OVERCROWDED CLASSROOMS AND LEARNERS' ASSESSMENT IN PRIMARY SCHOOLS IN THE KAMWENGE DISTRICT, UGANDA

By

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DECLARATION

Student number: **3477-043-7**

I, Isingoma Peter declare that **"OVERCROWDED CLASSROOMS AND LEARNERS' ASSESSMENT IN PRIMARY SCHOOLS OF KAMWENGE DISTRICT, UGANDA"** is my own work, that all sources used or quoted have been indicated and acknowledged by means of complete references.

Signed: Isingoma Date 26/10/2013

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ABSTRACT

This study focused on learners' assessment practices in overcrowded classes in Kamwenge District, Uganda. Apart from a literature review, an empirical investigation based on qualitative and quantitative methods were used to collect data by the researcher at 4 primary schools in Kamwenge district so as to find answers to the research questions.

The empirical findings elicited that all teachers agreed that assessment was useful to them and had a clear idea of what classroom assessment was all about. An interpretive paradigm made it possible for the researcher to gain an in-depth understanding of learners' assessment practices within their school contexts. There was a mismatch between what teachers said they do and what they practiced and this follows that the majority of teachers may have the theoretical knowledge of methods and tools used to assess learners but fail to translate it to classroom practice.

Key words:

Assessment practices; Classroom assessment methods; Teachers' perceptions; Theoretical knowledge; Learners' assessment; Teaching and learning resources; Conceptualizing assessment; Implications of overcrowding in classrooms;

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ACRONYMS USED IN THIS STUDY

ARG – Assessment Reform Group

CC – Coordinating Centre

CCT – Coordinating Centre Tutor

CEO – Chief Executive Officer

CRC – Convention for the Rights of Children

DEO – District Education Officer

DES – Directorate of Education Standards

EFA – Education for All

EMIS – Education Management Information System

ESA – Education Standard Agency

ESR – Education Sector Review

FTI – Fast Track Initiative

FY – Financial Year

GOU – Government of Uganda

MDG – Millennium Development Goals

MoES – Ministry of Education and Sports

MTBF – Medium Term Budget Framework

NAPE – National Assessment of Progress in Education

NGO – Non Government Organizations

PCR – Pupil Class Ratio

PEAP – Poverty Eradication Action Plan

PLE – Primary Leaving Examinations

PTC – Primary Teachers College

PTR – Pupil Teacher Ratio

LCD – Link Community Development

SFG – School Facility Grant

SST – Social Studies

TDMS – Teacher Development and Management System

UBE – Universal Basic Education

UNEB - Uganda National Examination Board

UNESCO – United Nations Educational Scientific and Cultural Organization

UPE – Universal Primary Education

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 Introduction

The changing concepts of learning, achievements and curriculum have resulted in expanded notions of what constitutes real education reform. Education reformers have increasingly relied on assessment to attain their objectives, to substantiate their contentions, or to promote implementations of their innovations. It is worth mentioning that quite often in this study assessment and evaluation shall be interchangeably used. The reformers are joined by lawmakers who incorporate assessment framework or mandate an evaluation component into new legislation. Seels & Richey (1994:53) define evaluation as "determining the adequacy of instruction and learning". Teachers in implementing assessment play a major role. Gary (1997:8), in view of assessment states that "the center of assessment revolution are the teachers and those with concerns about the information needs of classroom teachers" He continues to argue that the primary reason for engaging classroom assessment is to support and improve students' learning. Since the introduction of Universal Primary Education (UPE) in 1997 in Uganda, enrolment in primary education tripled from about 2.7 million in 1996 to 8.2 million in 2009 (Uganda MDGs Report, 2010:17). The enrolments in many classrooms in Kamwenge are still above the recommended Government pupil classroom ratio of 55:1 and teachers who are the key to delivering the education Millennium Development Goals are not thriving within a favorable environment to give a critical input to the education system in order to achieve the MDGs by 2015.

1.2 Background

Education is not only a fundamental human right, but is also essential and indispensable for the exercise of all other rights. It is a key investment for the social development and transformation of the individual's well-being. It is also a tool for empowering all human beings to enjoy their political, economic and social rights. There is an increasing recognition among the international community that limited access to education is a violation of fundamental human rights and serves as the basis for exclusion from meaningful participation in the economic, social, political and cultural life of the community (Transparency International, 2009:7). The provision of basic education for all children by 2015 is one of the world's major educational objectives. This recognition has inspired global initiatives in setting up guiding principles and instruments that ensure equitable access to education for all and through UNESCO's Education for All (EFA) commitments and the UN's Millennium Development Goals (MDGs) the national and international attention is focused on measures to achieve the Universal Basic Education (UBE) by the year 2015.

Uganda as a partner of the Education for All (EFA) coalition launched Universal Primary Education (UPE). This happened in 1997, following a Presidential campaign pronouncement in 1996 to provide free education to a maximum of four children from each family. This was, however, later changed in 2002, to cover all children of school-going age. (New Vision 2002) This resulted into the increase of primary school enrolment figures to 8.2 million as mentioned earlier and in the World Bank report as cited in UN Millennium Project report, (2008:55), registered particularly the girls enrolment which increased from 63% to 83% which became one of the attributes of UPE and this resulted to large classes. O'Sullivian as cited in Nakabugo (2008:118) describes large classes, depending on the region, as those ranging between 25-30 as in UK, more than 35 learners in United States and 60 or more in developing countries.

Although the increase of enrolment is seen as a success in the UPE programme Uganda still faces the problem of addressing the short falls in access, equity in

quality. The UN Millennium Project report, (2005:53), supports the need to significantly accelerate the enrolment of children and improve the ability to keep them at school, and the children must achieve major improvements in learning outcomes and educational attainments at a level required to have an economic and social impact. The full achievement of UPE requires not just that children schooling but that they move through the whole system and graduate after primary seven and this requires improved retention and quality.

