelines Document

1.9 SCOPE OF THE STUDY.

- The study will limit itself to assessment of Class One to Class Eight pupils already under instruction in a school set up, and not any expected to join or any who could have left the school.
- The study will limit itself on teachers' attaining objectives in the cognitive domain, and therefore will focus on tests and assessment methods often used to test the cognitive domain.

1.10 DEFINITION OF TERMS

These definitions are used in the context of this study.

Assessment: The diagnosis of a pupil's learning problems

School-Based Assessment: Assessment conducted by teachers in school, which encompasses academic attributes including attitudinal and practical skills, and is a constituent part of the teaching-learning process.

Cognitive: A general term that includes such mental abilities as perception, thinking, reasoning and problem solving

Test: The presentation of a standard set of questions to be answered, or problems designed to measure performance or achievement of individual pupils or class.

Examination: A major test

Performance: Results of tests or exams

Measurement: The means of determining the degree of achievement of a particular learning objective or competency.

Syllabus: Is an outline of work planned for a particular class to be done in the course of the year.

Stage: One of the several time periods in development that is quantitatively distinct from the periods that come before and after.

Evaluation: The process of giving value judgment based on the information gathered through measurement and testing.

CHAPTER TWO.

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of the review is to related relevant pieces of literature to the focus of the study Orodho (2005). The main areas will include:-

- Theoretical Background
 - Piaget's Theory of Cognitive Development
 - Implication of the Theory in Setting Tests and Exams
 - Theoretical Framework
- Continuous Assessment Tests and Measurement
 - Methods of Student Assessment
 - Teacher-Made Methods/Techniques of Assessing Students
 - Implication of These Tests for Teachers
- Review of Previous Research and Opinion.

2.2 THEORETICAL FRAMEWORK:

PIAGET'S THEORY OF COGNITIVE DEVELOPMENT

2.2.1 Introduction

Cognitive development is the aspect of development that deals with thinking, problem solving, intelligence and language. It refers to the basic cognitive mechanisms such as perception, memory and the process by which children learn to organize, store and more importantly retrieve information. The study will expound more on the concrete operational stage, and the formal operative stage, third and fourth stages respectively, of the theory simply because these stages in Piaget's Theory of Cognitive Development deal with the school-age child ages applicable in our school set up.

2.2.2 The Cognitive Theory

According to Berger (1998), Jean Piaget (1896 – 1980), one of the Cognitive Theorists, conceptualized a stage theory of cognitive development especially on children's development whose focus is on thinking, remembering and analyzing. Berger continues to say that Piaget contends that cognitive development in all children will follow predictable and qualitatively distinct levels or stages, which will occur during specific periods of a child's life. These stages are said to emerge in an invariant and universal sequence. All

children pass through each in the same order. No stage or sub-stage can be skipped, and must be negotiated in turn. Each stage has structural features that permit certain types of knowing and understanding. Orodho (2005) adds that each more advanced stage is built on the preceding ones, but has new characteristic and a new organization structure. The quality of knowledge is expected to improve as the child moves from one stage to another. The elaboration of new mental abilities set the limit and determines the character of what can be learned during that period Berger (1998). It is important to remember that children develop at different rates. And proceed through these stages at their own rate and at the age at which each stage is negotiated vary from child to child Parkay & Stanford (2004) and Kaplan (1991). Piaget also noted that intellectual impaired children may develop at a slower rate or may fail to reach the higher stages of cognitive development Berger (1998). As children develop cognitively, their mental capabilities expand so that they can use language and other symbol systems to solve problems.

2.2.3 Stages of Cognitive Development:

- a) Sensory-Motor
- b) Pre-Operational
- c) Concrete Operational
- d) Formal Operational beginning in adolescence eleven to fourteen/fifteen years and continuing lifelong.

a). Sensory-Motor Stage

From infancy to two years of age. The infant uses sense and motor skill abilities to understand his environment. Their understanding of the objects in their world is limited to their sensory experience of them and to the immediate action they can perform on them.

b). Pre-Operational Stage

This is during the pre-school years of two to about seven years old. The child begins to use symbolic thinking which includes language to know his environment. His thinking is egocentric and focuses on his own perspective. The pre-operational child is mainly concerned with the immediate and the real, not with things that are theoretical, geographically remote or in the future. The child's ability to think logically during this stage is fragile and usually limited to tasks on which they have received training. As the child grows, he slowly starts to decenter his egocentrism. Children have great difficulty shifting from their own perspective to someone else's, and only by around the age of nine or ten are children successful at accepting other peoples' point of view as different from their own.

c). Concrete Operational Stage

This is middle school-age childhood of seven to eleven-twelve years old. These are children who are active learners, eager to develop academic skills and accumulate knowledge. Piaget argues that children in this stage can reason logically about the things and events they perceive. They understand the relationship between the whole and its parts. They begin to reason in a logical and consistent way that seems rational to adults, but always about the real concrete world around them, and not in abstract. Berger (1998), firmly states that the child develops retrieval strategies of memory and information processing and becomes more efficient through atomization, where rehearsed mental activities become routine they therefore, become more systematic, objective, scientific and educable thinkers. Their thoughts become decentered and can think and follow more instruction simultaneously. Class inclusion develops and now can know that a father can also be someone's brother and a grandfather to another hence the child becomes less egocentric.

In Piaget's Theory, *identity* is the logical principle that superficial changes in an object's appearance do not alter its underlying substance or quantity, and remains the same no matter what changes occur in its shape or appearance. Piaget points out that mastery of this principle is one reason the concrete operative child is able to perform logical operations. For instance, an awareness of identity enables a child to realize that pouring the liquid contents of a particular container into a differently sized or shaped container does not increased or decreased the amount of the liquid because of the different shape of the new container. The child is able to see that the quantity of milk is the same poured into the other container. A firm grasp of the principle of identity also enables a child in this stage to know that the number 15 is always 15 whether it is arrived at by adding 10 and 5 or 12 and 3.

Likewise, the same is true of the logical principles of *reversibility*, which Piaget says relate to the fact that transformation can be restored to its original state by reversing the transformation process. For instance a child in concrete operational stage is able to understand that the reversing of addition (if $10 + 5 = 15$, then $15 - 5 = 10$) or ice is frozen water and that the ice can be turned into water again. The child is also able to understand *reciprocity* as in multiplication (that 4×3 and 3×4 both equal 12). The child is thus able to work out sums better as memorization of multiplication tables takes place

The cognitive maturation of middle childhood, coupled with the school experiences that they children undergo increase their vocabulary. The gradual understanding of logical relations also help them in complex grammar such as the correct use of comparatives like

'longer,' 'deeper,' 'wider,' and tend to define words by another meaning like dress – attire, under – below etc. One of the most important language developments during this third stage of cognitive development is a clear demonstration of creative writing in compositions, poems and stories Berger (1998).

In all these ways, the underlying logical principle of identity contributes to more accurate and objective understanding during teaching.

d). Formal Operational Stage

Children in this stage begin to think in abstract rather than concrete terms and to solve problems logically by considering all possible combinations of events that might affect a solution. Adolescents begin to think abstractly and are more organized and flexible in their work and in solving problems. This allows for manipulation of information to be extended to more abstract and structured mental abilities that enable the solving of the problems in more logical rather than haphazard manner. According to Piaget, the individual's cognitive structures reach maturity during adolescence Piaget (1981). During adolescence there is an expansion in the capacity and style of thought that broadens the young person's awareness, imagination, judgment and insight. Once formal operations are developed, there occurs gradually a quantitative though not qualitative change in the intellectual functioning, and the child gets to realize that there could be many answers to one question.

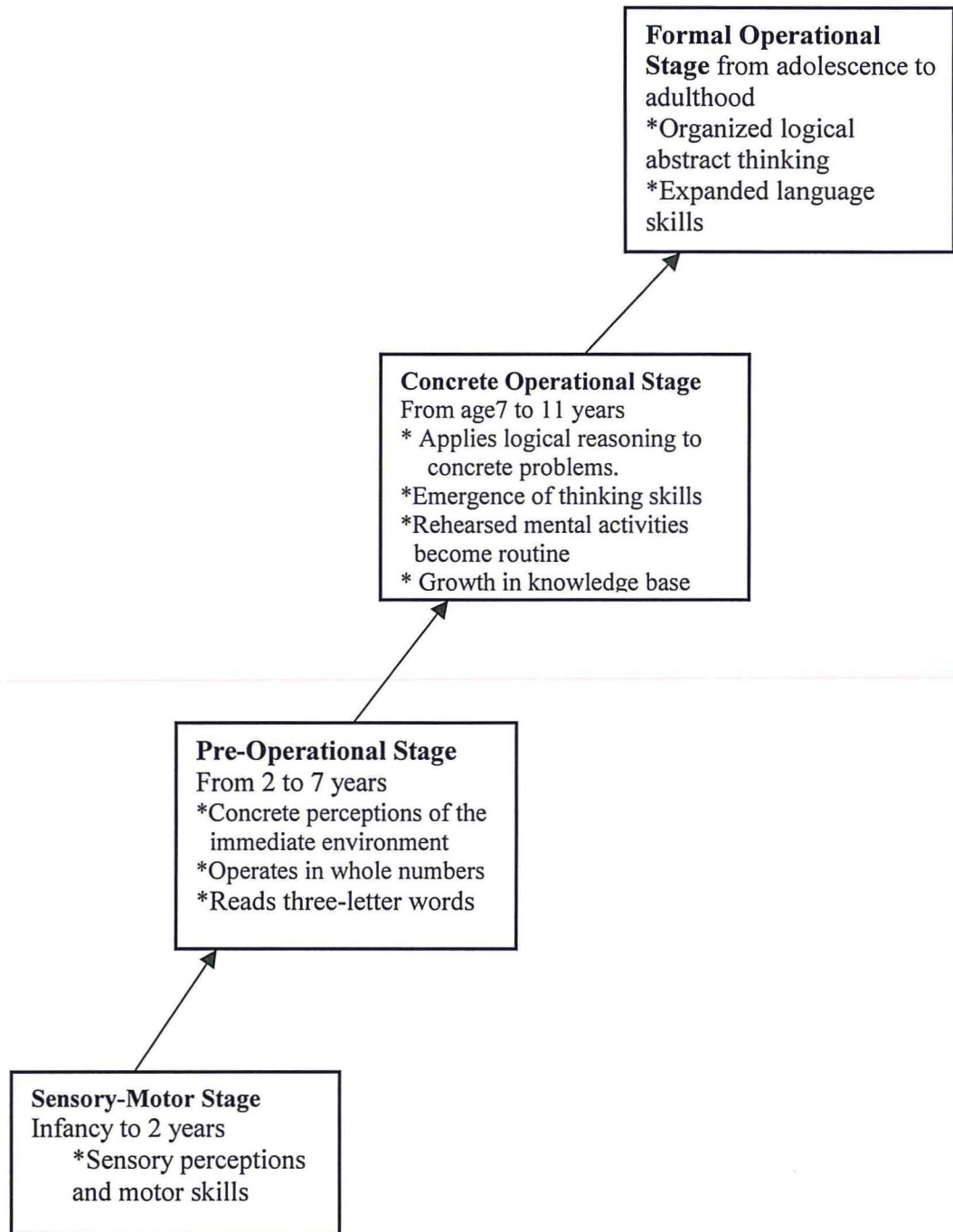
Because of the logical and abstract thinking, children at Class 7 to 8 (formal operative stage) for example can understand BODMAS mathematical operations than Class 2 children, and will be able to follow through and solve a mathematical problem. Likewise because of this abstract thinking, their creative writing in terms of writing composition are at a higher level, and so are able to write on topics like "The Strange Dream," because of expanded language skills.

