UNIVERSITY OF NAIROBI

TEACHERS' PREPAREDNESS FOR THE IMPLEMENTATION OF ALTERNATIVE ASSESSMENT IN PRIMARY SCHOOLS IN KENYA

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M.ED

(MEASUREMENT AND EVALUATION)

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DECLARATION

This research project is my original work and has not been presented for award of degree in any other University.

SIGNATURE…………………………. DATE………………………….

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This research project has been submitted for examination with my approval as University supervisor.

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DEDICATION

I dedicate this study to my wife Norah, my daughters Rose and Irene, and my son Daniel

who encouraged me while pursuing for knowledge and wisdom.

ACKNOWLEDGEMENTS

I appreciate all those who contributed towards the completion of this research project. First, I appreciate the incredible guidance and support offered by my supervisor Dr. Karen Odhiambo. I sincerely thank her for her tireless guidance and encouragement.

I express my gratitude to all my respondents who participated in this study by dedicating their time to share valuable data, which enabled me to accomplish this research.

Finally, I thank God for grace and strength He gave me to pursue this study.

To him be all the glory and honor.

ABSTRACT

The aim of the study was to evaluate teachers' preparedness for the implementation of alternative assessment in primary schools in Kenya in Matungulu Sub County – Machakos. Alternative assessment is also referred to as classroom-based, qualitative, informal, or competency based assessment. Adoption of alternative assessment in Kenya is thought to equip learner with skills to thrive in 21st century. The purpose of the study was to determine teachers' preparedness for the implementation of the alternative assessment at classroom level. The main objectives of the study was to: determine teachers' level of knowledge and skills to effectively implement alternative assessment in primary schools; assesses teachers' application of alternative assessment strategies at classroom level and establish teachers' perceptions for the implementation of alternative assessment at classroom level. The research adopted a survey research design, data was collected using questionnaire and interview guides. A sample size of thirty two head teachers and thirty two class teachers was involved in the study. The study found the following: that the teachers had received in-service training in readiness for implementation of alternative assessment; that the teachers had confidence in application of assessment strategies to a moderate extent and that teachers agreed with the perception areas on alternative assessment to a great extent.

LIST OF TABLES

ABBREVIATIONS AND ACRONYMS

AA --   Alternative assessment

AFL --   Assessment for learning

CAT –   Continuous assessment test

CBC –   Competency-Based Curriculum

CBEF-   Competency-Based Education Framework

IBE-UNESCO-   International Bureau of Education United Nations

KICD-   Kenya Institute of curriculum Development

KNEC-   Kenya National Examinations council

KNUT –   Kenya National Union of Teachers

MOE-   Ministry of Education

SPSS-   Statistical Package for social science

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In recent years, the clamor for measuring meaningfully contextualized abilities and high order mental progressions has grown tremendously, while the 'traditional test' get little attention for not providing a valid measure of learners' ability (Watt, 2005). Further, Watt observed that there was a need to incorporate alternative methods of assessment that are able to, effectively assess the range of learners'capacities. This research is on "Alternative Assessment."

Alternative assessment is also referred to as classroom-based, qualitative, informal, or competency based assessment (Janisch, Liu and Akrofi, 2007). The concept of alternative assessment is not new; it started in 1990s as a worldwide trend when many primary schools in Europe, Asia and U.S.A introduced foreign languages in schools curriculum (Nikolov, 2000). According to Chronic and Cosgrave (2013) alternative assessment deem to be the most appropriate assessment approach because the teacher is able to assess young learners frequently besides helping teachers in organizing teaching and learning instructions that suit learners' needs. On the same note, Cambridge Assessment International Education considers alternative assessment to be an approach, integrated into teaching and learning.

Related to this, in Singapore, demand to give every student equal opportunities to succeed led to adoption of alternative assessment (Christina, L.& Kelvin, T. (2015). Further, traditional test were linked with a lot of pressure to candidate, teachers and parents, and

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yet they could not provide a true measure of student abilities. In connection to this, Anderson (1998) advocates for adoption of alternative assessment for 21st century. He points out that, alternative assessment does not only focus on the learning outcome, but also learning process. According to Steers (2015), from South Africa, the proponent of alternative assessment, stated that, the knowledge children have is determined by their level of resources provided and knowledge of teachers and this can only be achieved through alternative assessment(Steers, M,2015).

Similarly, in Tanzania, the need to review the curriculum that exited was informed by the fact that the existed curriculum was not meeting the requirement of Education and Training (Tanzania Institute of Education, 2013). Moreover, Nangale (2012) points out that adoption of alternative assessment was produce self-reliant graduates and thus was solve problem of unemployment in Tanzania.

In the light of such global trends, Kenya has not been left behind. In January 2017, the Kenyan government launched Basic Education Curriculum Framework (MoE, 2017) and subsequent reaffirmation of the same by the launch of sessional paper no. 1 of 2019. According to (MoE, 2017), the need to change the curriculum was informed by the following reports: "(MoE,2009) report on summative evaluation; The Kenya Vision 2030;The Sessional paper No. 14 of 2012 for the East African Community (EAC);Ministry of education (2012) task force report on re-alignment of the education sector to the constitution of Kenya 2010; MoE (2016) report on the national needs analysis" (MoE, 2016)

It was perceived that, the adoption of alternative assessment in Kenya would equip learners with the required skills for 21st century required for the job market (MoE, 2017). While applauding the Kenyan government for the tremendous effort on curriculum reforms, many concerns have been raised by the stakeholders on teachers' preparedness for the implementation of the new curriculum. Report by Kaviti (2018) on teachers' preparedness for the implementation of competency-based curriculum in pre-primary and lower primary grades in Kenya, indicate the following:

"Teachers were not satisfied with the knowledge and understanding of competency-based curriculum; Head teachers and Teachers perception was negative on major areas of competency-based curriculum implementation; Training on competency-based curriculum was ineffective; Implementation of CBC was affected lack of adequate instructional materials (Kaviti, 2016).

However, cabinet secretary ministry of education confirmed that about two hundred and forty teachers were trained on competency-based curriculum by January 2020 (Daily nation, 3rd January, 2020).

1.2 Statement of the Problem

The competency-based curriculum in Kenya was rolled out in January 2019, starting from preprimary one to grade three (MoE sessional paper no. I of 2019).According to BECF (2017), formative assessment shall to integral part of teaching and learning process at classroom level, while summative assessment shall be conducted at

grade three, six and nine resulting from this new development, teachers across the country were trained on competency based curriculum (CBC) as indicated in KNUT(2019) and Kaviti (2018) reports. However, it is apparent that there is very little stated in these reports regarding the training of teachers for execution of alternative assessment. The study holds that the execution of new curriculum is incomplete without assessment. On the same note, O' Connor, (2009) points out that with the paradigm shift to competency-based curriculum, there is need to align assessment to ongoing emphasis on competencies. Therefore, it is for this reason the study aims to determine whether the primary school teachers for grade three are adequately prepared for the implementation of alternative assessment at classroom level.

1.3 Purpose of the Study

The purpose of the study was to determine teachers' preparedness for the implementation of the alternative assessment at classroom level.

1.4 Objectives of the Study

The study was guided by the following objectives:

i.   To determine teachers' level of knowledge and skills to effectively implement alternative assessment in primary schools.

ii. To assess teachers' application of alternative assessment strategies at classroom level.

iii. To establish teachers' perceptions for the implementation of alternative assessment at classroom level.

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1.5 Research Questions

i. To what extent are the teachers equipped with knowledge and skills to effectively implement alternative assessment for primary schools?

ii. To what extend do teachers apply alternative assessment strategies at classroom level?

iii. What are the teachers' perceptions for the implementation of alternative assessment at classroom level?