The table 1.1 below shows the primary enrolment growth rate and some access/quality indicators as from 2003 to 2007;

Table 1.1 showing the primary growth rate:

Quality indicator	***2003***	***2004***	***2005***	***2006***	***2007***
Enrolments(in000's)	7,637	7,377	7,224	7,362	7,535
% change in enrolment	3.8	-3	-2	1.9	2
No. of primary teachers(in 000's)	146	147	145	150	132
Net enrolment rate	100.8	90	93	92	93.3
Gross intake rate	155.7	147.1	152.8	129	128.5
No. of primary schools	13,353	13,371	13,576	14,285	14,728
Pupil Teacher ratio	5.2	50	48	48	57
Pupil classroom ratio	87	74	72	72	72

Source: Annual school census Uganda 2008

Similar studies on assessment have stated the importance of assessment to individuals and institutions. Mansell, James and ARG (2009:1) mentions that "Assessment is essential to allow individuals to get the educational support they need to succeed, to see the effectives of different educational methods, and to ensure that educational budgets are being spent effectively". While Dunn, Mehrotra

& Halonen, (2004: xii) reveal that “Assessment is a vital tool in helping institutions determine if they are meeting the academic needs of all the students and preparing them to be successful in tomorrow’s market place and society”. In carrying out students’ assessment to generate information, teachers are considered as key in the implementation process. Lamprianou and Athanasou (2009:1) comments indicate that teachers spend as much time as one third of their time in assessment related activities and there are indicators that this workload is not decreasing.

This research is investigating the teachers’ perception/attitude on assessment, teachers’ assessment practices, and challenges faced by teachers while carrying out assessments.

1.3 Statement of the problem

Uganda has put measures to improve the quality of education in primary schools, but the performance of pupils in the Primary Leaving Examination (PLE) is still poor in the majority of districts (New Vision, 2009:3). In addition the Schools Inspectorate Department in most districts is found to be lacking in vigilance to uphold education standards. Some schools are never inspected, not even once in the entire school year. School inspectors attribute this to increased workload and insufficient resources. By nature, inspection is more reactive than proactive, since schools with problems are prioritized. As a result education standards, especially, in the rural areas suffer a decline because of poor or lack of school inspection (Transparency, 2009:34).

What students learn, how much effort they put into it, and the nature of their learning is determined for most by the extent and nature of the assessment they expect to receive. Gibbs and Simpson as cited in First UQ Assessment brief (2009:1), summarize the impact of assessment when they mention “It is assumed that assessment has an overwhelming influence on what, how and how much students study”. This study, presents a way to investigate the students assessment in Kamwenge district, Uganda. The central and guiding question is as follows: What challenges do overcrowded classes have on effective assessment in primary schools

in Kamwenge district? In line with the central question, the guiding research sub-questions are:

1. What are the requirements for the effective implementation of assessment within the Millennium Development Goals (MDGs) framework in overcrowded classrooms?
2. How do primary school teachers perceive classroom assessment?
3. What kind of assessment methods and tools do teachers use to assess their students?
4. What is the influence of teachers' perception of classroom assessment on their classroom assessment practices?

1.4 Aim and objectives of the study

The main aim of the research is to explore regular students' assessment practices in overcrowded classes. The objectives for this study are to:

1. Investigate the requirements for the effective implementation of assessment within the Millennium Development Goals (MDGs) framework in overcrowded classrooms.
2. Determine the teachers' perceptions/attitudes in assessing overcrowded classroom schools in Kamwenge district.
3. Explore the emerging trends and challenges in assessment in the primary schools of Kamwenge district?
4. Suggest a form of assessment training that should be provided to the teachers of primary schools Kamwenge district

1.5 Purpose of the study

This study was designed to investigate the current classroom assessment practices to primary school teachers in four selected schools in Kamwenge district. According to Mansell et al (2009:7) assessment information today has become a proxy measure that is supposed to facilitate judgments on the quality of most elements of our education system. Particularly, the study wanted to understand the methods and tools teachers use to assess their students. The researcher studied closely how classroom assessment was being carried out in the classroom by focusing on the strategies and tools the teachers used to assess the students. Furthermore, the researcher investigated teachers' perceptions of the role of assessment in teaching and learning and provides a way forward for the improvement of students' performance in Kamwenge district.

1.6 Methodology

Methodology can be defined as a way of thinking about and studying social reality and research Methods that are a set of procedures and techniques for gathering and analyzing data (Strauss & Corbin 1998:3). In this study the researcher used mixed methods i.e. qualitative and quantitative in order to find answers to the research questions. For Creswell (2009: 203), mixed method research is a design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection of and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process. As a method, it focuses on collecting, analyzing, and mixing both qualitative and quantitative data in single study. Its central premises is that the use of qualitative and quantitative approaches in combination provides a better understanding of research problems than either approach alone Garbers, (2006: 109).

A detailed account of the research methodology employed in this study appears in Chapter 3

1.7 Scope and Delimitation of the study

The study is limited to the primary schools in Kamwenge District in Uganda. The district consists of two Counties with five coordinating Centers but the study will focus on two coordinating centers in each County and these are: Kamwenge and Bwizi in Kibaale County, and Nyabbani and Bunena in Kitagwenda County. The outcome of the study will bring out the teachers perception of classroom assessment and their classroom assessment practices.

1.8 Limitation of the study

There are 10,179 government grant aided primary schools in Uganda (Statistical abstract, UBOS. (2009:10) and 147 Government grant aided primary schools in Kamwenge district but only 4 primary schools participated. This study used purposeful sampling of respondents as a result not all respondents had an equal chance of being selected in the study. The sample size and sampling method used make it difficult to generalize the results of the whole population of teachers in Kamwenge. However, the results are generalize to the schools sampled and give an insight of what the picture could be like if more participants and other sampled methods are used.