2.2.4 Theoretical Framework

"Perhaps Piaget's most important contribution was to show that all children of different ages understand in ways that are different from the adults" Lahey (1995, pg. 328). The theory depicts the individual as actively seeking to understand experiences, forming concepts and cognitive strategies and specifically on how children develop knowledge. The cognitive or mental skills are those skills that predominantly use the mental aspect. The learner is involved in mental activity to either reason or recall previously learnt knowledge.

Figure 1.

Theoretical Framework of Piaget's Cognitive Development Theory



Each stage has features that permit knowing and understanding.

Each more advanced stage is built on the preceding one, and as children grow they get to do more difficult tests and exams.

Cognitive theorists believe that a person's thought processes – the understanding and analysis of a particular situation – have an important effect on behavior and development. It is the Apostle Paul who said in the Holy Bible that, "When I was a child, I talked like a child, I thought like a child, I reasoned like a child. When I became a man, I put childish ways behind me." 12 Corinthians 13: 11. Piaget's cognitive theory bears this well.

The teacher should be able to determine at which mental capability level their students are at so that their assessment of them at any given time of syllabus coverage is fair for the students. The skills that were developed in lower primary are further refined in upper primary as the learners are involved in learning activities that require them to describe, write, analyze, compare, measure, draw etc. It is the responsibility of the teacher to gauge the age and abilities of the learner so as to give the right activities and ask the right questions in tests and exams that they are able to tackle MOEST (2002). By becoming familiar with the models of cognitive development of their students, teachers at all levels can better teach and serve their students Parkay & Stanford (2004).

2.2.5 Implications of Piaget's Cognitive Theory for Teachers in Setting Tests And Exams

The implication of this development process stresses that it may be futile to engage a child in a learning task which calls for cognitive skills which he does not already possess Kiminyo, Munavi & Wamani (2007). This way it is expected that the continuous tests and examinations that teachers set will be commensurate to the developmental stage of a child. When a teacher recognizes that for instance a child in the concrete operational stage is able to memorize multiplication tables, then only tests on *reversibility*, *reciprocity* and division can be given. And likewise when a teacher understands that a child is in the formal operative stage and can think logically and in an abstract manner, then higher order questioning is appropriate. As Shepard (1994) points out, teachers who have adequate knowledge of the way children develop concepts and skills can use typical classroom tasks for assessing their progress.

With this theory teachers have a greater appreciation of the capacities and limitations of the types of active mental processes that are possible at various ages, which also have a bearing on the kind and types of tests and exams that they would set for different children at different stages of their lives, and of the ways in which these capacities and limitations can affect behavior.



Obviously, a child who can consistently and thoughtfully apply logical principles is better equipped to carefully analyze problems, derive correct solution and ask follow-up questions that yield further understanding than is a more intuitive, haphazard thinker. The ability to apply logical principles also makes older children more objective thinkers, enabling them to distance themselves from their subjective impressions and personal experiences to derive a more reasoned judgment.

It is therefore, important that teachers realize that there are many forms of human behavior which depend on age, just like there are many tasks which an adult can perform proficiently but which are beyond the competence of a child. Piaget's theory of cognitive development contributes useful tips that give teachers information on guidance in teaching and assessment of students Woolfolk (1998). By becoming familiar with the models of cognitive development of their students, teachers at all levels can better teach and serve their students Parkay & Stanford (2004).

2.3 CONTINUOUS ASSESSMENT TESTS AND MEASUREMENT

2.3.1 Introduction

It is normally good practice for teachers to assess the instruction of curriculum that they carry out. Teachers assess whether their students have understood the lessons through tests, exams, questions during lessons and observations. In many schools in Kenya The Victor's School included, it is normal practice for schools to send home report cards bearing grades and the teachers comments on the teacher's comments on the child's current achievement and need for improvement. Eble (1997, pg. 101) states that, "the obvious method of discovering whether the class has studied its work, and of prodding them on to study in the future, is to ask them questions." And according to Tuckman (1975), tests and measurement provide the teacher with data for students' feedback, the diagnosis of learning disabilities of past failures, of present weakness, the detection of mastery, of competence, of the acquisition and possession of the skills, knowledge and creativity. Tests and measurements also help in the discovery of the students' values and attitudes, interests etc.

Measurement of instruction involves assessment that is, securing two or more measurements of a student in order to get a better understanding of the individual. According to Berger (1998), educators use wide range of tests and other measures to track children's progress and to assess how learning in one classroom compares with that of other classes in the same school, in other local schools in other states, and in other nations. Care must be taken to ensure assessments and evaluation contributes to the growth of the student and that



in no way destroys him. It should encourage, giving him an idea of the progress he has made.

2.3.2 Methods of Student Assessment

Measurements yield scores, rankings, or ratings that teachers can use to determine the degree to which students have attained specific standards. Parkay & Stanford (2000) are of the view that teachers use both quantitative and qualitative approaches to student cognitive assessment. They go on to say that quantitative approaches make use of measurement and evaluation techniques such as published and teacher-made pencil and paper tests comprised of multiple choice, true-false, matching, or essay items. Qualitative approaches may include formal and informal observations of students' work habits. Tests and exams have been designed to overcome the subjective judgment of observation as a means of scoring because of their objectivity in measuring. Kiminyo, Munavi & Wamani (2007) observe that the primary school teachers will find the quantitative approaches of assessment of students very useful.

a) Formative Assessment

When teachers measure students' attainment of knowledge and skills for the purpose of making decisions about their teaching, they are engaging in formative assessment Parkay & Stanford (2000). The process is used by teachers to recognize and respond to student learning in order to enhance that learning. Formative assessment in education takes place during instruction Crosser (2005), and is therefore class assessment, and so it helps teachers to diagnose student's difficulties. And because it is conducted during the normal course of teaching and learning, it is less threatening to students as compared to end term and end of year exams. Crooks adds that it appears to be one of the most potent forces influencing education and accordingly, it deserves very careful planning and considerable investment of time from educators. Remedial teaching taken during the course of instruction may be as a result of formative assessment.

b) Achievement Tests

These are designed to measure actual learning. An achievement test is used to measure an individual's present and recent learning level of knowledge, skills or performance. Such tests contain items, questions and tasks that attempt to determine what an individual knows or can do. Usually they measure the skill and knowledge that the pupil has acquired in a subject matter to elicit the best performance from them. Most schools organize internal achievement tests/examinations for all students at the end of the term or academic year.

According to Berger (1998), achievement tests are carefully constructed by experts to focus on a particular subject and to measure children's learning with questions of varying difficulty so that the scores differentiate high, average, and low achieving students. Examples of thee in our situation are like the JESMA Exams, Top Achievers, and some of the so-called Zonal and District Exams. The child's score is either compared with that of the typical child with the same amount of schooling or the same background, or it is measured against some objective standard. Ideally, achievement tests reveal not only what children have learned but also their weakness in specific skills or subject areas. Thus, a math achievement test might show that a child has good computation skills but poor understanding of graphs.

Although achievements test are sometimes used to determine whether students will be promoted the next class, they are more commonly used to group students according to achievements level within each class Asiachi & Okech (1988). Such tests are also used by administrators to evaluate the performance of individual teachers, or schools, or the school system. Students who are held back in a class and made to repeat because of poor performance are more likely to drop out than achieve, and grouping children by test scores reduces the achievement of the lowest-scoring students. There is thus the danger that teachers may narrow their instructional goals to passing tests and exams. The KCPE Exam can be classified as an achievement test.

c) Summative Assessment,

According to Crosser (2005) and Parkay & Stanford (2000), summative assessment, occurs when teachers use measurements to determine grades at the end of term or course unit, and to decide whether students are ready for promotion to the next class. Its major purpose is to find out whether the students have mastered the preceding instruction Asiachi & Okech (1988).

Summative assessment is intended to summarize student attainment at a particular time, whereas formative assessment is intended to promote further improvement of student attainment; assessment *OF* learning versus assessment *FOR* learning Messick, (1989). Formative and summative assessments are usually tied to the school syllabus. The K.C.P.E. and the K.C.S.E are summative forms of assessment and evaluation, as K.C.P.E. is done after the completion of the eight years in primary school education, and K.C.S.E. after the four years of secondary school education. In these two exams students are under serious obligation to pass their exams.

d) Aptitude Tests.

These are designed to measure potential, such as how well and quickly a pupil could learn a new subject if given the chance Berger (1998). According to Eble (1997), aptitude tests tend to have broader coverage than achievement tests and it tests older learning as well. Pupil aptitude is important to teachers as they plan for learning activities in their classrooms. Much information regarding aptitude is obtained by teachers as they observe the work of pupils in class and as they check on past performances in certain subjects. The primary purpose of aptitude tests is to predict school success and, at times to diagnose learning problems. For example, aptitude test can help teachers identify gifted children, as well as children with specific learning disabilities. These tests will assist teachers in caring for the fast learner as well as slow learners. Aptitude tests tend to have higher heritability indices than achievement tests.

2.3.3 Implication of These Tests for Teachers

The implication of these tests for teachers is that when achievement or aptitude tests focus only on linguistic or mathematical-scientific skills, the test scores of some children may not fully reflect the actual potential or learning that they possess. Emphasis should also be placed on other kinds of learning, artistic, social, athletic etc, so that these are not pushed out of a normal school day for the sake of achieving academically, a common scenario in most of our schools. Children should be allowed to develop all their intelligences and demonstrate achievement in many ways, not necessarily in cognitive ways.

Continuous assessment tests and examinations can be very useful if their objectives are achieved and useless if their objectives are abused. A good objective of tests and exams should be to assess the pupil's progress. Tests and exams should therefore be accurate and provide a scope for full ability range of the class pupils and make marking of the same full proof.

2.3.4 Teacher-Made Methods/Techniques of Assessing Students

These can be oral or written and timed. Kiminyo, Munavi & Wamani (2007), have elaborately discussed teacher constructed tests.

a) Objective Tests:

In an objective test only one correct answer is provided for each question. The most commonly used objective tests as stated by Asiachi & Okech (1988) are:

1. The true-false question
2. Completion of blanks or structured questions
3. Matching and grouping.

b) The Essay Test:

In marking essay type questions which are mainly compositions and creative writing at primary school level, the teacher is required to read through the answer and form a general impression of how far the essay answer fits an ideal answer in his/her mind and opinion, and thereafter award marks out of a maximum assigned for that question. Asiachi & Okech (1988) assume that the teacher has a general body of knowledge, which put together, will form the answer to the question, and that the teacher has a good command of this knowledge.