1.6 Significance of the Study

The findings of this study will be found useful to different stakeholders in education sector like the teachers, parents, administrators, test developers and the school managers on the importance of teachers' preparedness for the implementation of alternative assessment by making informed decisions on its implementation. The study will generate information, which might positively change teachers' perception for the implementation of alternative assessment. The study findings will be used by Kenya national Examinations Council (KNEC) to organize for more seminars, workshops and teacher in service program me to prepare adequately for the implementation of alternative assessment.

1.7 Justification of the Study

In Kenya there has been a serious debate among educational stakeholders as to whether primary school teachers are adequately prepared for the implementation of CBC where at the heart of which is gist of alternative assessment. Therefore, the study will provide a

baseline information on the recent status of the implementation of alternative assessment in primary schools in Kenya.

1.8 Definition of Terms

Teachers' preparedness: Refers to individual and collective knowledge, skills, attitude, perception and ability to support implementation of alternative assessment.

Mental progression: Refers to gradual acquisition of knowledge and skills based on learning from Known to unknown.

Learner's ability: Refers to leaner's knowledge and skills and what he/she able to do with it.

Alternative assessment: formative or summative assessment of contextualized abilities and high order cognitive processes.

Formative assessment: is part of instruction used to inform both teachers and students about understanding at a point when timely adjustments can be made.

Authentic Assessment: is a term used to describe multiple forms of assessment that reflect learning achievement, motivation and relevant attitudes towards classroom activities, for example: portfolio, self-assessment report.

Competency-based assessment framework: it provides basis for creating sound and suitable assessment systems principles and professional standards of assessment.

Competency-based curriculum: refers to curriculum that encompasses the application of skills as opposed to subject content and rote memorization.

Curriculum: Refers to all that is planned to enable the learner to build up the desired attitude, skills and knowledge.

Implementation: Refers to the process and practices used in the classroom by primary school teachers too effectively execute the competency- based curriculum.

Perception of teachers: Refers to understanding, opinions, feelings, interpretations and views on their preparedness for the implementation of CBC.

Preparedness of teachers: Refers to individual and collective knowledge, skills, attitude, perception and ability of teachers to support implementation of the alternative assessment in primary school.

1.9 Organization of the Study

This study is organized into five chapters. Chapter one is the introduction covering the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, basic assumptions of the study, definition of significant terms and organization of the study.

Chapter two focuses on literature review which contains information about the alternative assessment, teachers' knowledge and skills on alternative assessment, teachers 'application of alternative assessment strategies at classroom level, and teachers' perception on the implementation of alternative assessment.

Chapter three covers methodology which includes the research design, target population, sample size and sampling procedure, research instruments, instrument validity and reliability, data collection procedures and analysis techniques.

Chapter four involves data presentation, interpretation and discussion of the finding. Chapter five comprise of the summary, conclusion, recommendation and suggestions for further research

CHAPTER TWO

LITERATURE REVIEW

2.1Related Studies

This chapter discusses various relevant studies to determine teachers' preparedness for the implantation of alternative assessment at classroom level. The review is organized as per key variables of the study: teachers' knowledge and skills, teachers' application of alternative assessment strategies and teachers' perception at classroom level. Summary of literature review, theoretical framework and conceptual framework are discussed here.

2.1.1 Studies on alternative assessment and teachers' preparedness

A study carried out by Albert. P, K (2015) of Tanzania. The study looked at alternative assessment and teachers' preparedness. Among the objectives addresses in his study was teachers' knowledge and skills for the implementation of alternative assessment in chemistry subject. The outcomes of the study indicated that chemistry teachers had insufficient knowledge and skills in implementing alternative assessment.

Another study was carried out by, Waweru, J.W (2018) of Kenya. The aim of the study was to examine the influence of teachers' preparedness for the implementation of alternative assessment in primary schools in Nyandarua North Sub County. Among the study objectives addressed was the teachers' application of alternative assessment strategies at classroom level. The finding of the study revealed that teachers were not confident in the use of alternative assessment strategies at classroom level, and in most cases traditional test were used in a CBC classroom instructions.

Yet, Christina and Kelvin (2015) in Singapore carried another study. The aim of the study was to establish challenges associated with introduction of formative assessment in Singapore. Among the study objectives questions sought to be answered was teachers' perception for the implementation of formative assessment at classroom level. The study findings established that, the introduction of formative assessment was not getting enough support from educational leaders.

Study-1 Teachers' Knowledge and Skills for the Implementation of Alternative Assessment at Classroom Level

Measuring pupil's learning progress is one of the most important skills for a professional teacher. In this regard, Stiggins (1999) points out that, a teacher spends a half of instructional program me assessing her/his learners. Therefore, policy makers and educators should see the need for teachers' training in assessment skills. Despite the new trend on adoption of alternative assessment, Metin (2011) observed that the trend was not getting the required support from classroom teachers, simply because teachers were not adequately trained for execution of alternative assessment but, instead they strangle to execute it. Further, it was pointed out that, a valid assessment could only be achieved by use of teachers who are competent in alternative assessment skills.

Study by Yu-ching, (2008) observed that lack of training in alternative assessment has forced teachers to use traditional methods of assessment. On the same note, Mertler (2003) noted that training session for aligning teachers with the paradigm were inadequate. Cambridge Assessment International Education, points out that there is need for learners

and educators make use of feedback from alternative assessment to improve teaching and learning processes. This can only be achieved through a thorough training of teachers in alternative assessment skills. Related to this, the Journal Humanities (April, 2006), stated that, 21st century curriculum requires teachers who are not only professional in teaching but also professional in testing. The study holds that, the training of teachers on alternative assessment is very critical without which the envisaged outcomes of the new curriculum cannot be realized.

Study -2 Application of Alternative Assessment Strategies at Classroom Level.

Assessment refers to a process of inquiry that integrates multiple sources of evidence, whether test-based or not, to support an interpretation, decision, or action (Moss, Girard, & Haniford, 2006, p. 152). Alternative assessments requires the teacher to assess students frequently using authentic assessment methods such as portfolios, classroom or field observation, projects, oral presentations, self-assessment, interviews and peer- assessment (Kitta &Tilya, 2010). Similarly, BECF (2017) outlined the following as tools for assessment CBE: checklist; rating sale; questionnaire; project methods; portfolio; journaling; and record of personal feeling. Further, CBC places emphasis on Continuous Assessment Tests (CATs) over one-off examinations.

O' Connor, (2009) points out that with the paradigm shift to competency-based curriculum, there is need to align assessment to ongoing emphasis on competencies. In this regard, it is expected that Kenyan teachers will be using these assessment strategies in the course of

classroom instruction.This is to ensure that the skills taught in Kenyan educational institutions match the requirements of the industry, and with emphasies on national values, integration of science and innovation and adoption of ICT technologies (sessional paper No. 1 of 2019).

Study - 3 Teachers Perception on the Implementation of Alternative Assessments at Classroom Level.

"Teachers' beliefs and attitudes about assessment affect their classroom assessment practice","for teachers to implement assessment successfully; their positive attitudes towards assessment should be acknowledged and invested"(Brown, 2009).Ogan-Bekiroglue (2009) seem to concur with this, he points out that, teachers' perception towards educational assessment should be considered when introducing reforms in the educational systems.On the same note, Popham (2009) adds that, "if teachers lack the knowledge and positive attitudes towards assessment, it will affect the quality of assessment outcomes"(Popham, 2009). In this regard, Mary, J (2006) notes that helping teachers to become more effective mean both change in their assessment practice and change in their beliefs about learning. Similarly, in the Kenyan context teachers' attitude can be changed through in-service training, seminars, workshop and alignment of teacher training curriculum for pre-service teacher students.

2.1.5 Summary of Related Studies

Review of related literature has been done on teachers' level of knowledge and skills for implementation of alternative assessment, application of alternative assessment strategies at classroom level and teachers' perception on the implementation of alternative assessment.

- The study by Metin (2011) observed that adoption of CBC was not supported by many teachers due to lack of Knowledge and skills. In the light of this, the Journal Humanities (April, 2006), stated that, 21st century curriculum requires teachers who are not only professional in teaching but also professional in testing.