1.9 Definition of terms

Sallies (1993:21) contends that it is imperative to clarify concepts in the study as they may bear different meaning for different people, and as a result, may lose their connotative meaning. The concepts clarified below are critical to an understanding of the discourse in this study. More detailed explanations are provided in relevant sections of the study.

1. **Assessment and Assessment practice**

Junita as cited in Mangope, B., Kuyini, A. B., Major, T. (2012:139) states that assessment is defined as the process of collecting data, analyzing and valuating information about a student's achievement or student characteristics in order to make educational decisions about that individual student. The meaning of

assessment as stated by Dean (1992:244), notes that, assessment is to promote the development of methods of assessing the achievement of children at school and to seek to identify the incidence of underachievement. According to Gary (1997:8), assessment refers to new formats for gathering information about students' achievements. In this study we shall refer to assessment as the process of collecting information purposefully using different methods/strategies and tools for the purposes of informing decision and Assessment practice as a manner of conducting assessment for instance observation and diagnostic interviews.

2. Classroom Assessment

> Ainscow as cited in Susuwele-Banda (2005:12) describes classroom assessment as any planned method or strategy used in the classroom to establish the level of students' difficulties or understanding of a particular concept or idea with the purpose of helping students to succeed in learning. Classroom assessments are those developed or selected by teachers for use during their day-to-day instruction. They are different from the standardized tests that are conducted annually to gauge student achievement, and are most frequently used to serve formative purposes, that is, to help students learn. However, classroom assessments also can be used summatively to determine a student's report card grade. (http://education.stateuniversity.com/pages/1770/Assessment.html)

In the broadest sense assessment is concerned with children's progress and achievement. More specifically, classroom assessment may be defined as the process of gathering, recording, interpreting, using and communicating information about a child's progress and achievement during the development of knowledge, concepts, skills and attitudes. Assessment, therefore, involves much more than testing. It is an ongoing process that encompasses many formal and informal activities designed to monitor and improve teaching and learning in all areas of the curriculum. (NCCA, 2004:23)

According to ARG, (2011:11) state that Classroom assessment will focus on the application of standards and expectations of each learner's progress and achievement in knowledge and understanding, skills and attributes and capabilities.

3. Standards

Standards, as they are used in education, are verbal statements of goals or desired classes of outcomes and they describe what the goals of the system are. Standards differ according to function and have been put in least three overlapping classifications of Content standards, Skill standards and Performance standards. Content standards are often arrayed in a continuum of development, specifying, for instance, particular standards for eighth-grade students or for beginning readers or those standards thought to be necessary to meet high school graduation requirements. Skill standards are explications of either a fundamental skill, such as reading, or job-performance standards, such as the ability to work in teams. Performance standards denotes two very different concepts, one of communicating more clearly the intention of general content, or the “what” and the other of delimiting the degree of proficiency, or the "how much" part, of performance. (http://education.stateuniversity.com/pages/2444/Standards-Student-Learning.html)

1.10 Significance of the study

This study is significant to the researcher, students, teachers, school administrators and Education officers. The study seeks to come up with the conditions that can be offered as a frame work for teachers to review the effectiveness of their own assessment practice and also use the information to develop assessment guide lines for their respective schools. The findings will add to the current body of knowledge, literature, and data base about assessment of students. This study will indeed give basis for planning and give guidance in the execution of effective assessment of students in Kamwenge district.

1.11 The organization of the study

The entire study is organized into five chapters. Chapter one introduces the study. It also addresses the focus of the study; it includes the background, the significant, the research questions and the overall study for the entire study. Chapter two presents the review of literature. Chapter three gives the methodology of the study. Chapter four explains the findings of the study and chapter five gives the conclusion and recommendations.

1.12 Conclusion

In this chapter an introductory overview and background, problem statement and research questions and the aim of the study were presented. Also, the research methodology was outlined and the key concepts used in this study were clarified. In the next chapter, the literature review underpinning this study will be discussed.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, the literature review given helps in the investigation of learners' assessment in overcrowded classroom so as to create a better theoretical understanding of the given analyzed data. The literature continues to show that teachers in implementing assessment of learners play a major role. Gary (1997:8) argues that the primary reason for engaging classroom assessment is to support and improve students' learning. Assessment information has become a proxy measure that is supposed to facilitate judgments on the quality of most elements of our education system: its teachers, head teachers, schools, support services, local authorities and even the government itself (Mansell et al, 2009:7). From its close focus assessment helps teachers and learners build a shared understanding of the progress the learner has made in order to provide pointers for further development, to the wide-angle view of national education standards that test and examination results purport to provide; assessment information is now used in a multitude of ways. If the results of assessment are not used to improve student learning, assessment becomes at best a descriptive set of data about students and, at worst, a useless exercise furthermore assessment results are less likely to produce meaningful improvement in learning if only a small number of people or offices make all of the decisions about modifications to the learning experience (Middle States Commission on Higher Education 2008:59)

This chapter is the focal point for the explanation of perception of assessment in classrooms and has been written in different sub topics to give the reader the insight of assessment as follows; conceptualizing assessment, historical background of the concept assessment, philosophical assumptions underpinning assessment, forms of assessment, characteristic features of assessment, the implications of overcrowding in classrooms for millennium development goals, emerging trends and challenges in assessment in Ugandan schools and overcrowded classrooms as a policy imperative. The notion of this study is that if teachers and head teachers are given

more knowledge and skills through training on students' assessment, the performance of students will improve in all schools.