The advantages of essay tests are that it helps in measuring student's ability to organize, interpret, evaluate and apply knowledge. It also helps the teacher to assess the student's ability to summarize, outline, and see relationships and trends. The disadvantages are that they have limited validity because no correct answers can be provided. Secondly handwriting and the way a student organizes his essay may affect the score. Thirdly scoring on essay largely depends on the physical and mental condition of the scorer. Forth, an element of bias, from the scores knowledge of the student previous work may make a big difference.

c) Oral Test:

Teachers in a school may sometimes use oral test in the classroom to assess students learning. Teachers use the questioning technique. This is mainly used in mental sums, spellings and sounding of words as in phonetics and pronunciations and revision work. Planning in advance is necessary for the teacher to think through the questions if objectives have to be attained.

d) Observation:

A skilled teacher can tell a lot about his or her student's success by just observing performance and interaction in the classroom. A student with problems during instruction will be spotted out from observation. Observations are however highly subjective according to Klausmeier & Ripple (1971), the teachers should include the judgment of more than one person whenever possible.

2.3.5 Characteristics of Good Tests.

a) Objectivity

An objective test is one in which the same score is assigned, no matter who sits the test. Scoring is objective when an item can be scored right or wrong.

b) Reliability

Reliability of a test refers to the accuracy and consistency in measurement. Reliable tests give a clear picture of what is happening. The score will be the same no matter who grades the paper, and all the students will be graded on the same task. It portrays uniformity to all on the part of the examiner and the tested. Reliable tests are also standardized in their timing. If the paper is to be done within two hours it should be timed so to all who will sit that paper. Likewise if it is to be marked out of one hundred it should be so to all. Factors that affect reliability include ambiguous test instructions, distractions during taking a test, mood of the students at the time of doing the test and inadequacy of time for the test.

c) Validity

Kiminyo, Munavi & Wamani (2007), describe validity simply as 'truthfulness' - the ability for the test to measure what it intends to measure the objectives of instruction e.g. recall, understanding etc. It relates to the purpose of testing. A test may be valid in one situation but not in another, because only the test-user knows exactly what his purposes are, the burden of deciding whether or not a test is valid in a given situation ultimately rests with him.

Content validity concerns whether the test has covered the areas taught. An educational achievement test measures what has been taught for the curriculum of that particular system. For instance a test in the British National Curriculum may not be valid for the 8.4.4. Curriculum.

Arrangement of test items should be that easier questions come first; students should not be given unfair help or allowed to cheat through copying.

d) Usability

Is the extent to which a test can be used. The teacher must consider factors such as the amount of time required to administer the test; the amount of preparation required; the ease of interpreting the test result and the cost of administering the test.

If teachers assess only the elements that are easiest to measure, students may focus only on those things. What and how teachers assess inform students what they consider important in learning.

2.3.6 Developing a Written Test

The Teachers' Guide for the New Curriculum for Primary Schools (2002) advises that while developing a test the teacher should have in mind the cognitive, affective and psychomotor domains. The teacher must also consider the time to be taken for each written test/exam.

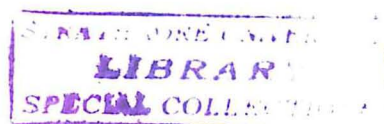
The first step in planning any test is to clarify the purpose of the test. The test constructor should state, at the planning stage, the specific course objective. A useful source of objectives for the test constructor is the Taxonomy of Educational Objectives Handbook 1: Cognitive Domain Bloom (1956). According to Bloom, there are six areas of cognitive objectives on which test can be based. These are knowledge, comprehension, application, analysis, synthesis and evaluation. Above all, a deliberate effort should be made to list the specific objectives on which the test will be based. A test must be legible to the students with correct grammar, language and meaning for the level of the students. Above all the set questions should be clear, varied, and definite and which will elicit the desired outcome. The challenge most teachers face is to design tools that test application of knowledge.

In writing objectives on which to base the test items, it is advisable to analyze the objectives of instruction to determine what activities and skills should be appraised in the test. Strategies for assessment must be related to the purposes of assessment Hills (1993). Admittedly, there are practical difficulties that often prevent satisfactory measurements of the educational objectives by means of a writing test. Nevertheless, it is incumbent on the constructor to define those specific behavioral objectives that reasonably may be expected to be susceptible to such measurement and to provide for those objectives in the outline.

2.3.7 Testing and Learning

Teachers and pupils alike talk about 'tests' often. Nsubuga (2000) points out that the need for testing is accepted by all teachers and pupils, but the value of examinations as a means of promoting learning is still debated upon by educationists. He goes on to say that some feel too much testing wastes time and are tests intimidating, while others feel frequent tests and exams take away the fear and assist pupils to internalize knowledge. Below are some points he brings out on testing learning:

- It is commonplace that teachers become diverted from the educational goals of teaching and concentrate on the task of making their pupils do well in exams.
- Exams in our system largely measure only knowledge that is thought to have been gained during the class lessons and very less of other and more important aspects of education such as life skills in daily living.
- Tests and exams are a form of educational stocktaking an inventory and give a clearer picture of the learning that has taken place, and does not rely on the vague opinions and prejudices of the teacher gathered in the course of his or her teaching.



- Tests and exams can be the fairest way of deciding on the level of instructional curriculum a pupil is at, and therefore, give a yardstick to select the ones to promote to the next level.
 - Tests and exams are also important in that they are necessary for maintaining standards. There are many instances that students have been denied progress to the next level of their studies because of poor performance and low scores.
 - Tests and exams also motivate pupils to keep the standard up as set by their teachers.
- Nsubuga (2000) also believes that without tests and exams, the students will not work or those who work hard, would have no proof of their progress.

2.4. REVIEW OF PREVIOUS RESEARCH AND OPINION ON ASSESSMENT.

2.4.1 Introduction

The purpose of literature review is to look at some of available relevant pieces of literature that have been published on the study.

2.4.2 Review of Related Literature

In her abstract paper about formative assessment which she refers to as school based assessment, Bunyi points out that for assessment to play a role in fostering quality primary education in Kenya, it must pay attention to what is assessed and the levels at which it is assessed AJES (2006).

Bunyi further states that historically that documents emanating from all post-independence educational commissions and committees in Kenya expressed dissatisfaction with learning assessment solely by means of an end of primary level selection examination. The Gachathi Commission G.o.K., (1976) castigated the end of primary examination for mainly testing the cognitive attributes. Significant assessment policy reforms were also articulated as part of the 8.4.4. structural and curriculum reforms. The policy introduced school-based continuous assessment, and assessment of a broader range of skills and attributes including attitudinal and practical skills.

The Kenya National Examinations Council (K.N.E.C.) was to issue a Kenya Primary Examinations (K.P.E.) certificate which focused on cognitive aspects of the curriculum, and the then Ministry of Education, Science and Technology (1984), was to issue a Kenya Primary Leaving (K.P.L.) certificate which would be based on cumulative school-based continuous assessment focusing on affective and psychomotor aspects of the curriculum. The 8.4.4. School Curriculum (eight years in primary school, four in secondary and four years at university) was introduced in 1985, but the idea of the K.P.L. certificate never

materialized as K.C.P.E. became a very highly competitive exam, with schools putting every effort to ensure their students passed in flying colors.

The 1999 Commission of Inquiry into the Education System of Kenya chaired by Dr. Koech pointed out that the primary school curriculum had become highly focused on examinations. This was because of the infamous ranking of schools according to their performance in the examination. Teacher's Guide for the New Primary Education Curriculum (2002), pointed out that the ranking of schools took over the school assessment especially in public schools, and the overall emphasis of assessment was shifted from the individual child to the cumulative mean score of the school, zone or District. In the process the child became a mere statistic, whereas assessment should be child-centered and not school centered. This concern in intellectual achievements meant an increase in monitoring and evaluation of the child's cognitive growth.

Administration of assessment at the primary school level in Kenya has been largely driven by a need to measure individual capacity so as to provide an objective for fair selection criteria for admission into especially the few vacancies in National and Provincial Secondary Schools, and the higher institutions of learning. Consequently, paper and pencil strategies have been emphasized and have dominated continuous assessment. Unfortunately, Bunyi AJES (2006) laments that these strategies alone do not lend themselves to measure the broader goals of education of equipping in skills and attitudes as well.

Bunyi points out that the administration of school-based assessment is flexible, and a form of formative assessment to be a constituent part of the teaching and learning process, and its goal should be the improvement of instruction and learning. She says teachers are able to diagnose individual student's problems and are thus in a position to institute timely remedial measures. She further says, "it allows the use of a wide range of assessment techniques for gathering evidence of students' learning" (pg. 25), and assesses the full range of cognitive curriculum objectives, and provides appropriate information for reporting back to parents on their children's learning, empowering parents to participate in their children's learning.

David Aduda, writing in the Daily Nation (6th January 2005) quoted the Minister of Education to having admitted that some questions in the last K.C.P.E. (2004) were literary too difficult for pupils to answer. On Kiswahili the minister said:

"It is only Kiswahili that recorded poor performance, perhaps a reflection of that fact that the paper was above the level of candidates."



It was pointed out that one of the Kiswahili passages was an excerpt from a 1986 Form Four exam, and was extracted from a book used in secondary school. The vocabulary and sentence construction was far beyond the reach of most candidates. The language also was too full of poetry which is not taught at primary school level and is usually found in the Fasihi paper of K.C.S.E. exam.

Black & William (1998), in a 10 year review of research on assessment, stated, "We know of no other way of raising standards for which such a prima facie case can be made" (pg.5). John

Hattie (1999), in his inaugural professorial lecture as Dean of Education at the University of Auckland, summarized his wide-ranging review of research on formative assessment "what works" in education with the statement that the most powerful single moderator that enhances achievement is feedback.

Royce Sadler (1989) identified three elements that are crucial to the effectiveness of formative assessment:

- helping students to recognize clearly the desired goal (understand what is required);
- providing students with evidence about how well their work matches that goal;
- explaining ways to close the gap between the goal and their current performance.

For assessment to become more dialogue than monologue, and contribute powerfully to the educational development of students, teachers should encouraged students to critically examine and comment on their own work Harlen & James (1996). They went on to point out that students gain the most learning value from assessment when feedback is provided even without marks or grades. Where marks are provided, they often seem to predominate in students' thinking, and to be seen as the real purpose of the assessment.

2.4.3 Summary of the Key Points from Research about Administration of Formative Assessment

- There is an increase in monitoring and evaluation of the child's cognitive growth at the expense of other domains
- For assessment to play a role in fostering quality primary education in our country it must pay attention to what is assessed and the levels at which it is assessed.
- Assessment has become school-centered instead of focus on the individual students because of competition.
- The overall emphasis of assessment has shifted from the individual child to the cumulative mean score of the school, zone or District. In the process assessment has become school centered instead of child-centered.

- Continuous assessments assist in achievement and raising standards of education.
- Students should be encouraged in self-evaluation.
- Feedback to students on assessment enhances effectiveness of assessment.

CHAPTER THREE

3.0 RESEARCH DESIGN/METHODOLOGY

3.1 INTRODUCTION

This chapter explains the various steps that were taken in carrying out the study in order to satisfy its objectives. The chapter describes the research design, sampling, research instruments, data collection and data analysis. The chapter also points out the assumptions and limitation of methodology.