- Kitta and Tilya (2010) points out that the need to frequent assess the learners using the appropriate assessment methods failure to which result to invalid measure of learner's progress.

- Teachers' beliefs and attitudes affect their classroom practices (Brown, 2009). Ogany, B. (2009) seems to concur with this, he stated that teachers' perception towards alternative assessment should be considered when introducing educational transformations.

2.2 Related Literature

2.2.1 The Concept of Alternative Assessment

Alternative assessment is also referred to as classroom-based, qualitative, informal, or competency based assessment (Janisch, Liu and Akrofi, 2007). On the same note, according to Gronlund (1998), alternative assessment refers to assessment methods that provide an alternative to the traditional paper and pencil tests. Puhl (1997) states that alternative assessments allow students to demonstrate

their understanding and personal meaning of what they have learnt in classroom. Whereas, Suzieleez Syrene Abdul and Tajularipin Sulaiman (2006) states that alternative assessment techniques encourages higher order creative and critical thinking where learner has more control of his/her learning. In this regard, Nurfaradila Nasri et al. (2010), outlined the rationale behind alternative assessment as follows:

> "Learners do not learn in the same way, and therefore they cannot be assessed only in a uniform manner (Brualdi, 1996), Traditional assessment (paper and pencil tests) only examine students' knowledge (Rudman,1989), alternative assessment can emphasize on real-life skills such as problem solving skills and decision making skills to prepare learners for the work force in the real world (Brualdi,1996), alternative assessment allows teachers to monitor the effectiveness of their lessons on learners understanding and modify the mode of instruction whenever necessary (Wiggins,1990)," (Nurfaradila Nasri et al. 2010).

There are two kinds of alternative assessment: formative (Authentic assessment) and summative (traditional test) (O'Leary, 2006; Yang, 2007). Further, Harlen and James (1997) made distinction that summative assessment is for the total learning achievements of learners and formative assessment is on-going activities to advance the learners' learning abilities. Though, the assessment information in both the cases have tuneful connection and complement each other (Black & Wiliam, 1998), a good summative continuous assessment would indicate student's grading that commonly denote as 'assessment of learning', on the other side good

formative assessment support the judgment of teachers to progress the learners' attainment levels in self-learning (Vaden-Goad, 2009).

The shift from Knowledge based curriculum to competency-based curriculum has led to adoption of alternative assessment in Kenya (BECF, 2017). Traditional assessments (paper and pencil) are not able to give a valid measure of learner's abilities (Watt, 2005) and because of this, the current perspective on assessment advocates for alternative assessment, which provide a variety of measures on student's abilities. Related to this, Christina, L., & Kelvin, T. (2015) points out that, the need to give every student equal opportunity to succeed was being embraced worldwide. While on the other hand, BECF (2017) cites the need to equip learners with 21st century skills required for job market.

2.2.2 History of Alternative Assessment

The concept of alternative assessment is not new, it originated alongside the introduction of competence-based teacher education curriculum in the United States in the 1970s (Schilling&Koetting,2010;Mulder,2004;Fletcher,2000). This was because of dissatisfaction with programmes in the postsecondary education because many colleges and universities offered programmes that had no clear objectives with respect to the required job market skills (Mulder,2004).

Elsewhere, alternative assessment started in 1990s as a worldwide trend when many primary schools in Europe, Asia and U.S.A introduced foreign languages in schools curriculum (Nikolov, 2000). According to Chronic and Cosgrave (2013) alternative assessment deem to be the most appropriate because the teacher is able to assess young

learners frequently besides helping teachers in organizing teaching and learning instructions that suit learners' needs.

Contemporary theories of learning emanate from the work of B.F Skinner, Jean Piaget and more importantly Lev Vygotsky (1920s and 1930s). Lev Vygotsky was commonly thought to be the father of social cultural thinking. He was interested in exploring how higher order mental processes developed (Liem,A.D., Waker, R.A & Mclnery, D.M. 2011). Similarly, the researcher opine that , since alternative assessment's main focus is to develop high order thinking, it is on the same learning theories on which alternative assessment is premised.

2.2.3 Theories of Learning and Principles of Assessment

The contemporary theories of learning emanate from the work of B.F Skinner, Jean Piaget and more importantly Lev Vygotsky (Mary, J. 2006). Lev Vygotsky was commonly thought to be the father of social cultural thinking and he was interested in exploring how higher order mental processes developed (Liem,A.D., Waker,R.A & Mclnery,D.M. 2011). Further, the study indicates that, Vygotsky's exploration had to engage the three aforementioned theories of learning for high order mental process. Similarly, the researcher opine that , since alternative assessment's main focus is to develop high order thinking, it is on the same learning theories on which alternative assessment is premised.

The paradigm shift on assessment is from traditional testing to authentic assessment, and thus the shift on learning theories from behaviorist to socio cultural and cognitive constructivist. The current perspective on assessment and principles for assessment has

informed the paradigm shift on assessment (Assessment and Reporting Unit Learning Policies Branch Office of Learning and Teaching, 2005).

2.3 Theoretical Perspective of the Study

2.3.1 Theories of Learning

The shift from rote learning to active learning has led to adoption of alternative assessment (Watt, 2005). Further, it was observed that traditional tests on rote learning could not give a valid measure of students ability as opposed to alternative assessment which gives a valid measure on what learner know and able to demonstrate. The fundamental bases of alternative assessments are anchored on human learning and human memory (Ausubel, 1960). Ausubel, (1960) the proponents of alternative assessment believed that understanding concepts, principles, and ideas are achieved through deductive reasoning. Further, he believed the idea of meaningful learning as opposes to rote learning. Such ideas account to why educational curricula across the globe are shifting to meaningful learning. In relation to such global trend, Kenya adopted the competency-based curriculum (MoE, 2019) and thus prompting to adoption of alternative assessment so as to produce graduates who are equipped with 21st century skills.

Alternative assessment is justified by the fact that,active learning, the learner goes through process of knowledge construction, knowledge recording and knowledge absorption and therefore knowledge based testing cannot be apply in such a context (Mary, 2006).On the same note, studies have shown that immediate results (one off test) in construction of knowledge class (CBC) is not possible.

2.3.2 Theories of Learning Guiding the Study and Their Implication on Assessment

Learning is based on three main theories:

(a) Behaviorist

(b) Socio cultural

(c) Cognitive constructivist.

2.3.2.1 Behaviorist Theory

According to Mary (2006), Pavlov, James Watson, B.F Skinner and Thorndike developed behaviorist theories in 1930s. She observed that, the determining factor of these theories was the learning environment. "The external stimuli is the conditional response of learning" (Mar, J.2006). Rewards and punishments are powerful ways of forming or extinguishing habits. On the same note, Bush (2006.p.14) points out that behaviorist believed that only observable, measurable, outward behavior is worthy scientific inquiry, and thus focus on learning affected by changes in behavior.

Behaviorist is opposed to current perspective on assessment, which advocates on variety of measures on learners abilities (Assessment and Reporting Unit Learning Policies Branch Office of Learning and Teaching, 2005). This gives the reasons why traditional assessment were not able to give a valid measure of learner's abilities. This study holds that, the implication of this theory on assessment is that, learner's progress is measured through observable means, and performance is usually interpreted as either correct or incorrect.

2.3.2.2 Socio cultural

According to Mary (2006) socio-cultural perspective on learning is often regarded as a new development in education. However, Bredo (1997) traces its intellectual origins back to the conjunction of functional psychology and philosophical pragmatism in the work of William James, John Dewey and George Herbert at the beginning of the twentieth century. According to this perspective, children construct knowledge through social interaction with other and with skilled individuals (Lev Vygotsky, 1886-1934). Social cultural class offers an opportunity for active participation and acceptance of individual differences. In addition, it promotes assisted discovery (Hilgaid, E. 1964).