2.2 CONCEPTUALIZING ASSESSMENT

2.2.1 Introduction

When people see, or hear, the word assessment they normally react in a fairly negative way. It might be a deep sigh or a cry, but rarely will it be a smile or a cry of joy, while many other people still assume that assessment is simply another word for testing. Why is it that people feel this way at the mention of assessment? I think the first problem is that people don't really understand what is meant (or should be meant) by assessment. A second issue could be that they have had fairly bad experiences in the past and this has an influence on them. And, thirdly, it could be that assessment is often seen as a pass or fail thing – and nobody likes to fail. The term "assessment" may be defined in multiple ways by different individuals or Institutions. In this study assessment and evaluation are used as synonyms. According to Angelo, T., (1995:7) assessment is an ongoing process aimed at understanding and improving student learning. It involves making expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards, and using the resulting information to document, explain, and improve performance. Palomba, C.A. & Banta, T.W. (1999:4) define assessment as systematic collection, review, and use of information about educational programs undertaken for the purpose of improving learning. Assessment is the systematic collection of information about student learning and the use of that information to improve the learning and teaching process in the classroom.

Evaluation entered the discourses of education in 1949,when Ralph Tyler, in *Basic Principles of Curriculum and Instruction* defined curriculum not only as the activities in which students engaged, which was how Bobbitt had defined curriculum, but also as the objectives those activities were meant to fulfill, as well as the organization and evaluation of those activities. Evaluation, thus, became

inseparable from and integral to curriculum. Education should be organized to ensure that the objectives, carefully selected and defined, were achieved, and to accomplish this goal evaluation was necessary: a quantitative measurement assessing to what extent the behaviors, indeed, had been changed. Evaluation became the fourth component to what would soon be named the Tyler rationale. Tyler formalized into a rationalized methodology what Bobbitt had begun. What Tyler added to curriculum discourse was the centrality of evaluation, or, as Tyler would come to call it, “assessment (Finder, 2004:106).Tyler (1949:105) clarifying the need for evaluation and defined evaluation as “a process that finds out how far the learning experiences as they were developed and organized actually produced the desired results”. When examining evaluation, Tyler identified two important aspects. First, evaluation must appraise the student’s behavior, since according to Tyler, 1949:106), “it is the change in these behaviors which is sought in education”. Second, evaluation must include at least two appraisals. Tyler pointed out that it is important to appraise the students before and after the learning experiences in order to measure the amount of change. This can be accomplished through the use of pre-test and post-test. Tyler, (1949:106) asserts “the process of evaluation is essentially the process of determining to what extent the educational objectives are actually being realized by the program of curriculum and instruction. Tyler, as cited in (Horowitz, 1995:68) believes that evaluation must be guided by a purpose and be sensitive to the uniqueness of the individual being assessed.

According to Little, as cited in Braun, Kanje, Bettinger & Kremer, (2006:2) some assessments serve learners, teachers, parents, and policy makers by providing them with useful information, others focus educational efforts by virtue of the consequences that are attached to learner performance. This dual role leads to the paradox of “high-stakes” assessment as an instrument of change. This paradox is at the heart of the controversy over assessment in educational circles. To some, assessment is a fair and objective way to set and maintain standards, to spearhead reform at the levels of both policy and practice, and to establish a basis for meaningful accountability. To others, it is an instrument for maintaining the status

quo, grossly unfair and educationally unproductive. Whatever their position, most observers would agree that assessment is neither an end in itself nor a panacea for the ills of education. They would likely also accept the proposition that major improvements in assessment systems must be part of a broader educational reform agenda that will be driven by and constrained by political, economic, and social considerations.

Lamprianou and Anthanasou (2009:3) continue to define assessment as a process of collecting and organizing information from purposeful activities (e.g. tests on performance of learning) with view of drawing inferences about teaching and learning, as well as about persons, often making comparisons against established criteria. To some educators, assessment refers to “new formats for gathering about students achievements e.g. portfolio assessment to others assessment refers to a new attitude towards gathering information, an attitude that is perhaps kinder and gentler than that presented by standardized testing” (Gary,1997:8). Student assessment often plays a critical role in standards based reform efforts, particularly at the state and national level. It is often the creation of the assessment program that triggers the development of the content standards that will guide not only the assessment program but the broader efforts at curricular and instructional reform. In addition, assessment programs are often perceived to be the single best mechanism for communicating changing standards of student expectations and the levels of student performance (Gary, 1997:165).

Technology seems to holds a great promise for enhancing educational assessment at multiple level of practice, but its use for this purpose also raises issues of utility, practicality, cost, equity, and privacy (Pellegro, Chudowsky, & Glaser, 2001:10). Every Assessment, regardless of its purposes, rests on three pillars: A model of how students prevent knowledge and develop conference in the subject domain, tasks or situations that allows one to observe students performance and an interpretation method for drawing inference from the performance evidence that obtained (National Research Council (NRC), 2001:2). Teachers should be assisted in integrating new forms of assessment into their instructional practices. Assessment has become an indicator for monitoring learners’ progress. For example “The Ofsted guidance to

inspectors' issue of February 2009 (as cited in Mansell, James & ARG, 2009:7) states that no school can be judged to be good unless learners are judged to make good progress as measured by assessment results".

Education reform will be difficult to achieve if teachers continue to carry the weight of practices designed for past times. New methods of assessment can begin to drive changes in the curriculum, teaching and learning that supports pattern of human cognitive growth and prepare people for dignified lives, work place competence, and social development (Pellegro, et al., 2001:34). A commitment to the assessment of student learning requires a parallel commitment to ensuring its use. Perhaps the most difficult part of assessing student learning is the process of effecting change in teaching and learning as a result of information gained through assessment practices. It is pointless simply to do "assessment"; the results of assessment activities should come full circle to have a direct impact on teaching and learning and on the institution's strategic plan to fulfill its mission. (Middle States Commission on Higher Education 2008:59). However, assessment successes need to be positively reinforced in a way that makes the campus community aware of the value of assessment.

To improve students' achievement across the curriculum, improving teacher quality and their capacity to use assessment as central to learning may be the most effective way to achieve this goal. Berry (as cited in Berry and Adamson, 2004:100) articulate that in order to make assessment a useful tool for teaching and learning, it is necessary to empower the teachers with knowledge and skills, and what teachers need to concrete ideas on is how to translate the assessment for learning concepts into classroom actions including detailed techniques for implementing assessment for learning situations.