3.2 DESIGN OF THE STUDY

A descriptive research design describes the characteristics of a particular situation Kothari (1990). The study adopted the descriptive approach using a case study to give an in-depth evaluation of The Victor's School administration of continuous tests and examinations. Mugenda & Mugenda (1999) give the definition of a case study as an in-depth investigation of an individual, group, institution or phenomenon. A case study is an intensive study of one aspect of a problem i.e. an individual case, in this regard The Victor's School, situated in Langata Division, Nairobi. The case study method provided for a wealth of detail and rich teachers' insights in the administration of continuous tests and exams through qualitative data. It is Mugenda & Mugenda (1999) who say that human behavior is best explained by use of qualitative research (pg. 156).

3.3 SAMPLING

Population refers to an entire group of individuals having a common observable characteristic, but the individuals under consideration in a study or field of inquiry constitute a universe or targeted population Orodho (2005) & Mugenda & Mugenda (1999). Sampling means selecting part of the targeted population so that conclusions may be obtained about the entire population.

In this study, the school under scrutiny is a one-stream school, and so a complete enumeration was done. Mugenda & Mugenda (1999), say complete enumeration is done when the target population is so small that selecting a sample would be meaningless. They continue to say, "Taking the whole population in such cases is advisable" (pg. 43). Accordingly, Orodho (2005 pg. 37) says, "It can be presumed that in such an inquiry, when all items are covered no element of chance is left and highest accuracy is obtained."

3.4 INSTRUMENTATION AND DATA COLLECTION

Triangulation is the use of two or more tools/methods of data collection Nachmias (1992). This approach increased the credibility of the research findings. A questionnaire and an interview schedule were used in an effort to obtain more accurate and desired information.

3.4.1 Questionnaire

Questionnaires are most commonly used instruments to collect data in education and social science research. Primary data was collected through use of a questionnaire. The questionnaire was revised a couple of times with guidance from the supervisor to check the content and relevance of the questions before it was ready for use. It was pointed out that the instructions of filling the questionnaire should be more explicit and that the questionnaire be organized into sections for easy flow of the contents questions. It was pre-tested once before administration. The advantage of piloting the research instrument as pointed out by Isaac & Michael (1981) made the researcher to obtain feedback that led to improvement of the research instrument. The researcher was able to re-phrase some questions in an effort to eliminate ambiguity, re-organize the flow of questions by grouping questions under the specific objectives, and sequence questions to have easier questions answered first. It also helped the researcher to determine the validity and reliability of the questionnaire. Fifteen questionnaires were filled.

Advantages of Questionnaires

The questionnaire contained open and closed-ended questions. The structured or closed ended questions were accompanied by a list of possible alternatives from which respondents selected the answers that best described their situations. The unstructured or open-ended items permitted the respondents to freely express their detailed responses, views and narration, and yielded maximum information and provided an opportunity for considering many different aspects of the problem. Therefore, the questionnaire was used to elicit the individual teachers' opinion and information on the awareness and perception of the administration of continuous tests and exams at the school, free from the researcher's bias. Moreover, the low cost of administering the questionnaire was favorable for the researcher.

Each item on the questionnaire was developed to address a particular objective. The questionnaire was self-administered. All data was collected at a go on one sitting to avoid the teachers discussing the questionnaire. This was also done in order to save time both on the teachers' busy schedule and the Researcher's time, and also all questionnaires were



returned together. The questionnaire guaranteed their anonymity. The teachers' consent to participate in the exercise was obtained in advance.

Disadvantages of Questionnaires

The major drawback of the questionnaire is that it is not easy to construct and responses may not be as in-depth. The researcher could not deal with ambiguous responses because there is no direct contact, and so there was no chance for probing for further information. There was also no reason or communication given for incomplete questionnaires.

3.4.2 Interviews

“An interview is an oral administration of an interview schedule” Mugenda & Mugenda, (1999, pg. 83). The researcher anticipated the interviews to give more data which possibly may not have been obtained by just filled in questionnaires. Five interviews were done to collect data based on individual experiences, from the Headteacher, one Head of Department, one newly qualified teacher less than a year, one teacher with 4-5 years of experience and one teacher over 9 years experience. An interview schedule was used and the same questions were asked to all the five teachers. The teachers were interviewed during their free lessons.

Advantages of the Interviews

Mugenda & Mugenda (1999) reiterates that the main advantage of the interview among others is that the interviewer can clarify and elaborate the purpose of the research and effectively convince respondents of the importance of the research. The interviews gave the opportunity of a genuine spontaneous conversation and more in-depth information on face-to-face contact, and as a follow up of the questionnaire to enrich it Kothari (1990). Also interviews guard against confusing the questions and so the researcher was able to clarify the questions thereby helping the respondent give relevant responses. The researcher was able to get responses to all questions unlike the questionnaire where some were skipped.

Disadvantages of Interviews

Interviews can easily introduce bias and subjectivity in the study, as responses may be influenced by reactions from the interviewer Mugenda & Mugenda (1999) and Kothari (1990), and the respondents can answer to please the researcher. Only a smaller number was involved because interviews are time consuming.

3.5 ETHICAL ISSUES

Relevant information about the purpose of the study to be undertaken was explained, and the researcher presented the introductory letter to the Headteacher of the school. There was need for:-

- a) Informed and voluntary consent on the part of the subjects to willingly participate in the research which was obtained from all those who participated.
- b) Guarantee of protection of the individual subjects from harm or victimization of any kind was given. Protection of the subjects involved application of anonymity and not disclosing the subjects' names on the questionnaire. The same were reassured that the data collected was intended for the purpose of academic research project which would also help the school to improve on the service delivery in the area of administration of continuous tests and exams only.

3.6 DATA ANALYSIS

The completed questionnaires were edited for completeness and consistency. Kerlinger (1973) describes analysis as categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions. He stresses that the purpose of analysis is to reduce data to intelligible and interpretable form in order to study and test the relations of research problems.

3.6.1 Quantitative Data

The questionnaire elicited some quantitative data. Most of it was in frequency tallies of simple either 'yes' or 'no'. Frequency tables were used to analyze the quantitative data. The tallies were cross-checked and grouped according to the specific objectives of the research.

3.6.2 Qualitative Analysis

Bryman (1989) points out that there are very few generally agreed rules of thumb for the analysis of qualitative data. Content analysis refers to attempts to summarize the data into meaningful categories according to their similarities and dissimilarities, to come up with related themes grouped according to the research specific objectives, in order to draw up some useful conclusions and recommendations.

In general the data obtained was analyzed using simple descriptive statistics, frequency tallies and content analysis using Microsoft word. The analyzed data was presented in tables for ease of reference.

3.7 LIMITATIONS

The subjects were few numbering only 15 due to the small size of the school therefore, the researcher had no choice but to work with the small number of respondents. Thus the views obtained from the questionnaire were also few.

The teachers were given one hour to fill the questionnaire. A few did not complete the last question either because they did not have the time or were not sure of what to fill.



CHAPTER FOUR

4.0 RESEARCH RESULTS/FINDINGS

4.1 INTRODUCTION

This chapter presents the analyzed findings of the responses from the research instruments described in the previous chapter. The study sought the views and opinions of teachers on the evaluation of the administration of continuous tests and exams at The Victor's School. All the 15 teachers filled and returned the questionnaires and five other teachers were also interviewed. The results/findings were summarized according to the specific objectives of the research:-

1. To establish the continuous assessment methods the teachers use
2. To explore the teachers' competence in setting tests/exams
3. To find out what teachers consider as good characteristics of a good tests/exams
4. To establish reasons why teachers would outsource exams rather than set them themselves
5. To obtain an overview of the current system.
6. To find out the knowledge of the Cognitive Theories the teachers have.

Data from the close ended questions were analyzed and presented in tables for ease of reference. Percentages were used to show frequency of responses for each question.

4.2 TEACHERS' PERSONAL INFORMATION

4.2.1 Total Number and Gender of Respondents

Table 4.1: Frequency distribution of respondents in their gender (n=15).

Gender	No. of Respondents	%
M	6	40
F	9	60
Total	15	100

Findings:

Out of the 15 respondents majority, 60% are female teachers.

4.2.2 Teachers Work Experience

Table 4.2: Frequency distribution of teachers work experience.

Variable	Less than 1 year		1 – 3 years		4 – 6 years		7 – 9 Years		Over 9 years		Total	
	No	%	No.	%	No	%	No.	%	No.	%	No.	%
Since qualified as Primary Teacher (P1)	1	7	1	7	4	27	4	27	5	32	15	100
At the current station	4	27	4	27	3	20	3	20	1	7	15	100

Findings:

- i) 5 (32%) of the teachers have over 9 years work experience,
4 (27%) with between 7 to 9 years,
4 (27%) with between 4 to 7years,
one (7%) between 1 to 3 and
one (7%) newly qualified who has not completed one year's experience.
- ii) 4 (27%) out of the 15 teachers are newly employed at the school with less than one year of work experience at the school,
4 (27%) have up to 3 years of working experience at the school,
3 (20%) with 4 to 6 years,
3 (20%) with 7 to 9, and
one (7%) teacher with over 9 years work experience at the school.

Therefore the school has teachers who are not young in the teaching profession, although more than half are newly employed at the school.

4.3 CONTINUOUS ASSESSMENT METHODS

4.3.1 Definition of Assessment

Table 4.3: Various definitions of 'assessment'

Definition of 'assessment' by teacher	No.	%
To evaluate, establish, determine how much content has been understood by the learner	12	79
Self-evaluation of the teacher	2	14
Administration of tests and exams for evaluation	1	7
TOTAL	15	100

Findings:

- i) 12 (79%) of the teachers based their definition of assessment to mean cognitive performance and capability of their pupils' knowledge domain relevant to set goals or standards.
- ii) Two (14%) defined it as self-evaluation, and
- iii) One just (7%) as the administration of tests and exams for evaluation.

Therefore the teachers said they understand the term assessment to mean capability and cognitive performance of their pupils' knowledge domain.

4.3.2 Assessment Methods Teachers Use.

Table 4.4: Frequency distribution of assessment methods used by teachers

Priority	Assessment Method Teachers Use	Frequency Out of 15	%
1	Oral Questions	11	74
2	Direct Observations	11	74
3	Structured Questions	9	60
4	Multiple-Objective	8	54
5	Matching Objects	5	34
6	True-False	4	27
7	Essays	5	34
8	Projects	6	40

Findings:

- i) 11 (74%) out of the 15 teachers placed oral questions as the 1st priority in assessment
- ii) 11 (74%) teachers placed direct observations as 2nd priority.
- iii) 9 (60%) placed structured questions at position three,
- iv) 8 (54%) placed multiple-objective questions as the fourth method of evaluation,
- v) 5 (34%) placed matching objects fifth,
- vi) 4 (27%) placed true-false sixth,
- vii) 5 (34%) placed essays seventh, and
- viii) 6 (40%) said projects should be the last assessment method for pupils.

Therefore from table 4.4 teachers stated that they mostly use oral questioning and direct observation as continuous assessment methods.