Assisted discovery is also fostered by peer collaboration when children with different abilities work in groups, teaching and assisting each other (BECF, 2017). On the same note, learning involves participation and what is learned is not necessarily the property of an individual but shared within the social group, hence the concept of 'distributed cognition' in which collective knowledge of the group, community or organization is regardaed as greater than the sum of the knowledge of individuals (Salomon, 1993). The study holds that, the implication of this theory on assessment is that, there is no competition among the learners in this form of assessment, collaboration and pursuant on individual goals are the focus.

2.3.2.3 Cognitive constructivist.

Cognitive, constructivist theories of learning were derived from a mix of intellectual traditions including positivism, rationalism and humanism and, as with behaviorist theories and socio-cultural this family includes theorists from both

America and Europe (Mary, J, 2006). Learning under these theories requires learners construct knowledge by transforming, organizing, and reorganizing previous knowledge, in addition, constructivist class is that learners need support to explore their world and discover knowledge (Jean Piaget 1896-1980).

This study is guided by constructivism, simply because the contemporary perspective on the shift from traditional assessment to alternative assessment, it is apparent that theories behind educational assessment are now shifting from behaviorist to constructivist. In the same note, (Estrin, 1993) observed that alternative assessment is well-suited with constructivist theory, which view learners as active constructors of knowledge.

2.4 Conceptual Framework

It is important to note that, the vision for the basic educational curriculum reforms in Kenya is to enable every Kenyan to become engaged, empowered and ethical citizen (BECF, 2017 p.10). This cannot be achieved without assessment, since it is the only mechanism that measures the envisaged learning outcomes in (BECF, 2017). Following the global trends on the shift from traditional to alternative assessment, the study hold that, the current perspective on education requires teachers who are not only professional teachers but also experts in assessment. This is by the fact that assessment is the integral part of teaching in 21st century curricula.

This conceptual framework depicts how dependent variable (alternative assessment) interacts with independent variables that are: Teachers' level of knowledge and skills on alternative assessment, application of alternative assessment strategies at classroom level

and teachers' perception on alternative assessment with aim of producing an autonomous

learner equipped with 21st century skills.

Figure 2.1: Conceptual frameworks for the study

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┌──────────────────────────────┐                                                    ┌──────────────────────────────┐
│ Teachers' knowledge and      │              ┌──────────────────────┐              │                              │
│ skills for the implementation│──────────┐   │                      │              │ (Autonomous learner          │
│ of alternative assessment    │          └──▶│ Alternative          │              │                              │
└──────────────────────────────┘              │                      │              │ with 21st century            │
                                              │ assessment and       │──────────────▶                              │
┌──────────────────────────────┐              │                      │              │ skills)                      │
│ Teachers' application of     │          ┌──▶│ Teachers             │              │                              │
│ alternative assessment       │──────────┘   │                      │              └──────────────────────────────┘
│ strategies at classroom level│              │ 'preparedness        │
└──────────────────────────────┘              │                      │
                                              │                      │
┌──────────────────────────────┐          ┌──▶                      │
│ Teachers 'perception for the │──────────┘   └──────────────────────┘
│ implementation of alternative│
│ assessment at classroom level│
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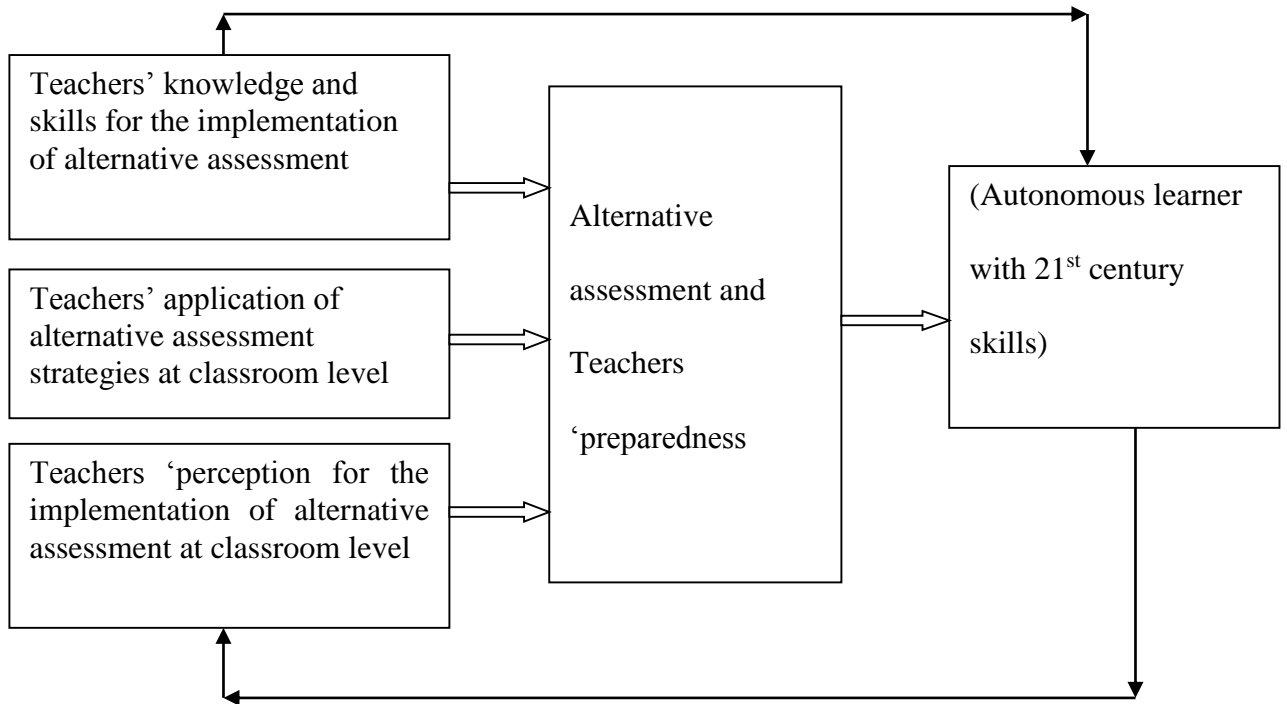
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter covers research design, population of the study, sampling procedures, research instruments, data collection procedures, data analysis and ethical considerations.

3.2 Research Design

The research adopted a survey research design. This is because survey design is reliable and the design seeks to determine present practices of a specified population (Orodho, 2005). It provides a clear understanding of the situation under investigation by collecting facts and figures rather than manipulation of variables (Orodho, 2005). The researcher sought authority from the school's administration so as to administer questionnaires and interviews.

3.3 Study Site

The study was conducted at Matungulu sub-county in Machakos County.

3.4 Target Population

A target population sums up the total number of individuals to whom the research resultsare generalized (Mugenda, &Mugeda 2003). In the light of this, Matungulu Sub County has 109 primary schools, and therefore the target population will be 109 head teachers and 109 classroom teachers from grade three classes in Matungulu Sub County. The reason for selecting grade three class teachers is because the CBC was rolled out from preprimary to grade four (MoE, 1of 2019).Further, in connection with this

Frankel &Willen (2006) explained that the researcher is more confident in generalizing if the target population is homogeneous.

3.5 Sample Size and Sampling Procedure

a) The sample procedure

Sampling procedure employed the use of Microsoft Excel random sampling, whereby the schools were sorted using numerical codes in ascending order. There after a criteria was applied to select the sample without biasness, for example, a loop of digit one to three was assigned against each school name. Criteria was then applied such that any school matching digit three was selected into a sample without bias. The research used a sample size 30% of the population in each category. This was because the target population was above thirty.

b) The sample size

Sampling is the process of selecting a representative of the entire population such that the selected group contains elements representative of the characteristics found in the entire group. According to (Mugenda &Mugenda, 2003) a sample size of 10% - 30% of the target population is sufficient to make a generalization. The sample size of primary school head teachers was thirty-two based on the population. It was assumed each primary school was having one head teacher. While on the other hand a sample size of thirty two was selected from one hundred and nine schools. It was assumed that each primary school's grade was having one teacher, and thus adding up to a total of one teachers per school. The sample size and sampling procedures were employed as provided in table 3.