Table 2.1 below shows the scope for educational assessment in teaching;

Table 2.1: Assessment and Teaching Process

BEFORE TEACHING
To determine the level of skills and Knowledge prior to instructions
T o diagnose learning difficulties or advance achievement
To plan instructions
DURING TEACHING
To make on-going changes and improve teaching and learning
To focus on a small segment of instruction
To identify learning errors and misconceptions and make remedial actions
AFTER TEACHING
To certify the attainment of outcomes at the end of learning
To self evaluate your teaching of effectiveness and improve teaching plans
To assign grades and communicate results

(Adapted from Lamprianou and Anthanasou, 2009:8)

Assessment and testing have a strong effect on the lives and careers of young people. Decisions taken within and by schools influence the prospects and opportunities of their students and of even greater importance are their results of national tests and examinations. A teacher's planning should provide opportunities for both learner and teacher to obtain and use information about progress towards learning goals. It also has to be flexible to respond to initial and emerging ideas and skills. Planning should include strategies to ensure that learners understand the goals they are pursuing and the criteria that will be applied in assessing their work.

How learners will receive feedback, how they will take part in assessing their learning and how they will be helped to make further progress should also be planned. ARG, (2002:2) urges teachers to embrace assessment for learning, which is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there. They developed research based principles to guide the classroom practice because of the following reasons:

- Assessment for Learning focuses on how students learn. The process of learning has to be in the minds of both learner and teacher when assessment is planned and when the evidence is interpreted. Learners should become as aware of the 'how' of their learning as they are of the 'what'.
- Assessment for Learning is central to classroom practice. Much of what teachers and learners do in classrooms can be described as assessment. That is, tasks and questions prompt learners to demonstrate their knowledge, understanding and skills. What learners say and do is then observed and interpreted, and judgments are made about how learning can be improved. These assessment processes are an essential part of everyday classroom practice and involve both teachers and learners in reflection, dialogue and decision making.
- Assessment for Learning is a key professional skill. Teachers require the professional knowledge and skills to: plan for assessment; observe learning; analyze and interpret evidence of learning; give feedback to learners and support learners in self-assessment. Teachers should be supported in developing these skills through initial and continuing professional development.
- Assessment for Learning is sensitive and constructive. Teachers should be aware of the impact that comments, marks and grades can have on learners' confidence and enthusiasm and should be as constructive as possible in the feedback that they give. Comments that focus on the work rather than the person are more constructive for both learning and motivation.
- Assessment for Learning fosters motivation. Assessment that encourages learning fosters motivation by emphasizing progress and achievement rather than failure. Comparison with others who have been more successful is

unlikely to motivate learners. It can also lead to their withdrawing from the learning process in areas where they have been made to feel they are ‘no good’. Motivation can be preserved and enhanced by assessment methods which protect the learner’s autonomy, provide some choice and constructive feedback, and create opportunity for self-direction.

- Assessment for Learning promotes understanding of goals and criteria. For effective learning to take place learners need to understand what it is they are trying to achieve - and want to achieve it. Understanding and commitment follows when learners have some part in deciding goals and identifying criteria for assessing progress. Communicating assessment criteria involves discussing them with learners using terms that they can understand, providing examples of how the criteria can be met in practice and engaging learners in peer- and self-assessment.
- Assessment for Learning helps learners know how to improve. Learners need information and guidance in order to plan the next steps in their learning. Teachers should: pinpoint the learner’s strengths and advice on how to develop them; be clear and constructive about any weaknesses and how they might be addressed; provide opportunities for learners to improve upon their work.
- Assessment for Learning develops the capacity for self-assessment. Independent learners have the ability to seek out and gain new skills, new knowledge and new understandings. They are able to engage in self-reflection and to identify the next steps in their learning. Teachers should equip learners with the desire and the capacity to take charge of their learning through developing the skills of self-assessment.
- Assessment for Learning recognizes all educational achievement. Assessment for learning should be used to enhance all learners’ opportunities to learn in all areas of educational activity. It should enable all learners to achieve their best and to have their efforts recognized.

2.2.2 Historical background of the concept assessment

A very long history of educational assessment can be dated from at least 2200 BC when the Mandarins set up a civil-service testing program. For the most part were oral examinations (*Viva Voce*) which were used to evaluate achievements (Lamprianou & Anthanasou, 2009:4). In addition, Guba and Lincoln (1981) note that Chinese emperor in 2200 B.C. required that his public officials demonstrate their proficiency in formal competency tests. On the other hand, Berry and Black (as cited in Berry & Adamson, 2004:7) present the earliest records of formal assessment dating it back to the western Zhou Dynasty in China (1027 – 1771 BC) when regular examination were held to select officials for various ranks of the imperial civil services. It is further stated that early in the 19th century classified literature and written rhetoric (in the form of essays) featured as assessment in schools like Harrow in the UK where examinations were for selection of students and promotion to higher grades. Berry and Adamson (2004:99) contend that assessment over centuries has been mainly used for selection and accountability purposes in the East and Western worlds. The social and economic demands in the 19th century created an increasing need for workers of different trades for which standardized examination system was identified as being useful for screening and streaming purposes.