4.3.3 Reasons the Teachers Gave for Assessing Pupils*Table 4.5: Teachers' reasons for assessing pupils*

Reason for assessing pupils	Frequency	%
Teacher-self-evaluation	9	30
Identify pupil strength and weaknesses	7	23
If topic understood	11	37
For remedial teaching	2	7
For rewarding pupils	1	3
TOTAL	29	100

Findings:

- i) 9 (30%) teachers said they give assessments for self-evaluation.
- ii) 7 (23%) teachers want to identify pupils' strength and weakness and plan accordingly.
- iii) 11 (37%) teachers out of the 15 said they assess pupils to find out if the topics taught are understood.
- iv) 2 (7%) teachers said it is for remedial teaching and
- v) One teacher said for awarding the pupils.

Therefore, majority of the teachers said they assess pupils to find out if what they have taught is understood.

4.3.4. Frequency of Assessing Pupils

Table 4.6: Frequency distribution of pupils to sit tests and examinations

Variable	Tests	Exams	%
Daily	3	-	20
Weekly	2	-	14
Fortnightly	6	-	40
Monthly		4	26
TOTAL	11	4	100

Findings:

- i) 3 (20%) Teachers indicated that continuous assessments should be on a daily basis
- ii) 2 (14%) teachers stated that they should be given weekly
- iii) 6 (40%) teachers said tests and exams should be done every two weeks and
- iv) 4 (26%) teachers said exams should be done on a monthly basis.

Therefore majority of teachers said they would rather have tests and exams done fortnightly, but exams on a monthly basis.

4.4. TEACHERS' COMPETENCE IN SETTING EXAMS

4.4.1 Teachers' Preference to Set or Mark Scripts

Table 4.7: Frequency distribution of teachers' preference in setting exams and marking exams scripts

Variable	No. (n)	%
Set tests/exams	-	-
Mark scripts	-	-
Both	15	100

Findings:

Therefore, all of the teachers said they would both set and mark exams because they felt best suited to do so for their pupils.

4.4.2 Reasons given were as follows:

- I will be able to evaluate myself
- It widens my avenues of assessing the pupils
- It gives me a better understanding of the pupils' weakness
- I am the right person to set exams for my pupils and marking enables me to

identify their abilities, and gauge if they interpret questions correctly x5 responses

- Setting broadens my scope of knowledge
- Setting helps the teacher to test what he feels the pupils should have mastered
- The two are part and parcel of assessment
- I will be able to identify mistakes and make necessary corrections on the scripts especially where I have set the exams
- Exams set by different teachers widens the thinking scope of pupils, so could set for other pupils also other than mine x2 responses
- Setting different papers gives me the skill to vary and alter setting techniques which I may not get in marking scripts only.

Findings:

- From the above, 5 teachers said they would rather both set and mark exams, because they said they were the right persons to set the exams for their pupils and therefore, marking the scripts would enable them to identify their pupils' abilities, and gauge if they interpret questions correctly.
- Two teachers believe exams set by different teachers are also good for their pupils

Therefore, majority of the teachers said they would both set and mark exams because they felt best suited to do so for their pupils.

4.4.3 Teachers' Opinion about Setting Tests/Exams

Table 4.8: Frequency distribution of teachers' opinion if they felt competent in setting tests and exams

Variable	Yes	No.	%
Competence in setting tests and exams	15	-	100

Findings:

All teachers said that they felt competent in setting tests/exams.

4.4.4 Reasons Teachers Feel Competent to Set Tests and Exams

The following were responses from the teachers:-

- I know the scope of the content x3
- I understand the learners x4

- Because I have knowledge of the syllabus demands x1
- I test what is taught x6
- Because I am able to vary questions according to Bloom's Taxonomy x2
- Because I set objectives for the tests and exams x3
- Because I have the guiding principles of setting tests and exams x3

Therefore, out of the above reasons which make teachers feel competent to set tests/exams, the reason 'I test what is taught' had the highest frequency of 6 teachers, followed by 'I understand the learners' with a frequency of 4.

4.4.5 Objectives for Tests and Exams

Table 4.9a: Frequency distribution of teachers setting objectives on which to base test questions

Variable	Yes	No. (n)	%
Sets objectives for test/exam	15	-	100

Findings:

- All teachers stated that they set objectives on which to base their test and exam questions.
- However not all teachers stated test/exam objectives

Table 4.9b: Objectives the respondents stated

Objective Set	No. (n)	%
Test/exam objectives	6	41
Lesson objectives	5	31
Not 'smart' objectives	2	14
Blank	2	14
Total	15	100

Findings:

- 6 out of the 15 stated *tests/exams* objectives,
- 5 stated *lesson* objectives instead,
- 2 were not smart objectives and
- 2 were blank.

The 6 test/exam objectives stated were:

- By the end of the test the learner should be able to answer questions which require reasoning, recall, analyzing etc
- To be able to test the cognitive ability of the learners by the end of the test
- To be able to ascertain the learners' knowledge of a certain topic as at a given time
- To determine whether the content/concept taught was understood and internalize by pupils
- To enable the teacher to know if the children understood the concepts and can remember
- By the end of the test be able to answer all questions.

The not 'smart' objectives responses were:

- Knowledge objective
- Eye-hand co-ordination.

4.5. CHARACTERISTICS OF GOOD TESTS/EXAMS

4.5.1: What Teachers Consider as Good Characteristics of a Good Test/Exam

Responses given were as follows:

- Should test what it is meant to test x4 responses
- Be short and clear
- Legible
- Test different topics x2 responses
- Within the thinking standard of the learner x2 responses
- Should not be too direct that the answer is obvious x2 responses
- The language must be of the learners' level x10 responses
- Should not have more than one answer
- Should have different techniques used - pictorial, structured, multiple choice
- Within the syllabus taught x12 responses
- Should carry the tenets of Bloom's Taxonomy x4 responses
- Should categorize high, middle and low achievers x2 responses

Therefore:

- Emphasis of good characteristics of tests/exams was placed on 'testing within the syllabus' which had 12 teachers' responses and
- 'The language used must be of the learners' level' had 10 responses

4.6 OUTSOURCED VERSES INTERNALLY SET EXAMS

4.6.1 Who Should Set Tests/Exams

Table 4.10: Frequency distribution of teachers thinking as to who should set tests/exams in the school

The Test/Exam Setter	Frequency	%
Class Teacher	-	-
Subject Teacher	3	22
Head of Department	-	-
The Subject Panel	10	71
Headteacher	-	
Other (to specify)	1	7
Total	14	100

Findings:

- 3 (22%) out of the 15 respondents said the subject teacher should set
- 10 (71%) said the subject panel should and
- One teacher only said other teachers not those at the school should set tests/exams.
- The 15th respondent said the Subject Teacher, Head of Department and Subject Panel should set tests and exams

Therefore the teachers said the subject panel members are best suited to set exams for the pupils.

4.6.2 Reasons given were as follows:

i) *Subject Teacher:*

- All the 3 respondents had the same reason: the subject teacher understands his pupils well and knows what topics of the syllabus have been covered

ii) *The Subject Panel:*

- The members know their department and are able to identify what to set for exams.
- Subject teachers form subject panels and can therefore allocate for themselves different classes which they do not teach and set exams
- In a panel there is an influx of ideas and experience which can be shared to produce a standard exams compared to one teacher setting alone.
- To avoid bias because if left for the subject teacher to set he/she might end up setting what he/she has taught and not the syllabus as it should be.

iii) *Other – teachers in other schools:*

- Other teachers do not see things the same way
- It opens up new ideas and ways of testing
- Saves time
- The 15th respondent's reasons were that the subject teacher knows the topics to be tested
- The subject panel is able to set reliable exams because they will moderate it
- The head of panel is able to assess the learning taking place therefore can be in a position to set exams

4.6.3 Out-Sourced Verses Internally Set Exams

Table 4.11: Frequency distribution of out-sourcing exams or setting internally

Variable	Frequency	%
Out-source	2	13
Set internally	2	13
Both	11	74
Total	15	100

Findings:

- Majority of the teachers said they would prefer both internally and out-sourced exams for the pupils

4.6.4 Reasons Given:

i) For 'Both'

- Internally set exams test what the teacher has taught but out-sourced exams can test widely
- Helps to gauge the teacher's work compared to other teachers' work
- The two compliment each other; out-sourced expose and give comparison of the learners' abilities
- Pupils will have an idea of answering differently set questions from different setters internally and externally because of the different setting techniques
- Out-sourced exams give a different type of challenge to learners
- Teachers also learn from externally set exams as they improve on their own setting

ii) For 'Out-sourced'

- Out-sourced exams are not biased or prejudiced towards certain aspects of teaching
- Increases the learner's exposure to variation of testing techniques.

iii) For 'Internally set'

- Different subject teachers can research and come up with valid exams
- Internally set exams give a clear view of achievement of instructional objectives whereas externally set exams test beyond what the teacher has taught

4.7. IRREGULARITIES IN ADMINISTRATION OF EXAMS

4.7.1 One Best Suited to Invigilate Exams

Table 4.12: Frequency distribution of who teachers consider as best suited to invigilate tests and exams.

Invigilator	Frequency	%
Class Teacher	-	-
Subject Teacher	7	47
Head of Department	-	-
The Subject Panel	3	20
Headteacher	-	-
Other (to specify)	5	33
Total	15	100

Findings:

- Therefore, the teachers felt the subject teachers are best suited to invigilate exams.

4.7.2 Reasons Given:

i) For 'Subject Teacher' All the 7 (47%) respondents commented that the subject teacher:

- Understands the learners and the subject content well
- Is better placed to address issues which may arise during the exam

ii) For 'Subject Panel'

- The subject panel member is familiar with the exam and can assist the pupil during the exam without any bias

iii) For 'Other'

- 2 of the respondents said any teacher can invigilate so long as she/he follows the rule of invigilation
- The other 3 teachers said subject teachers should not invigilate their own classes to avoid guiding pupils to the right answer/s and cheating.

4.7.3 Rules Teachers Would Enforce during Tests/Exams

- To maintain silence x7 responses
- Read questions carefully before answering x 2 responses

- No distraction of any kind
- Be calm and concentrate, not rush over questions, use time well x7 responses
- Ensure well prepared with required stationery for the exam x3 responses
- No cheating or referring to books
- Avoid walking in and out of exam room e.g. going to toilet x 2 responses
- Keep all books and any written material out of exam room
- *Adhere to exam code*

Therefore, the need for silence and to be calm and to concentrate so that there is no rush over answering questions seem to be of importance to the teachers when pupils sit their exams.

4.7.4. Action Against a Pupil Caught Cheating

- Discontinue the child from sitting the paper
- Cancel the paper x2 responses
- Withdraw the exam and give another if possible
- Deduct a percentage of marks x3 responses
- Report the pupil and deduct marks
- Score zero, give supplementary paper and counsel the child x7 responses.

Therefore majority of the teachers would cancel an exam and give a supplementary paper where a pupil is caught cheating the exam, and counsel with the child.

4.8 EVALUATION OF THE CURRENT SYSTEM

4.8.1 Teachers' Views Whether Administration of Continuous Assessment Test and Exams are Given the Seriousness they Deserve

Table 4.13: Teachers' seriousness on administration of assessments.