Table 3.5.1: Sample size for the study

Respondents	Target Population	Percent	Sample Size
Head Teacher	109	30%	32
Teachers	109	30%	32

3.6 Data collection Instrument

Data was collected using questionnaire and interview guides. The aim was to capture data that represents teachers' level of knowledge and skills for the implementation alternative assessment, application of alternative assessment strategies at classroom level and teachers' perception on alternative assessment.

3.6.1 Questionnaire

The questionnaire consisted of four parts:

a) Part one of the questionnaire-concerned information on demographic information of the respondents and it consists of five questions. Responses were obtained from the options given.

b) Part two of the questionnaire-concerned information on teachers' level of knowledge and skills for the implementation of alternative assessment. This part consists of twenty questions only. Responses was obtained on a four points Likert scale ranging from Not at all skilled to highly skilled.

c) Part three of the questionnaire-concerned information on teachers' application of alternative strategies at classroom level. This part consist of ten questions. Responses

were obtained on a four points Likert scale ranging from not confident to highly confident.

d) Part four of the questionnaire was information about teachers' perception on the implementation of alternative strategies at classroom level. This part consist of ten questions. Responses was obtained on a five points Likert scale ranging from strongly agree to strongly disagree.

3.6.1.1 An interview schedule

The interview schedule conducted to collect data from head teachers. The interview deemed to be reliable because the head teachers had more information about teachers' understanding on alternative assessment and thus assisted in acquiring more data. The interview guide consisted of seven questions derived from study objectives. The interviewer recorded interviewee respondent during face-to-face interview.

The table below shows objective and its relevant instrument, author of the instrument and statistical analysis for each information.

Table 3.6.1.1.1: Instrument Source and Statistical Analysis

Objective No.	Information	Instrument and Author	Statistical Analysis.
1	To determine teachers' level of knowledge and skills to effectively implement alternative assessment in primary schools in Matungulu sub-county, Machakos County.	Iqbal, A. and Manarvi, I A.(2011) Teachers' attitudes and perceptions for alternative assessment Techniques: a case study of Pakistani Universities.	Quantitative analysis
3	To assess teachers' usage of alternative assessment strategies at classroom level from preprimary one to grade three in Matungulu Sub county.		Quantitative analysis
4	To establish teachers' perceptions on the implementation of alternative assessment at classroom level in Matungulu Subcounty.		Quantitative analysis
1-3	Teachers' knowledge and skills in alternative assessment, Application of alternative assessment strategies and teachers, perception on alternative assessment.	Interview guide Author: Iqbal, A. and Manarvi, I A.(2011)	Qualitative analysis

3.6.2 Reliability of the Instruments

Reliability refers to the extent to which an instrument can measure a variable precisely and consistently to obtain the same results under the same condition overtime (Mugenda &Mugenda, 2003). In this regard, the study sought permission to adopt research instruments from published study (see attached).Acronbach

alpha reliability coefficient of 0.932 was reported for this instruments(Iqbal, A. &Manarvi ,I, A. 2011).The study holds that, this indicate a high level of reliability and therefore the instrument was reliable for use.

3.7 Validity of Instruments

Validity refers to the precision and meaningfulness of inferences which are based on research results (Mugenda and Mugenda, 2003). Validity determines whether the researcher measures what is supposed to measure. This study has sought permission to adopt research instruments from published studies (see attached).

3.8 Data Collection Procedure

The researcher obtained an introductory letter from the University of Nairobi.The researcher then obtain a research permit from the National Commission for Science, Technology and innovation. The researcher presented copies of the research permit to the Sub county – commissioner, county directors of education and sub-county education officers in order to obtain the required authority to proceed with the study. The researcher then booked appointment with the head teachers to administer the questionnaire, and conduct interviews.Due to the 2020 Covid-19 pandemic, administration of the questionnaires was conducted door to door in teachers' homes. The respondents were assured of the confidentiality and the need for honest response. There after questionnaires were distributed for filling. The interviews were conducted face to face, while the interviewer was taking notes based on the responses. The questionnaires and interview guide were then be collected and analyzed.

3.10 Data Analysis Technique

Data analysis started with data cleaning at the end of data collection. This involved the identification of incomplete or in accurate responses, which were rectified in order to improve the quality of the responses. The findings were analyzed both quantitatively and qualitatively with help of SPSS software program me. Quantitative data was analyzed in terms of frequencies, percentage and mean. On the other hand, qualitative data was coded and presented using tables.

3.11 Ethical Considerations

The study observed ethical consideration especially during data collection. Individual respondents were assured of their anonymity and confidentiality treatment of their responses (Vayana, 2006). It was clear to them that, information the researcher was seeking was purely for academic purposes and that their participation was voluntary and any decision to withdraw information was respected.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

The chapter outlines the study findings presented using tables followed by discussions, the finding are arranged in order of objectives as outlined from chapter one. This was however presided by background information of the respondents. Descriptive statistics and inferential statistics were used to analyze the data. The presentation flows chronologically reflecting the structure of questions as presented in the questionnaire.

4.2 Response Rate

Thirty two (32) questionnaires were distributed to the respective teachers and thirty two (32) interview guides to the respective head teachers in Matungulu Sub County primary schools. Out of questionnaires distributed, 30 questionnaires and 20 interview guides were duly filled and returned which represented a response rate of 94% teachers and 63%headteachers.

Therefore the instruments were regarded as responsive and formed the basis for data analysis. A 50% response rate is considered adequate, 60% is considered good while a response rate that is above 70% is considered excellent for analysis and reporting according to Mugenda and Mugenda (2008). The procedures that the researcher used attributed to the high response rate, as he made efforts to notify the respondents using the questionnaires which he administered on his own and kept reminding them to fill in and later picked them.

Table 4.2.1: Response Rate

Response Rate	Head Teachers		Teachers	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Responded	20	63	30	94
Not Responded	10	37	2	6
Total	**32**	**100**	**32**	**100**

Source: (Survey Data, 2020)

4.3 Demographic Information

This section sought to establish information on the respondents' background. Specifically, the researcher focused on gender, age and highest academic qualification.

4.3.1 Gender of Respondents

There was a 57% distribution of female respondents and a 43% distribution of the male respondents as shown by Table 4.2. Gender biasness was not characterized by the findings as gender was distributed fairly according to the results. This showed that the schools applied the two-thirds gender rule.

Table 4.3.1.1: Gender of Respondents

	Frequency	**Percent**
Male	13	43.3
Female	17	56.7
Total	**30**	**100.0**

Source: (Survey Data, 2020)

4.3.2 Age of Respondents

Table 4.3 shows that most of the respondents (37%) belonged in the 30 to 49 years bracket, closely followed by 20% who were between 20 to 29 years. 7% of the respondents

reported they were above 50 years. Maturity was recorded in the manner in which the respondents responded to the questionnaires according to their age brackets.

Table 4.1.2.1: Age of Respondents

	Frequency	Percent
20-29	6	20.0
30-39	11	36.7
40-49	11	36.7
50 and above	2	6.7
Total	**30**	**100.0**

Source: (Survey Data, 2020)

4.3.3 Respondents Highest Academic Qualification

Participants were required to indicate their highest level of education as education gives people a set of key, transferable skills such as an ability to work and communicate, effective oral and written communication, information and communication technology waviness, research and analytical skills, problem-solving skills, teamwork ability, self-management thus is effective for the study to ensure that the participants were literate, understood the subject under study and were able to provide reliable and relevant data (MacDermids, 2011).

Table 4.4 shows that 43% of the respondents who were the majority had a certificate, 30% had a degree and 27% had a diploma.