The 20th century saw the rising of testing in schools. Broadfoot (as cited in Clare & Cumming, 2009:x) observed that the purpose of assessment was summative, the content addressed was primarily discrete cognitive tasks and the mode was largely assessment of students' performance in traditional paper and pencil test through large scale testing and assessment providers. Many proponents like Ralph Tyler, Franklin Bobbitt, Benjamin Bloom, Lawrence Stenhouse, John Dewey, Jerome Bruner, and Hilda Taba played leading roles during the first three decades of the twentieth century in establishing curriculum as a field of specialization within the discipline of education. All of them focused on the procedures for curriculum development and planning, which comprised of the school experiences that educators constructed to enable children attain objectives of the curriculum. Each advocate sought to promote an active role for teachers in educational research and

curriculum development. A curriculum was conceived as a particular form of specification about the practice of teaching. Their contributions in the field of education are stated as follows:

2.2.2.1 Ralph W. Tyler (1902–1994)

Ralph W. Tyler's long and illustrious career in education resulted in major contributions to the policy and practice of American schooling. His influence was especially felt in the field of testing, where he transformed the idea of measurement into a grander concept that he called *evaluation*; in the field of curriculum, where he designed a rationale for curriculum planning that still has vitality today; and in the realm of educational policy, where he advised U.S. presidents, legislators, and various school leaders on new directions and improvements for public schooling. Upon graduation in 1927, Tyler took an appointment at the University of North Carolina, where he worked with teachers in the state on improving curricula. In 1929 Tyler followed W. W. Charters to the Ohio State University (OSU) and joined a team of scholars directed by Charters at the university's Bureau of Educational Research, taking the position of director of accomplishment testing in the bureau. He was given the task of improving their teaching and increasing student retention at the university. His OSU ties brought him into the company of the Progressive Education Association and its effort to design a project dedicated to the reexamination of course requirements in American high schools. Known as the Eight-Year Study, the project involved thirty secondary schools that agreed to experiment with various alternative curricula approaches. Tyler first coined the term *evaluation* as it pertained to schooling, describing a testing construct that moved away from pencil and paper memorization examinations and toward an evidence collection process dedicated to overarching teaching and learning objectives. Tyler could very well be considered one of the first proponents of what is now popularly known as *portfolio assessment.* Tyler believed that the structure of the school curriculum also had to be responsive to three central factors that represent the main elements of an educative experience: (1) the nature of the learner (developmental factors, learner interests and needs, life experiences, etc.); (2) the values and aims of society (democratizing principles, values and attitudes); and (3) knowledge of subject matter (what is believed to be worthy and usable knowledge).

Tyler's reputation as an education expert grew with the publication of *Basic Principles of Curriculum and Instruction.* Because of the value Tyler placed on linking objectives to experience (instruction) and evaluation, he became known as the father of behavioral objectives. This led many to again characterize his work in the tradition of the social efficiency expert aiming to atomize the curriculum with hyper-specific objectives. Tyler, however, claimed no allegiance to such thinking. To him, behavioral objectives had to be formed at a generalize level, an idea he first learned in graduate school under Charles Judd, whose research focused on the role of generalization in the transfer of learning. And although Tyler understood that schooling was a normative enterprise, he showed great regard for the exercise of local prerogatives in the school and cited a concern for "children who differ from the norm" as an educational problem needing attention.

Tyler exercised enormous influence as an educational adviser. Tyler assisted Robert Hutchins in restructuring the university's curriculum in the late 1940s. In 1952 he offered U.S. President Harry Truman advice on reforming the curriculum at the service academies. In the late 1960s Tyler took on the job of designing the assessment measures for the National Assessment of Education Progress (NAEP), which are federally mandated criterion-reference tests used to gauge national achievement in various disciplines and skill domains.

Given the longevity of his career in education and wide-ranging influence of his work in the policy and practice of public education, especially in the realm of curriculum development and testing, Tyler could very well be seen as among the most influential of figures setting the course for the American public school during the second half of the twentieth century (Ralph W. Tyler, http://education.stateuniversity.com/pages/2517/Tyler-Ralph-W-1902-1994.html#ixzz2ZZeQpqEG)

2.2.2.2 Franklin Bobbitt (1876–1956)

John Franklin Bobbitt was born near English, Indiana on February 16, 1876. He was a son of James and Martha Bobbitt. He was born of true American stock, who

believed that hard work, study, self-discipline, religious faith, and devotion to duty were the absolute ingredients for survival in this life and entry into the life beyond. Bobbitt earned his undergraduate degree at Indiana University and then went on to teach, first in several rural schools in Indiana and later at the Philippine Normal School in Manila. After receiving his doctorate at Clark University in 1909, he joined the faculty of the University of Chicago, where he remained until his retirement in 1941. Professor of educational administration at the University of Chicago, Franklin Bobbitt played a leading role during the first three decades of the twentieth century in establishing curriculum as a field of specialization within the discipline of education. Bobbitt was a social efficiency advocate who saw the curriculum as a means for preparing students for their adult roles in the new industrial society. Bobbitt is best known for two books, *The Curriculum* (1918) and *How to Make a Curriculum* (1924). In these volumes and in his other writings, he developed a theory of curriculum development borrowed from the principles of scientific management, which the engineer Frederick Winslow Taylor had articulated earlier in the century in his efforts to render American industry more efficient.

Bobbitt's legacy falls into four areas. First, he was one of the first American educators to advance the case for the identification of objectives as the starting point for curriculum making. He stated that education was not important in its own right. Its value lay in the preparation it offered children for their lives as adults. Second, the scientific approach to curriculum making served as a precedent for the work of numerous educators during the next half-century in spelling out the procedures for designing the course of study. Third, Bobbitt along with other early-twentieth-century efficiency-oriented school reformers made the case that the curriculum ought to be differentiated into numerous programs, some academic and preparatory and others vocational and terminal, and that students ought to be channeled to these tracks on the basis their abilities. Finally, Bobbitt was one of the first American educators to define the curriculum as an instrument of social control or regulation for addressing the problems of modern society.