	Frequency	%
Yes	3	20
No	12	80
Total	15	100

Findings:

- Only 3 teachers felt administration of continuous assessment tests and exams are given the seriousness they deserve. This gave 20% only
- 12 (80%) of the teachers did not think so.

4.8.2 Responses on Positive and Negative Elements

Table 4.14: Responses on Positive and Negative Elements

Positive Elements	Negative Elements
<ul style="list-style-type: none"> a) Helps pupils to revise and prepare for exams b) Helps to evaluate individual learner's performance c) Monthly exams are good d) Sitting both internal and external exams is good e) Motivates the learners f) Creates competition amongst learners g) Panel heads try to vet exams h) Caters for the learners' needs i) Awarding teachers and pupils j) Helps gauge one-self with earners k) Adds value to learning especially where there are new testing techniques l) Organized exam panels & co-ordination m) Regular testing which keeps learners alert n) Pool setting and marking is good o) Results are graded p) Helps pupils to develop a reading culture q) No known cases of exam cheating. 	<ul style="list-style-type: none"> a) Lack of tangible rewards for pupils who well b) Exams can frustrate and demoralize pupils & teachers as some take them as a formality c) No definite times set for exams d) Topical tests are not consistent e) Too much testing takes teaching time f) Sometimes the quality of exam papers is poor g) Administration of poor quality exams h) Weak learners lower mean scores thus discouraging both teacher and other learners i) Test results not included in summative results j) Some exam setters test beyond what is covered by pupils k) Some grades given can traumatize learners l) Poor moderation of exams which leaves exams with mistakes m) Some teachers are not vigilant in invigilation n) Sometimes teachers delay in setting and then moderation is not done properly or not at all o) Exams must be analyzed and discussed by teachers after they

	<p>are done</p> <p>p) When teachers feel topic understood by pupils they tend to skip the tests</p> <p>q) Makes pupils revise for exams only at expense of topical tests</p> <p>r) Some exam papers are beyond the level of the learners</p>
--	--

4.9 TEACHERS' SUGGESTED RECOMMENDATIONS

- Exams need not be set by one teacher. For instance, a paper of 50 questions can be set by 5 teachers each given a section or topic to handle.
- Exams can be set over holiday time which will give teachers ample time without rushing through the exercise.
- Exam instructions must be thoroughly explained to pupils before exams start and point out cancellation of an individual pupil's paper if found contravening instructions.
- Every test done must be graded and add mark to final grade of the pupils.
- Performing pupils should be recognized and awarded.
- Regularize panel meetings on exam updates.
- Regularize tests to be done fortnightly and exams on a monthly basis.

4.10 KNOWLEDGE OF PIAGET'S COGNITIVE THEORY

4.10.1 *Table 4.15: Frequency distribution of teachers' responses*

Answers Given	Frequency	%
Correct	6	40
Wrong	3	20
None	6	40
Total	15	100

Findings:

- Only 6 (40%) teachers were able to correctly explain Piaget's cognitive development theory

- 3 (20%) gave wrong answers and
- 6 (40%) did not attempt the question at all

Therefore, the teachers do not have basic knowledge of cognitive theories of development.

Table 4.16: showing correct responses of the 6 teachers

Name one stage	State focus of the theory	Application to teaching and assessing
-Sensory-motor	-To understand the child's cognitive development	-What & when to teach what and methodology
-Sensory-motor	-Children use their senses in learning	-Pupils will see the teaching aids and help in learning
- Sensory-motor	-Ability to think and reason critically	-Teach pupils according to their mental abilities
-Concrete operational stage	-Abstract thinking	-Identify learners who can manage logical thinking
- Sensory-motor stage	-Retention of knowledge and remembrance	-Enable to understand pupils well
- Concrete operational stage	-Take the pupils according to their abilities.	- Helps to focus on each student as an individual

CHAPTER 5

5.0 SUMMARY AND CONCLUSION, DISCUSSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This last chapter presents summary, conclusions, discussion and recommendations. Finally it suggests opportunity for further research.

5.2 SUMMARY

5.2.1 Objectives:

The objectives of the study were to find out what assessment methods the teachers use, explore their competence in setting exams and tests, and to find out what teachers consider as good characteristics of a good exam, as well as to establish why the teachers would out-source exams rather than set them themselves. The study also sought to find out what knowledge of the Cognitive Theories the teachers have.

The study sought to evaluate the current system of administration of continuous tests and examinations and point out the issues arising out of the current system in place, in order to form a basis for formulation of a comprehensive regulations and policy guideline, and to inform teachers of the expected standard in future.

5.2.2 Methodology:

In order to meet these objectives, primary data was collected using a questionnaire which had both structured and unstructured questions and face-to-face scheduled interviews. The data was edited and cross-checked by the researcher.

To facilitate effective analysis, the data was analyzed and categorized according to the research objectives. Simple frequency tables were used to present the data.

5.2.3 Findings:

Based on the results of this study, it was concluded that the following were the findings in summary:

- a) In establishing the continuous assessment methods the teachers use, most of them said they understood the term assessment to mean capability and cognitive performance of their pupils' knowledge domain.
- b) The teachers said they assess pupils to find out if what they have taught is understood. From table 4.4 teachers stated that they mostly would use oral

questioning and direct observation as continuous assessment methods. The teachers said they would rather have tests and exams done fortnightly, but exams on a monthly basis.

- c) On competence to set tests and exams, all teachers said that they felt competent to do so. Out of the reasons which make the teachers feel competent to set tests/exams, the reason "*I test what is taught*" had the highest frequency of 6 teachers' responses, followed by "*I understand the learners*" with 4 teachers' supporting this.
- d) The reasons that teachers gave to support that they would rather both set and mark exams and not just to either set or mark scripts centered on the fact that they felt it is part and parcel of the teaching process. Although most teachers said that the subject panel members are best suited to set exams for the pupils (table 4.4) and not the subject teachers, majority of them also said they would prefer both internally and out-sourced exams for the pupils. So much as the teachers felt obligated to set exams, they still valued and appreciated exams set by external examiners.
- e) All teachers stated that they set objectives on which to base their test and exam questions. However not all teachers stated test/exam objectives. Only 6 teachers out of the 15 stated *tests/exams* objectives, while the rest either did not understand the question or could not differentiate *test/exams* objectives from *lesson* objectives.
- f) The teachers placed emphasis of good characteristics of tests/exams to be "*testing within the syllabus*" and "*the language used must be of the learners' level' syllabus*" which had 12 and 10 teachers' responses respectively, meaning exams should be valid and test what they are intended to test.
- g) The teachers also felt the subject teachers are the ones best suited to invigilate exams. They expressed that it is important for silence to be maintained during exams and that the pupils should not engage in any form of communication to each other, and to be calm and concentrate during tests and exams so that the pupils do not rush over answering questions, but answer them carefully. These points would be enforced as rules of conduct during exams. Majority of the teachers expressed that they would cancel an exam and give a supplementary paper where a pupil is caught cheating the exam. It was also stated that such pupils should receive counsel.
- h) Teachers themselves felt they do not take invigilation seriously. When they invigilate tests and exams they are supposed to ensure pupils write their names and date, and that they number the answers correctly. Sometimes this does not happen as there are cases of exam scripts without name labels. Teachers interviewed revealed that some

teachers do their personal work like marking, and writing lesson notes and plans at the expense of invigilating the exams.

- i) On the overview of the current system, only 3 out of the 15 teachers' responses felt that administration of tests and exams is given the seriousness it deserves. A lot of responses both positive and negative elements were pointed out as seen in table 4.14, and on the knowledge teachers have of cognitive theories, only 6 teachers were able to comment on the same. This means that there are various issues about the current system that need to be sorted out and solution found.
- j) Most of the teachers do not have basic knowledge of cognitive theories of development.

Looking at the research findings pertinent to the research hypothesis, this study confirms that at The Victor's School there is no significant relationship between a teacher's years of work experience and their administration of continuous assessment of students.

Taking for example the objective on the teachers' knowledge of Piaget's Cognitive Theory, six teachers did not attempt to answer this section and three answered wrongly. Out of them, three have over nine years of teaching experience, two have between seven and nine years and only one with less than three years of teaching experience.

On the question whether teachers set test/exam objectives, only 6 out of the 15 stated *tests/exams* objectives, and 5 stated *lesson* objectives instead.

Of the 6, three have over 9 years of experience, one between 7 & 9, and the two between 4 & 6 years.

Of the 5, two have between 7 & 9 years of experience, one over 9 years, and 2 below 3 years of teaching experience.

Hence what the researcher can conclude on the hypothesis is that some teachers have forgotten some concepts of teaching since they left college, although they have hands on experience on administration of tests and exams. The more newly qualified teachers remember their theory from college days, but have to learn more on practical tips about setting exams.

5.3 CONCLUSION

The purpose of this study was to evaluate the administration of tests and exams at The Victor's School in order to come up with a policy guideline document. From these results and findings it can be concluded that there is an urgent need to develop and formulate the manual, which will provide for rules and regulations in as far as administration of tests and examinations at The Victor's School is concerned. It can be concluded that the teachers have a good idea of the administration and the importance of tests and examinations, the major problems is the lack of a written policy guideline in carrying out this duty, as each teacher has his/her own opinion and views as to how the tests and exams can be conducted as seen from the varied responses given in the questionnaire, and especially the fact that the teachers themselves felt administration of tests and exams is not given the seriousness they deserve. This suggests that the teachers are also in the best position to provide the necessary and valuable input for formulation of this document. The document will provide direction and guidelines on procedures to be followed in order to streamline this important activity of the school.

5.4 DISCUSSION

This being a primary school, all the teachers in the lower school are females which explains the higher number of female teachers in the school.

From these results and findings it can be concluded that if the teachers did not have a clear understanding of the terminology assessment, then their responses to the questionnaire would have been void. So it was important for the researcher to ensure an understanding of the terminology 'assessment' from the teachers as this was to provide a compass for answering correctly the rest of the questionnaire.

It is also worth noting that teachers placed emphasis on the cognitive domain (not affective and psychomotor) aspects of assessment and this may be because of the fact that the direction the study took was more on the academic output.

5.4.1 Composition of Teachers and Their Work Experience

The questionnaire revealed that the school has relatively newly employed teachers. This may have been one of the causes of poor administration of tests and exams at the school in particular, especially if these newly employed teachers (*4 out of the 15 are less than one year old at the school, and another 4 with not more than 3 years old at the school*) may not have received the necessary orientation on the administration of tests and examinations upon appointment, and emphasis placed on the importance of the same at the school. It

emphasizes the urgent need for the quick formulation of the policy guideline manual as part of the important tools in orientation and induction of new teachers in the school.