Table 4.3.3.1: Respondents Highest Academic Qualification

	Frequency	Percent
Certificates	13	43.3
Diploma	8	26.7
Degree	9	30.0
Total	**30**	**100.0**

Source: (Survey Data, 2020)

4.3.4 Grade

The researcher sought to find out the grades that the teachers taught. The data received was categorised as shown in the table 4.5.

The results indicated that most of the teachers (50%), taught in grade four, 20% taught in grade two, 17% taught in grade three while 13% taught in grade one.

Table 4.3.4.1: Grade

	Frequency	Percent
One	4	13.3
Two	6	20.0
Three	5	16.7
Four	15	50.0
Total	**30**	**100.0**

Source: (Survey Data, 2020)

4.3.5 Years in Teaching Profession

The results reveal that majority of the participants (50%) had been in the teaching profession for more than 10 years, 30% had been in the teaching profession for a period between 5 to 10 years while 20% had been in the teaching profession for a period between 1 to 5 years. These results provided evidence that the participants had been in the teaching profession long enough and thus were well informed on teachers' preparedness for the implementation of alternative assessment.

Table 4.3.5.1: Years in Teaching Profession

	Frequency	Percent
1 to 5 years	6	20.0
5 to 10 years	9	30.0
more than 10 years	15	50.0
Total	**30**	**100.0**

Source: (Survey Data, 2020)

4.4 Teachers' Level of Knowledge and Skills in Alternative Assessment

In this section, the respondents were requested to indicate their level of knowledge and skills to effectively implement alternative assessment in primary schools.

4.4.1 In-Service Training

As per Table 4.7, 93% of the teachers indicated that they had received in-service training in readiness for implementation of competency-based curriculum. The head teachers also indicated that they had attended in-service training with regard to competency-based curriculum CBC.

Table 4.4.1.1: In-Service Training

	Frequency	Percent
Yes	28	93.3
No	2	6.7
Total	**30**	**100.0**

Source: (Survey Data, 2020)

4.4.2 Service Training Sessions

According to the findings, 33% of the teachers had undergone one in service training sessions for competency-based curriculum, 30% had undergone two in service training sessions for competency-based curriculum, 23% had undergone three in service training sessions for competency-based curriculum whereas 7% had undergone no in service training sessions for competency-based curriculum.

Table 4.4.2.1: Service Training Sessions

	Frequency	Percent
One	10	33.3
Two	9	30.0
Three	7	23.3
5 and more times	2	6.7
None	2	6.7
Total	**30**	**100.0**

Source: (Survey Data, 2020)

4.4.3 Extent Teachers Have Knowledge and Skills in Alternative Assessment

The research aimed at establishing the extent to which the teachers had knowledge and skills in alternative assessment.

Table 4.4.3.1: Extent Teachers Have Knowledge and Skills in Alternative Assessment

	Mean	Std. Deviation
I know how to use portfolios to assess pupil performance.	2.56	.678
I guide pupils to collect materials for portfolio assessment.	3.00	.742
I use classroom observation to assess pupils during activities.	2.93	.639
I know how to design classroom-based tests.	3.00	.694
I can assess pupil performance during role-plays.	2.86	.776
In addition to grades, I can give pupils written descriptions on their report cards	2.90	.661
I know how to assess pupils through oral questioning.	3.40	.621
I have enough skill to implement alternative assessment.	2.73	.784
I use the results of alternative assessment to make useful decisions for pupils.	2.80	.761
I read research about the latest methods in alternative assessment.	2.50	.776
I feel very confident when I use alternative assessment.	2.56	.773
I know how to assess pupils by using group & pair work.	2.90	.547
I use classroom-based tests in addition to alternative assessment.	3.03	.556
I can choose the kind of alternative assessment that suits the skill being assessed.	2.83	.592
I feel confident using traditional written tests.	2.53	.776
I don't need a training course in alternative assessment because I'm qualified	2.13	.899
Alternative assessment assesses pupils through multiple tests	2.60	.770
I prefer using traditional written tests to alternative assessment.	2.26	.907
Total	**49.52**	**12.952**
Average	**2.75**	**0.719**

Source: (Survey Data, 2020).Note: frequencies are indicated in the appendix VI attached.

The average score of 2.75 shows that the teachers were partially skilled on knowledge and skills in alternative assessment to a moderate extent as showed by a mean score of 2.75 in that; the teachers knew how to assess pupils through oral questioning (mean=3.40), the teachers used classroom-based tests in addition to alternative assessment (mean=3.03), the

teacher's guided pupils to collect materials for portfolio assessment (mean=3.00), the teachers knew how to design classroom-based tests (mean=3.00), the teachers used classroom observation to assess pupils during activities (mean=2.93), in addition to grades, the teachers gave pupils written descriptions on their report cards (mean=2.90).

The teachers knew how to assess pupils by using group & pair work (mean=2.90), the teachers assessed pupil performance during role-plays (mean=2.86), the teachers chose the kind of alternative assessment that suited the skill being assessed (mean=2.83), the teachers used the results of alternative assessment to make useful decisions for pupils (mean=2.80), the teachers had enough skill to implement alternative assessment (mean=2.73), alternative assessment assessed pupils through multiple tests (mean=2.60), the teachers knew how to use portfolios to assess pupil performance (mean=2.56), the teachers felt very confident when they used alternative assessment (mean=2.56), the teachers felt confident using traditional written tests (mean=2.53), the teachers read research about the latest methods in alternative assessment (mean=2.50), the teachers preferred using traditional written tests to alternative assessment (mean=2.26) and the teachers didn't need a training course in alternative assessment because they were qualified to a low extent as shown by a mean score of 2.13.

The head teachers also indicated that not all their teachers were competent in CBC, other head teachers indicated that their teachers were not well skilled in all subjects in CBC while the rest of the head teachers indicated that most of their teachers were skilled only in Music subjects.

4.5 Teachers' Application of Alternative Assessment Strategies at Classroom Level

Table 4.10 shows that the teachers had confidence in application of assessment strategies to a moderate extent as shown by an average score of 2.64 in that; they had confidence in oral presentation (Mean=3.03), practical tasks (Mean=2.90), written essay/report (Mean=2.80), record of personal feeling (Mean=2.70), checklist (Mean=2.63), questionnaire (Mean=2.56), portfolios (Mean=2.50), rating scales and rubrics (Mean=2.46) and journaling (Mean=2.36)

The head teachers also indicated that the core competencies they found difficult to infuse during classroom instructions were in music subjects and Digital literacy while others indicated that they did not have any difficulty in core competencies to infuse during classroom instruction.

The head teachers also indicated that their teachers were able to design assessment rubrics to a great extent while others indicated that their teachers were able to design assessment rubrics to an average extent.

Table 4.5.1: Teachers' Application of Alternative Assessment Strategies

	Mean	Std. Deviation
Portfolios	2.50	.629
Rating scales and rubrics	2.46	.628
Checklist	2.63	.668
Oral presentation	3.03	.614
Project work	2.53	.628
Practical task	2.90	.661
Written essay/report	2.80	.761
Questionnaire	2.56	.727
Journaling	2.36	.808
Record of personal feeling	2.70	.794
Total	**26.47**	**6.918**
Average	**2.64**	**0.691**

Source: (Survey Data, 2020).Note: frequencies are indicated in the appendix VI attached

4.6 Regression Analysis

A multiple regression analysis was performed in order to analyze the effect of the predictor variables (namely, teachers' knowledge and skills on alternative assessment implementation; teachers' application of alternative assessment strategies at classroom level and teachers' perception on implementation of alternative assessment at classroom level) on the dependent variable (implementation of alternative assessment at classroom level). The results were as summarized below;

Table 4.7.1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.810[a]	.656	.617	1.3090

Predictors: (Constant), Teachers' knowledge and skills on alternative assessment implementation, Teachers' application of alternative assessment strategies at classroom level and Teachers' perception on implementation of alternative assessment at classroom level

According to Table 4.12 above, R square is the coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variables. The results in Table 4.12 above indicate that the value of R square was 0.656 which means that 65.6% variation in the outcome/dependent variable (implementation of alternative assessment at classroom level) wasdue to variations in the study's three independent variables (which were, teachers' knowledge and skills on alternative assessment

implementation; teachers' application of alternative assessment strategies at classroom level and teachers' perception on implementation of alternative assessment at classroom level). Hence, 34.4% of variation in the outcome variable was explained by other factors not in the model or not focused on in the current study.