Bobbitt formulated five steps in curriculum making: (a) analysis of human experience, which dealt with separating the broad range of human experience into major fields (b) job analysis, this was to break down the fields into their more specific

activities (c) deriving objectives of education from statements of the abilities required to perform the activities. (d) Selecting objectives from the list of objectives which were to serve as the basis for planning pupil activities, and (e) planning in detail and this entailed to lay out the kinds of activities, experiences, and opportunities involved in attaining the objectives (John Franklin Bobbit, http://calvin_kyle_bobbitt.tripod.com/Individuals/JohnFranklinBobbittPhD.html)

2.2.2.3 Hilda Taba (1902–1967)

Hilda Taba is known worldwide as an outstanding American educator and curriculum theorist, born, brought up and educated in Estonia. She belonged to the list of the most outstanding educators of the twentieth century and whose academic work climaxed with the publication of the monograph *Curriculum development: theory and practice* (1962). Taba remained unknown in her native country for decades. So, in spite of the fact that Taba's approach to curriculum design spread throughout the world and her monograph took an honourable position on the bookshelves of European education libraries in the 1960s, her educational ideas reached Estonian educators only at the end of the 1980s. Nowadays, her work in the field of curriculum design, alongside that of Ralph W. Tyler, belongs to the classics of pedagogy. Several contemporary authors still frequently refer to Hilda Taba's ideas and base their work in the field of curriculum theory and practice on her conceptions developed decades ago (UNESCO:International Bureau of Education, 2003:482). Hilda Taba, curriculum theorist, curriculum reformer, and teacher educator, contributed to the theoretical and pedagogical foundations of concept development and critical thinking in social studies curriculum and helped to lay the foundations of education for diverse student populations. Three key ideas in the work of Taba are particularly important for curriculum history in the twentieth century. First, she argued that learning and the study of learning should be modelled after dynamic models derived from contemporary physics. Rather than relying on observation, prediction, and measurement of static phenomena, educators should see learning as a dynamic interactive phenomenon that is informed by the developing field of cognitive psychology. Thus she established a paradigm that was appreciably different from a simple transmission model of education and evaluation. Second, she argued that

education for democracy was a critical component of contemporary schooling and curricula, and that it needed to be experiential, where children learn to solve problems and resolve conflicts together. Her thinking in democratic education foreshadowed constructivist curricula. Third, she argued that educators had to provide conceptually sound curriculum that was organized and taught effectively, and that student understanding had to be evaluated using appropriate tools and processes (Hilda Taba, http://www.answers.com/topic/hilda-taba)

Taba believed that the students make generalizations only after data are organized. She believed that students can be led towards making generalizations through concept development and concept attainment strategies. Hilda describes generalization as a higher order of thinking when compared to forming of concepts. Generalizations like concepts are the end products of process of an individual's abstracting from a group of items of his experiences those elements of characteristics the item shares, and expressing his recognition of this commonalty in a way that is convincing to others. She continued to give the major differences between concepts and generations as; first of all, that in generations the verbal form of the process is expressed as a sentence rather than a word or phrase as in the case of concepts, and second, the generalizations are here taken as representing a higher level of thinking than concepts in that they are a statement of relationship among two or more of the concepts (Taba, H., Durkin, M. C., Fraenkel, J.R., & NcNaughton, A.H., 1971:72).

Hilda Taba was a colleague of John Tyler's whose idea of how to develop curriculum was there must be a definite order to the creation of a curriculum. Taba's approach is based on the behavioral approach to curriculum design. It is based on a step by step plan, with specific goals and objectives with activities that coincide and are evaluated with the stated objectives. She developed a process for determining what needs to be taught to students and included a guide on how to accomplish the outcomes from students (Costa & Loveall, 2002:56). She believed that there must be a process for evaluating student achievement of content after the content standards have been established and implemented. One of Taba's 'major contributions was to recognize that social science could provide a strong foundation for education, with sociology,

social pedagogy and cultural anthropology in particular illuminating issues in human relations education' (Brady, 1992:8).

Many of Taba's ideas on curriculum design can be considered as a further elaboration of Ralph Tyler's rather psychological principles of curriculum development: attributing to them a more pedagogical and practical nature. This is well evidenced by reconsidering the meaning and nature of Tyler's (1969) rationale of curriculum design: (1) stating educational objectives; (2) selecting and (3) organizing learning experiences; and (4) assessing the achievement of objectives. In her version she introduced notions of multiple educational objectives and four distinct categories of objectives (basic knowledge, thinking skills, attitudes and academic skills) Taba (1967:11). According to Krull & Kurm, (1996:11): they state that the ideas that made Taba world famous kept developing and evolving gradually throughout her career. A preliminary, and therefore incomplete, analysis of her scientific heritage suggests at least four principles that seem to govern her vision of curriculum theory and curriculum development were:

1. Social processes, including the socialization of human beings, are not linear, and they cannot be modeled through linear planning. In other words, learning and development of personality cannot be considered as one-way processes of establishing educational aims and deriving specific objectives from an ideal of education proclaimed or imagined by some authority.
2. Social institutions, among them school curricula and programmes, are more likely to be effectively rearranged if, instead of the common way of administrative reorganization from top to bottom a well-founded and coordinated system of development from bottom to top can be used.
3. The development of new curricula and programmes is more effective if it is based on the principles of democratic guidance and on the well-founded distribution of work. The emphasis is on the partnership based on competence, and not on administration.
4. The renovation of curricula and programmes is not a short-term effort but a long process, lasting for years.

The principle of considering social processes as non-linear is the most important one, and it probably governs all of Hilda Taba's educational work. Taba (1932:142) pointed out already in her doctoral dissertation that 'ends and aims, as they are in actual life, seldom present themselves as simple and easily comprehensible units' and, therefore, 'a purposive act must be regarded primarily as an outgrowth of previous activity and not as an independent unit starting and activating because of some end or purpose clamoring for actualization'. Probably the most characteristic feature of Hilda Taba's educational thinking was the ability to see the forest for the trees, pointing to her capability to discriminate between the essential and the non-essential or the important and the unimportant. She was never misled by the outside luster of an idea even when facing the most advanced educational innovations of the day, and she always scrutinized them for their educational purpose or value. An episode described in the commemorative article by A.L. Costa and R.A. Loveall (2002:61) is good evidence of this aspect of Taba's thinking. Taba when visiting a prestigious American university in the 1960s was led to a computer centre where a huge mainframe computer was used for developing one of the first teaching machines. Her judgment on the value of this enterprise was fast and rather disappointing: 'Million-dollar machine, ten cent idea'