5.4.2 Continuous Assessment Methods the Teachers Use

Teachers in the classroom are the primary assessors of their pupils. Assessment requires teachers to be aware continually of the purpose of instruction. The study proved this because it revealed that 79% of the teachers (table 4.3) wanted to establish how much content of their teaching has been understood by the learners. This the teachers would do through oral questions as they teach (table 4.4). Assessment provides teachers with useful information to successfully fulfill their responsibilities and to support children's learning and development; oral questioning is the quickest method of establishing if learning has taken place. It is also an easy method to employ because the teachers can ask questions as they teach, and the method remains suitable for pupils in any cognitive developmental stage. Oral questioning as a method of assessment best provides for comments to the pupils and informal assessment by the teachers

Authentic assessment tasks are not only tests of the information students possess, but also of the way their understanding of a subject has deepened, and of their ability to apply learning. This is important since learning results in a change in behavior. And so testing and assessment that will help pupils to improve in their cognitive capacity is the best. The teachers placed structured questioning as third place in their methods of assessment. Structured type of questioning whether in topical tests or exams should be encouraged, as these encourage pupils to think more than objective multiple choices which encourage guess work. Authentic assessment tasks like these demonstrate to students the relevance and importance of learning. Thus oral questioning by itself only is not a sufficient way of assessment, although majority of the teachers gave it priority.

Informal types of assessment are the most appropriate for pupils in lower. Such assessments for example story-telling are qualitative in nature, allowing pupils to demonstrate what they know in situations that are familiar and comfortable to them, and permitting teachers to document their progress. However, this should not be at the expense of organized written tests/exams. Performance-based tests are also a way of consolidating student learning.

Through interviewing the teachers it was revealed that because multiple objective questions are the most used items in exam assessment even country-wide, most teachers would have experience of setting them as compared to structured questions, also because marking multiple questions is quantitative in nature and so very objective because the

answer is either right or wrong as compared to the structured questions which may be qualitative in nature thereby requiring more thought in zeroing in for the right answer. Whatever method the teacher would use, care must be taken to ensure assessments and evaluation contribute to the growth of the student and that in no way destroys him. It should encourage him but give him an idea of the progress he has made.

5.4.3 Characteristics of a Good Test/Exam and Out-Sourced Exams

Issues of fairness, reliability, validity legibility and simple language were mentioned by almost all teachers. Most teachers were categorical that a good test/exam must reflect what is taught. Indeed effective assessment focuses on what students have learned and can do. Assessment must be equitable and offer opportunities for success to every student.

Interviews conducted further confirmed that many a times externally set exams would have the language above the pupils' level and other times over test, meaning questions would be set from areas not yet taught by the teachers. This brings in the insight that the teachers should therefore, be ready to set exams for their pupils and rely less on externally set exams which to them are of a higher standard. Alternatively, teachers will have to improve on their teaching and syllabus coverage speed so that they can be at par with external teacher examiners who set advanced exams so to speak. This can overcome the problem of 'over testing' our teachers are experiencing.

5.4.4 Teachers' Competence in Setting Tests/Exams

As teachers take full control of teaching and assessment in their classes, their professional competencies are more challenged. By trying to rise to the challenges, the teachers can develop their professional competencies even further. Although all teachers said that they were competent in setting exams, most still do not mind external exams as stated above. Some said externally set exams save on the teachers' time as they would have ready set exams and so concentrate their time in other teaching activities. Most teachers however, agreed that outsourced exams widen the thinking scope of learners because of different styles of setting exams from that of their teachers, and also would give teachers a chance to learn new tricks and styles of setting exams too.

The head of subject panel interviewed however, felt some teachers are not very competent in setting exams because he would pick areas of corrections and that some teachers set questions which would be too easy or hard for the pupils. He also pointed out the lack of originality and creativity. For instance, he emphasized that teachers should compose comprehension passages instead of using the ones in the textbooks, as pupils' chances of reading through these would be high, and so marring the validity of exams. To

effectively assess what students have learnt and can do, teachers need to be creative, use a variety of strategies and approaches, a wide range of appropriate instruments and assessment tools.

Again not all teachers place emphasis on the importance of having test/exam objectives. Setting objectives takes away the subjectivity in assessment and so if teachers do not have specific, measurable, attainable, reasonable and time-framed objectives (SMART) in assessment, the need to assess may not be focused, therefore leading to inadequate or inappropriate assessment. Setting objectives helps teachers attain their targets. This point is supported in the literature review. If teachers do not set objectives, they may not be able to develop test tools which have hierarchies of increasing complexity. For example the cognitive domain has six levels objectives, increasing in complexity:

- Knowledge (recognition and recall of information that the learner has acquired)
- Comprehension (understanding or translating information)
- Application (uses information in a new context, producing desired behavior and appreciation of values)
- Analysis (separates into parts to reveal new relationships, logical thinking, critical thinking)
- Synthesis (combines elements to create a new situation)
- Evaluation (involves judgment or decision making)

Newble and Cannon (1994) suggest that for practical purposes when developing learning objectives the six domains can be 'collapsed' into three general subdivisions namely:

- Recall of information
- Understanding
- Problem solving.

Teachers should design assessment to determine the extent to which learners acquire instructional objectives and to improve quality of teaching and learning. These can be major objectives in the administration of tests/exams.

If teachers keep this in mind, the exams tests that they set would be all rounded in so far as assessment of the cognitive domain is concerned. Thus having tests/exams objectives gives guidance to teachers in this task.

5.4.5 An Overview of the Current System

The teachers said they would rather have their pupils do random tests and topical tests fortnightly, but exams on a monthly basis. On interviewing the teachers, it was revealed that there are documented records of monthly exams and hardly any on topical fortnightly tests. Since there is no policy to enforce fortnightly tests, teachers do not put great consideration of the importance of topical tests in administration of continuous assessments, as they do for exams. Research findings (table 4.13 & 4.14) actually confirm that teachers are not serious enough about assessment. Some teachers test weekly others fortnightly and others not. Assessment that will be woven into daily instruction will offer students frequent opportunities to gain feedback. Continuous assessment also provides ongoing opportunities for teachers to review and revise instruction, content, process emphases. A policy guideline manual will therefore, ensure guidance, uniformity and adherence, and even help the administration of the school to assess teachers and have a basis to take action against teachers if they fail to comply with set rules and regulations.

The integrity of administration of tests and examinations, and the extent to which any assessment data or tests and/or exam analysis will inform teaching and influence learning will depend on how the assessment tool is:-

- a) set,
- b) moderated and how the marking scheme is set,
- c) stored in custody before administration to combat leakage,
- d) administered in integrity in terms of the conduct of both the assessor and the candidate during the assessment and
- e) how it will be marked and tallied.

If any of the above is faulted the validity of the assessment will be doubted, then the whole assessment becomes a futile exercise.

The Daily Nation newspaper (1st March 2008) was quoted stating that schools, teachers and parents provide all what it takes to make the students pass. The local Daily continued to point out that irregularities mar the administration of the exams. It added, "According to documented figures read out by the Education Minister ...there were 1,875 cases of exam cheating last year." It does not matter how well set and good an exam may be, it becomes invalid if not conducted in integrity and to avoid cheating.

A few teachers commented that the exam time given in lower school should not be the same as in the rest of the classes in upper school because then the exam becomes too long, or the time too much for the lower classes pupils, causing them to fidget and talk and

start to be disorderly during exam time. Teachers said poor time management by the pupils causes some pupils to finish early, and some fail to finish the papers. For slow pupils, exams prove a challenge because they do not complete their papers.

The conduct of both the assessor and the candidate during the assessment therefore, must be conducive to avoid distractions and disorderly behavior in the exam room. Teachers must be seen to be serious with exams if pupils are also to take exams seriously. Some teachers reported that some walk in and out to the toilet even during exams.

5.4.6 Knowledge of Cognitive Theories.

Teachers who have adequate knowledge of the way children develop concepts and skills can use typical classroom tasks for example projects, for assessing their progress. It remains the responsibility of the teacher to gauge the age and abilities of his/her learner so as to give the right activities and ask the right questions in tests and exams that they are able to tackle. This also explains the reason project method of assessment was ranked last by the teachers, in the order of priority for methods of assessment (table 4.4) because the teachers have a misconception that project work is for older learners, yet even pupils in class one can be assessed through project work. Teachers who understand that the cognitive developmental stages have structural features (Figure 1 on page ...) that permit their pupils at different stages to possess certain types of knowing and understanding necessary for answering the different level questions, can actually tailor assessments accordingly to be valid for their pupils. Kiminyo, Munavi & Wamani (2007) explain that any learning task should be tuned to the developmental stage of the child. So different methods of assessment can be used for different pupils at different cognitive developmental stages, so long as it is tailored to suit them. And so by becoming familiar with the models of cognitive development of their students, teachers at all levels will be able to better teach and serve their students. Parkay & Stanford (2004).

5.5 RECOMMENDATIONS

The policy manual and guideline document need to be urgently prepared so that it can provide more insight for the teachers of what is the required standard of setting exams at the school.

From the study it is clear that first and foremost the teachers require in-service programs to refresh their skills and knowledge in the administration of tests and exams. There is a lack of a systematic way of ensuring teachers get continuous education and in-service to enable them keep abreast with new trends of practice in continuous assessment

and examining the pupils. The Management Team and Administration will urgently plan for this to ensure teachers provide quality exams to the learners.

The teachers need to be encouraged to set and mark more tests/exams so that they sharpen their skills, especially since all of them actually affirmed that they feel competent to do so.

Most of the teachers were against setting exams for the subjects and pupils they teach because they felt they would be tempted to leak the exam. It needs to be pointed out to the teachers that a teacher must have credibility in integrity in matters of confidentiality of exams, and that they need to maintain professionalism and credibility if exams were to be valid for their pupils. It will be interesting to find out what will happen both to the pupils and the teachers when they set exams for the pupils they teach. This will help to uncover whatever mystery or fear, and address the issue accordingly.

Topical tests will be streamlined and given on a regular basis. This will help the Management identify teachers who will be slack, and also finding out the number of times tests are given to each class per subject.

From the interviews of the teachers it was recommended that psychological preparation of the pupils before exams is very important and should be done to ensure alleviation of unnecessary anxiety which results in misconduct in the exam room. The school will provide pencils and erasers especially to the lower school classes during exams to curb pupils talking and borrowing these items from one another.

In future all pupils will be allowed a few minutes in the washrooms to relieve themselves to avoid walking in and out of the exam room. Pupils will also not be allowed out of the exam room before time is up even if any finish early before time.

There is also an unexploited opportunity to network and learn more about the varied methods of assessment and exam-setting from other teachers in other schools, instead of our teachers just receiving external exams set by other teachers.

The School Management will reinforce Teacher Performance Appraisal as a key performance monitoring technique that provides feedback necessary for reviewing and directing activities towards the attainment of organizational goals.

Importance of educational action research within the institution in various other areas of operations in the school will be done This will provide a basis for 'knowing' in order to guide practice and provide for teaching practices in all areas.

5.5.1 SUGGESTIONS FOR FURTHER RESEARCH.

From the findings of this study, it is evident that further research is necessary.

Recommendations for further research are proposed as follows:

- Similar studies should be done in both private and public schools in urban and rural areas to compare results
- The Quality Assurance department at the Ministry of Education could also do research similar research in institutions of higher learning and especially teacher training institutions
- The IHEDS department at Strathmore University could carry out such a research on its own lecturers

APPENDIX 1

LETTER OF INTRODUCTION

TO WHOM IT MAY CONCERN.

Dear Sir/Madam,

RE: RESEARCH PROJECT: DATA COLLECTION BY SARAH OMONDI.