Table 4.7.2: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	91.606	3	30.53533	16.55	.0000[a]
1	Residual	47.978	26	1.84531		
	Total	139.584	29			

a. Predictors: (Constant), Teachers' knowledge and skills on alternative assessment implementation, Teachers' application of alternative assessment strategies at classroom level and Teachers' perception on implementation of alternative assessment at classroom level

b. Dependent Variable: Alternative assessment implementation at classroom level

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a regression model and forms a basis for tests of significance of the overall model. The "F" column provides a statistic for testing the hypothesis that all $\beta \neq 0$ against the null hypothesis that $\beta = 0$ (Weisberg, 2005). From the findings in Table 4.13 above, the significance value of .0000 was less than 0.05 and this implied that the regression model was statistically significant in predicting how the teachers' knowledge and skills on alternative assessment implementation, the teachers' application of alternative assessment strategies at classroom level as well as the teachers' perception on implementation of alternative assessment at classroom level affected implementation of

alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County. Further, the F critical value at 5% level of significance was 2.98. Since the F calculated value of 16.55 was greater than the F critical value (2.98), this further affirmed that the overall model was fit.

Consequently, the findings on the regression model coefficients were as shown in Table 4.7.3 below;

Table 4.7.3: Regression coefficients results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.406	.705		4.831	.000
Teachers' knowledge and skills on alternative assessment implementation [X_1]	0.727	.181	.667	4.017	.000
Teachers' application of alternative assessment strategies at classroom level [X_2]	0.709	.195	.623	3.636	.001
Teachers' perception on implementation of alternative assessment at classroom level [X_3]	0.641	.252	.579	2.544	.017

Based on the regression results shown on Table 4.14, the regression model became;

$$Y = 3.406 + 0.727\ X_1 + 0.709\ X_2 + 0.641\ X_3 + \varepsilon$$

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From the regression equation above, taking all the predictor variables (teachers' knowledge and skills on alternative assessment implementation, teachers' application of alternative assessment strategies at classroom level and teachers' perception on implementation of alternative assessment at classroom level) constant at zero, implementation of alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County would be 3.406. The results in Table 4.14 further indicate that there was a strong positive and significant association between teachers' knowledge and skills on alternative assessment implementation and implementation of alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County with a unit increase in teachers' knowledge and skills on alternative assessment implementation leading to a 0.727 increase in implementation of alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County. Similarly, there was a strong positive and significant association between teachers' application of alternative assessment strategies at classroom level and implementation of alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County with a unit increase in teachers' application of alternative assessment strategies at classroom level leading to a 0.709 increase in implementation of alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County. The results also indicate that there was a strong positive and significant association between teachers' perception on implementation of alternative assessment at classroom level and implementation of alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County with a unit increase in teachers' perception on implementation of alternative assessment at classroom level leading to a 0.641 increase in implementation of

alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County. All the predictor variables had their p values < 0.05. The results implied that implementation of alternative assessment at classroom level in primary schools in Matungulu sub-county of Machakos County was positively and significantly influenced by teachers' knowledge and skills on alternative assessment implementation, teachers' application of alternative assessment strategies at classroom level as well as teachers' perception on implementation of alternative assessment at classroom level.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the study summary, conclusions and recommendations based on the study findings. The objectives of this study were to determine teachers' level of knowledge and skills to effectively implement alternative assessment in primary schools, to assess teachers' application of alternative assessment strategies at classroom level and to establish teachers' perceptions for the implementation of alternative assessment at classroom level.

5.2 Summary of Findings

This section presents the summary of finding presented in the previous chapter. This section is organized into three sections that are in sequential with the objectives of this assessment.

5.2.1 Teachers' Level of Knowledge and Skills in Alternative Assessment

The study found that the teachers had received in-service training in readiness for implementation of competency-based curriculum. The head teachers also indicated that they had attended in-service training with regard to competency-based curriculum CBC. Majority of the teachers had undergone one in service training sessions for competency-based curriculum and that the teachers were partially skilled on knowledge and skills in alternative assessment to a moderate extent.

5.2.2 Teachers' Application of Alternative Assessment Strategies at Classroom Level

The study also found that that the teachers had confidence in application of assessment strategies to a moderate extent. The head teachers also indicated that the core competencies

they found difficult to infuse during classroom instructions were in music subjects and Digital literacy while others indicated that they did not have any difficulty in core competencies to infuse during classroom instruction. The head teachers also indicated that their teachers were able to design assessment rubrics to a great extent while others indicated that their teachers were able to design assessment rubrics to an average extent.

5.2.3 Teachers' Perception in Alternative Assessment

The study further showed that the respondents agreed with the perception areas to a great extent. The head teachers also added that their teachers used assessment books and report books in reporting and notifying learners and parents after conducting formative assessment for learning. They also indicated that summative assessment was done after the completion of a term or end of the years by combining with formal assessment after the term is completed, other head teachers indicated that at the end of the term summative was not combined with formative assessment, other schools indicated that parents demanded grading of child performance at the end of the year and the rest of the head teachers indicated that summative was combined with formative assessment and even before end of term whatever time deemed necessary by the teachers.

5.3 Conclusions

Alternative assessment is the best method to enhance students' potential. Besides, alternative assessment also provides information on achievement of particular levels of skills, understanding and knowledge as oppose to achievement of certain marks or scores provided by traditional paper-and-pencil test. And especially on teacher's perceptions' and knowledge regarding the concept of alternative assessment and ways to conduct the assessment. Based on this research, researcher

can conclude that primary schools in Matungulu sub County, Machakos County teachers have positive perceptions on alternative assessment.

The findings of this study revealed that the primary school teachers perceive themselves proficient in objective assessment methods such as multiple-choice, mixed, short answer and true-false questions and traditional assessment methods such as homework and in-class observation. This finding may be explained with the fact that primary school teachers are more accustomed to these assessment methods and use these methods more frequently. Though, the reason why the some teachers felt not proficient in essay type questions was explained through using it quiet often.

In this study, the primary school teachers were found to perceive themselves insufficient in alternative and performance assessment methods such as student journal, rubric, self/peer assessment, attitude scale, interview, portfolio and project. This result shows that the primary school teachers lack enough knowledge on alternative assessment methods. In addition, the results of this study indicate that the in-service training programs in the context of the implementation of alternative assessment are insufficient in informing and nurturing teachers about measurement and assessment.

The researcher hold that, based on the research findings aforementioned, teachers were prepared to some extend to implement alternative assessment. However, there was need to for government to intensify the in-service training in terms of alternative assessment strategies; and reach out to stakeholders in regard to alternative assessment.

5.4 Recommendations

i.   All primary school teachers should undergo in-service training on alternative assessment.

ii. Teachers should be offered long-term and comprehensive in-service training programs on alternative and performance assessment methods.

iii. Teachers should be provided with appropriate teaching and learning resources for effective alternative assessment at classroom level.

iv. Pre-service teachers' curriculum should be reviewed with aim of accommodating competency based teaching, learning and alternative assessment methods.

v.   When posting teachers to primary schools, Teachers service commission should consider the skill of the existing teachers in a particular centre, this is because the study revealed that in some centre, there were no teachers to handle music activities and computer literacy and yet this learning areas were in the syllabus.

vi. Parents need to be sensitized on the new curriculum, and its effects on assessment. Because some parents were demanding for the ranking of learners' in the assessment reports.

5.5 Areas for Further Research

Future studies may inquire the proficiency perceptions of teachers about assessment methods in terms of different variables.

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Appendix I: Introductory Letter to Respondent

PIUS MUINDE MUTISO

P.O. BOX 73598,

NAIROBI, KENYA

Dear respondents,

RE: QUESTIONNAIRE ON TEACHERS' PREPAREDNESS FOR THE IMPLEMENTATION OF ALTERNATIVE ASSESSMENT AT CLASSROOM LEVEL

I am a postgraduate student at the University of Nairobi, undertaking a research on Teachers' preparedness for the implementation of alternative assessment at classroom level.

Your school has been selected to participate in the research. You are requested to fill the attached questionnaires as sincerely as possible.

Your contribution will be vital to the development of policy in alternative assessment.

Thank you very much for your cooperation.

Yours faithfully.

Pius Muinde Mutiso

Appendix II: Questionnaire for Primary School Teachers Teaching Grade Three

This questionnaire is for collecting information on teachers' preparedness for the implementation of alternative assessment in primary schools.

All the information provided will be used for the purpose of the study only. Kindly respond to all questionnaires as honestly as possible and do not indicate your name.

School: ……………………………………………

Instructions: Please tick (√) or fill information as appropriate.

Section A: Demographic information

1. Kindly indicate your gender.

   (a) Male (b) Female

2. What is your age bracket?

   (a) 20-29 (b) 30-39 (c) 40-49 (d) 50 and above.

3. What is your highest academic qualification?

   (a) Certificates   (b)   Diploma   (c)   Degree   (d)   Masters   (e)   any   other

   specify:_____

4. Which grade do you teach? _____

5. How many years have you taught? _____

SECTION B: Teachers' level of knowledge and skills in Alternative Assessment

6 Have you received any in-service training in readiness for implementation of competency-based curriculum? _____

7 How much in service training sessions for competency-based curriculum have you

attended?

Please, indicate by use of a tick (√) in the relevant column the extent to which

you have knowledge and skills in alternative assessment.

NO.	Alternative assessment skills	Not at all skilled(1)	Partially skilled (2)	Skilled (3)	Highly skilled (4)
8	I know how to use portfolios to assess pupil performance.				
9	I guide pupils to collect materials for portfolio assessment.				
10	I use classroom observation to assess pupils during activities.				
11	I know how to design classroom-based tests.				
12	I can assess pupil performance during role-plays.				
13	In addition to grades, I can give pupils written descriptions on their report cards				
14	I know how to assess pupils through oral questioning.				
15	I have enough skill to implement alternative assessment.				
16	I use the results of alternative assessment to				

NO.	Alternative assessment skills	Not at all skilled(1)	Partially skilled (2)	Skilled (3)	Highly skilled (4)
	make useful decisions for pupils.				
17	I read research about the latest methods in alternative assessment.				
18	I feel very confident when I use alternative assessment.				
19	I know how to assess pupils by using group & pair work.				
20	I use classroom-based tests in addition to alternative assessment.				
21	I can choose the kind of alternative assessment that suits the skill being assessed.				
22	I feel confident using traditional written tests.				
23	I don't need a training course in alternative assessment because I'm qualified				
24	Alternative assessment assesses pupils through multiple tests				
25	I prefer using traditional written tests to alternative assessment.				

Section C: Teachers' application of Alternative assessment strategies at classroom level

Please, indicate by use of a tick (√) in the relevant column the extent to which you have confidence in application of assessment strategies.

NO.	Assessment Strategies	Not confident (1)	Somehow Confident (2)	Confident (3)	Highly Confident (4)
26	Portfolios				
27	Rating scales and rubrics				
28	Checklist				
29	Oral presentation				
30	Project work				
31	Practical task				
32	Written essay/report				
33	Questionnaire				
34	Journaling				
35	Record of personal feeling				

Section D: Teachers' perception in Alternative Assessment

Please, indicate by use of a tick (√) in the relevant column the extent to which you agree with perception areas.

NO.	Perception Areas	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)
36	Portfolio assessment improves pupils self-assessment ability					
37	Alternative assessment is not useful					
38	Formative assessment is more important than summative assessment					
39	It is better to use alternative assessment instead of traditional written tests.					
40	Using portfolios to assess pupils is time-consuming.					
41	It is necessary to hold workshops on the use of alternative assessment.					
42	Alternative assessment plays an important role in teaching.					

NO.	Perception Areas	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)
43	Traditional written tests are more effective than alternative assessment in assessing pupil language skills.					
44	Alternative assessment helps the teacher assess pupil performance in the language skills.					
45	With alternative assessment the teacher can discover pupils' difficulties in learning.					
46	Alternative assessment lowers pupils' anxiety.					
47	Alternative assessment helps pupils understand their learning problems.					
48	Alternative assessment helps pupils learn language easily.					
49	Alternative assessment is interesting.					

NO.	Perception Areas	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)
50	Alternative assessment makes parents care about their children's performance more than their grades.					
51	With alternative assessment parents are better informed about their children's progress.					
52	Classroom-based tests are used to assess pupils' performance more than alternative assessment.					
53	It is better to assess pupils' performance daily during class.					
54	It is better to assess pupils at midterms or at the end of the year.					
55	It is difficult to grade with alternative assessment.					
56	Alternative assessment is more important					

NO.	Perception Areas	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)
	than traditional written tests.					
57	Alternative assessment helps pupils develop practical skills to use English.					
58	Alternative assessment is widely used.					
59	Alternative assessment enhances pupils' learning motivation.					
60	Managing classrooms during alternative assessment is difficult.					

Appendix III: Interview Guide for Head Teachers on their Preparedness for

Implementation of Alternative Assessment

1. Have you attended any in-service training with regard to competency-based curriculum CBC?

2. Are your teachers competent in alternative assessment skills in subject they teach?

3. Which subjects are they finding it difficult toapply alternative assessment skills?

4. Which core competencies are they finding difficult to infuse during classroom instruction?

5. To what extend are teachers able to design assessment rubrics?

6. In what way, do teachers report and notify learners and parents after conducting formative assessment for learning.

7. How is summative assessment done after the completion of a term or end of the years?

Appendix IV: Request and consent to Use Research Tools from the Previous

Research Works

• **Pius Mtso** <pmtso@yahoo.com>

To: Irfanmanarvi@yahoo.com

Sep 20, 2019 at 5:41 PM

Good evening.

Am a post graduate student from the University of Nairobi pursuing a Master's degree in Measurement and Evaluation.

My research topic is "Teachers' preparedness for the implementation of alternative assessment at classroom level.

This is to request for your consent so that I can use your research tool in your research by the Title"Teachers'' attitudes and perceptions for alternative assessment technique: a case study of Pakistani university".

Regards

Mutiso

From: irfanmanarvi<irfanmanarvi@yahoo.com>

To: Pius Mtso<pmtso@yahoo.com>

Sent: Sunday, September 22, 2019, 6:22:53 PM GMT+3

Subject: Re: REQUEST TO USE YOUR RESEARCH TOOL
No Problem Sir you are more than welcome to use it and you have my permission
Best regards
Dr Irfan Anjum Manarvi
CEng MIMechE, FHEA,
MASME, MIEEE, MEMBS, MPEC
RAWALPINDI , PAKISTAN
Phone: 03075137663

Appendix V: NACOSTI Authorization Certificate

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **110506**

Date of Issue: **28/March/2020**

RESEARCH LICENSE

This is to Certify that Mr.. PIUS MUINDE MUTISO of University of Nairobi, has been licensed to conduct research in Machakos on the topic: TEACHERS' PREPAREDNESS FOR THE IMPLEMENTATION OF ALTERNATIVE ASSESSMENT IN PRIMARY SCHOOLS IN MATUNGULU SUBCOUNTY, MACHAKOS COUNTY for the period ending : 28/March/2021.

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