This is to confirm that the above named is a student at Strathmore University, and is currently undertaking a Research Project in partial fulfillment for the award of Postgraduate Diploma in Educational Management.

Kindly accord her your assistance.

Yours faithfully,

Patrick Kibui

Programme Coordinator Educational Diplomas.

APPENDIX 2

QUESTIONNAIRE.

Teachers' Questionnaire on Evaluation of Administration of Continuous Tests and Examinations: A Case Study at The Victor's School.

SECTION A:

General Instructions to the Respondents

- 1) Your careful, complete and honest answers to this questionnaire are highly appreciated
- 2) The information you give will be use to develop The Policy Guidelines Document on Administration of Continuous Assessment and Examinations at The Victor's School
- 3) In answering this questionnaire please bear the following in mind:-
 - a) The questionnaire is not a test and there are no grades or mark attached to the answers you will give
 - b) Your individual identity is guaranteed
 - c) Please give reasons where asked. Do not leave blanks
 - d) Kindly read every question carefully before answering, it will take you only about 20 minutes to complete the questionnaire.

SECTION B:

Personal Information

1. How many years of teaching experience do you have? *Tick one*
 - i) Less than one year []
 - ii) 7 – 9 years []
 - iii) 1 – 3 years []
 - iv) Over 9 years []
 - v) 4 – 6 years []
2. How many years have you worked at your current station? *Tick one*
 - i) Less than one year []
 - ii) 7 – 9 years []
 - iii) 1 – 3 years []
 - iv) Over 9 years []
 - v) 4 – 6 years []



SECTION C:

Specific Objectives

A. To Establish the Continuous Assessment Methods Teachers Use

3. Define the term 'assessment'

.....
.....

4. List the following assessment styles or methods that you use in order of priority. (*Use the space provided*).

Oral questions, objective multiple choice, true-false, essay type tests, completion/structured tests, matching items, project work, direct observation of pupils in class.

i..... v.....
ii..... vi.....
iii..... vii.....
iv..... viii.....

5. Give two reasons why you assess pupils.

i).....
ii).....

6. Specify how often you think continuous assessments tests and exams should be done.

Daily; Weekly; Fortnightly; Monthly; Every six weeks; At mid-term; End-term

.....
.....

B. To Explore the Teachers' Competence in Setting Exams

7. Would you rather set exams or mark scripts or both? (*Tick one*)

i) Set exams [] ii) Mark Scripts [] iii) Both []

Give reasons

.....
.....

8. Do you feel competent when preparing continuous assessment tests and exams?

(*Tick one*)

i) Yes [] ii). No []

Give reasons:

.....
.....

9. Do you state the objectives on which to base your test questions? (*Tick one*)

- i) Yes [] ii). No []

If Yes, state one such objective

.....
.....

If No, state why

.....
.....

C. To Find Out What Teachers Consider as Good Characteristics of a Good Test/Exam

10. List at least three characteristics of a good test/exam

- i)
ii).....
iii).....

D. To Establish Reasons Why Teachers Would Outsource Exams Rather Than Set Them Themselves

11. Who do you think should set exams and tests in a school?

- i) Class teacher [] ii) Subject Teacher [] iii) HOD []
iv) The subject panel [] v) Headteacher [] iv) Other Specify []

Give reasons

.....
.....

12. Do you think tests/exams should be out-sourced or internally set?

- i) Out-sourced [] ii) Internally set [] iii) Both [] (*Tick one*)

Give reasons

.....
.....

E. To Establish What Teachers Consider as Irregularities in the Administration of Tests/Exams

- 13 Who is best suited to invigilate continuous assessments tests and exams?
i) Class teacher [] ii) Subject Teacher [] iii) HOD []
iv) The Subject Panel [] v) Headteacher [] iv) Other Specify.....

Give reasons

- 14 What rules would you enforce for pupils' conduct during tests/exams?
i)
ii)

15. What would you do to a student whom you catch copying during tests/exams
.....
.....
.....

F. Evaluation of the Current System

16. Appraise the administration of continuous assessment tests and exams at the school
a) Two positive elements
i)
ii)
b) Two negative elements
i)
ii).....

17. Do you think administration of continuous assessment and exams are given the seriousness they deserve?
i) Yes [] ii). No []
Give reasons.....
.....
.....

G. Recommendations

18. Suggest ways of improving on our administration of continuous assessments and exams.

.....
.....
.....

H. To Find out Teachers' Knowledge of Piaget's Cognitive Theory

19. Name one stage of Piaget's Cognitive Theory

.....
.....

20. What is the focus of this cognitive theory?

.....
.....

21. How will this help you in your teaching?

.....
.....

Thank you for participating!

APPENDIX 3

INTERVIEW SCHEDULE

1. Describe what you would term as “experience” in setting tests and exams in the area of your operations as a teacher.
 2. In your opinion what are the characteristics of a good test/exam?
 3. Give your reasons as to who should set and mark tests and exams at the school.
 4. What is your observation of the conduct of exams and tests in our school?
 5. Give your recommendations.
-

BIBLIOGRAPHY.

- Asiachi, A. & Okech, J., 1988, *Education Part 2, Curriculum Development: Lecture Series*, University of Nairobi. Nairobi.
- Berger, K. S., 1998, *The Developing Person Through the Life Span*, Worth Publishers, New York.
- Bible, New International Version, Zondervan, Grand Rapids, Michigan.
- Black, P., & William, D., 1998, *Assessment and Classroom Learning: Assessment in Education*, Phi Delta Kappan, New York.
- Bloom, B., 1956, *Taxonomy of Educational Objectives: Handbook 1 Cognitive Domain* in Asiachi, A. & Okech, J., 1988, *Education Part 2, Curriculum Development: Lecture Series*, University of Nairobi. Nairobi.
- Bryman, A., 1989, *Research Methods and Organization Studies*, Unwin Hyman, New York.
- Bunyi, G., 2005, 'School-Based Assessment: An Unattainable Good in Kenya's Educational System?' *African Journal of Educational Studies*, Vol. 1 No. 2pg 24-29.
- Case, R., 1985, *Intellectual development: Birth to adulthood*, Academic Press, Orlando.
- Castetter, William, 1992, *The Personal Function in Educational Administration*, New York, Macmillan Publishing Co.
- Ceci, Stephen J., 1990, *On Intelligence.. More or less: A Bio-ecological Treatise on Intellectual Development*, N. Prentice Hall, Englewood Cliffs
- Crooks, T., 1988, 'The Impact of Classroom Evaluation Practices on Students' *Review of Educational Research*, 58, 438-481.
- Crosser, S., 2005, *What Do We Know About Early Childhood Education? Researched Based Practice*, Thomson Delmar Learning, New York.
- Eble, Kenneth E., 1997, *The Craft of Teaching*. Jossey-Bass Publishers London.
- Griffin, G., 1994, *School Mastery*, Lectern Publications Ltd., Nairobi.
- Hills, T. W. (1993). 'Assessment in context: Teachers and children at work,' *Young Children*, 48(5), 20-28.
- Harlen, W., & James, M., (1996). *Creating a Positive Impact of Assessment on Learning*. Paper presented at the Annual Meeting of the American Educational Research Association, New York, April 1996.

- Hattie, J., 1999, *Influences on Student Learning: Inaugural Professorial Lecture*.
University of Auckland, New Zealand.
- Ingule, F., Rono, R., Ndambuki, P., 1996, *Introduction to Educational Psychology*,
EAEP, Nairobi.
- Isaac, S., & Michael, W., 1981, *Handbook in Research and Development for Education
and Behavioral Sciences*, 2nd Ed Edits Publishers, San Diego.
- Katz, L. G., 1997, 'A Development Approach to Assessment of Young Children', *ERIC
Digest*, ERIC Document Reproduction Service No. ED 407172
- Kerlinger, F., 1973, *Foundations of Behavioral Research*, Holt, Rinehard and Winston,
New York.
- Kiminyo, D., Munavi, K. & Wamani, W., 2007 2nd Ed, *General Educational
Psychology*, Educational Research and Publications, Nairobi.
- Kinard, Jerry, 1988, Management, Toronto, D.C., Heath and Company.
- Klausmeier, Herbert j., & Ripple Richard E., 1971, *Learning and Human Abilities:
Educational Psychology* 3rd Ed, Harper & Row Publishers. New York.
- Kothari, C. R., 1990, *Research Methodology: Methods and Techniques*, Wishwa
Prakashan, New Delhi.
- Luksik, Peg, & Hoffeecker, Pamela Hobbs, 1995, *Outcome-Based Education: The State's
Assault on Our Children's Values*. Huntington House Publishers.
- Hills, T. W. (1992). Reaching potentials through appropriate assessment.
In S. Bredekamp & T. Rosegrant (Eds.), *Reaching potentials: Appropriate
curriculum and assessment for young children* (Vol. 1, pp. 43-63). Washington,
DC: National Association for the Education of Young Children.
- Meisels, S. J. (1993), 'Rethinking Classroom Assessment with the Work Sampling
System,' *Young Children*, 48 (5), 34-40.
- Ministry of Education, Science and Technology 2002, *Teacher's Guide for the New
Primary Education Curriculum*, K.I.E., Nairobi.
- Mugenda, O. & Mugenda, A. 1999, *Research Methods: Quantitative & Qualitative
Approaches*, ACTS Press, Nairobi.
- National Association for the Education of Young Children & National Association of
Early Childhood Specialists in State Departments of Education 1990, *Guidelines for
Appropriate Curriculum and Assessment in Programs Servicing Young Children
Ages 3 through 8*, Washington DC.

- Nsubuga, E.H.K. 1987, *Foundations of Education for Educational Institutions*, M.K. Publishers, (U) Ltd., Kampala.
- Nsubuga, E.H.K. 2000, *The Teacher as a Professional*, M.K. Publishers, (U) Ltd., Kampala.
- Orodho, A., 2005, *Techniques of Writing Research Proposals & Reports in Educational and Social Sciences*, Kanezja HP Enterprises, Nairobi.
- Parkay. F. W. & Stanford, B.H., 2004, *Becoming a Teacher*, Pearson Educational, Inc. Boston.
- Piaget, J., 1981, *The Psychology of Intelligence*, Littlefield Adams, New Jersey.
- Quist, D., 2000, *Primary Teaching Methods*, Macmullan Education, Nairobi.
- Sadler, D. R., 1989, 'Formative Assessment and the Design of Instructional,' *Systems Instructional Science*, 18, 119-144.
- School Management Guide, Ministry of Education & Human Resource Development, Jomo Kenyatta Foundation, Nairobi.
- Shepard, L., 1994, 'The Challenge of Assessing Young Children Appropriately', *Phi Delta Kappan*, 76 (3), 206-212.
- Tuckman B. W., 1975, *Measuring Educational Outcomes: Fundamentals of Testing*, Javanovich International Ed., Harcourt Brace.
- Republic of Kenya, 1999, *Total Integrated Quality Education and Training TIQET: Report of the Commission of Inquiry into the Education System of Kenya*, Government Printer, Nairobi.
- Woolfolk, A., 1998, *Educational Psychology*, Allyn and Bacon, Boston.