According to Joyce and Weil (2000:131), Taba built her approach around three assumptions:

1. Thinking can be taught (through engaging students in practice, in particular inductive reasoning).
2. Thinking is an active transaction between the individual and data. This relies on earlier theories, e.g. Bruner's concept attainment, an important component of concept learning
3. Processes of thought evolve by a sequence that is "lawful", somewhat in the sense of mastery learning

2.2.2.4 Lawrence Stenhouse (1926 – 1952)

Lawrence Stenhouse **(**29 March 1926-1982) was a British educational thinker who sought to promote an active role for teachers in educational research and curriculum development. He was a founder member of the Centre for Applied Research in

Education (CARE) at the University of East Anglia. Stenhouse was particularly influential during the 1960s and 1970s. He helped to develop innovative class work for secondary school pupils through the Schools Council Humanities Project. Stenhouse thinks that the purpose of education is not to achieve certain objectives without knowing why, but to provide access to knowledge. Teaching provides an understanding of what must be learned. Stenhouse's ideas asserted that if schools are to exercise their freedoms, teachers will need to rediscover how to 'make' curriculum, with their students. Stenhouse work informs the arguments made for: (i) knowledge to be defined as concepts, principles, fundamental processes, and not just facts and information; (ii) acknowledgement of the interaction between subject knowledge and individual development in learning; (iii) the importance of oracy across the curriculum, and especially the role of talk in cognitive development; (iv) clarity about aims and purposes as the basis for ensuring curriculum coherence; (v) the expectation that all students can be taught, and are capable of learning, intellectually challenging material; (vi) assessment to be better aligned with curriculum. Stenhouse's process model provides both a principled rationale and a practical approach for the 'curriculum workers' today (Mary James, http://www.bera.ac.uk/bera2012/pdf/BERA2012_0029.pdf).

The primary theme in Stenhouse's work was the idea of emancipation both of students and teachers through knowledge. He became aware of his ability to understand the world around him by considering the knowledge he possessed, exercising his personal judgment, and using a various modes of inquiry. Stenhouse was encouraged to use knowledge to make sense of his world so that he could become an authority in his own right. Stenhouse (1985a:77) explained his opposition to objectives-based curriculum stating, "Knowledge cannot be reduced to behaviors. In particular it cannot be expressed in terms of pre-specified performances for it is the function of knowledge, as opposed to mere agglomerations of facts, that it does not determine behavior but liberates it"

Stenhouse (1983a:214) perception was that both researchers and teachers had to be involved in the research process if there were to be any relationship between educational practice and educational theory, maintaining that, ". . .practitioners [are] in a position to send theorists back to their drawing boards with confidence. That

authority should rest with teachers". Stenhouse as cited in Rudduck,(1988:35) emphasized that “It is teachers who, in the end, will change the world of the classroom by understanding it”. Stenhouse as cited in Rudduck, (1988:36) continue to encourage teachers to submit their work for publication or presentation because he believed that action research conducted by teachers in the context of real classrooms can substantially contribute to the educational knowledge base. He was discouraged, however, by the trend of many journals to solicit research by teachers but then only publish collaborative research conducted by academic researchers and teachers that is so full of academic jargon that fails to be useful to most teachers. Academic researchers are continuing to use jargon to maintain their positions of authority in educational research and he saw this as the teacher being brought into the world of the academic researchers “on a temporary ticket” and this kind of unnatural collaboration, he stated did not serve teachers or help them study their teaching in meaningful or sustainable ways. Stenhouse appealed to teachers to use academic research to supplement and enrich their judgment, stating that teachers not researchers were in the position to critically appraise academic research. This appeal was at the heart of Stenhouse’s concept of how education could best be served by research: academic researchers provided theory derived in the traditional academic (statistical) method and teachers tested that theory in the real world context of their classrooms.

2.2.2.5 John Dewey (1859 – 1952)

John Dewey (1859-1952) was an American psychologist, philosopher, educator, social critic and political activist. He was born in Burlington, Vermont, on 20 October 1859. Dewey has made arguably, the most significant contribution to the development of educational thinking in the twentieth century. Dewey’s philosophical pragmatism, concern with interaction, reflection and experience, and interest in community and democracy, were brought together to form a highly suggestive educative form. John Dewey’s significance for informal educators lies in a number of areas. First, his belief that education must engage with and enlarge experience has continued to be a significant strand in informal education practice. Secondly and linked to this, Dewey’s exploration of thinking and reflection and the associated role of educators has continued to be an inspiration. Thirdly his concern with interaction

and environments for learning provides a continuing framework for practice. Lastly, his passion for democracy, for educating so that all may share in a common life, provides a strong rationale for practice in the associational settings in which informal educators work (John Dewey, http://infed.org/mobi/john-dewey-on-education-experience-and-community/).

John Dewey was a leading proponent of the American school of thought known as pragmatism, a view that rejected the dualistic epistemology and metaphysics of modern philosophy in favor of a naturalistic approach that viewed knowledge as arising from an active adaptation of the human organism to its environment. He developed a broad body of work encompassing virtually all of the main areas of philosophical concern in his day. The central focus of Dewey's philosophical interests throughout his career was what has been traditionally called "epistemology," or the "theory of knowledge."

Dewey's naturalistic metaphysics first took shape in articles that he wrote during the decade after the publication of *Studies in Logical Theory,* a period when he was attempting to elucidate the implications of instrumentalism. Dewey asserts that things experienced empirically "are what they are experienced as." Our experience of the world is constituted by our interrelationship with it, a relationship that is imbued with practical import. Dewey stresses the point that sensations, hypotheses, ideas, etc., come into play to mediate our encounter with the world only in the context of active inquiry. Dewey begins with the observation that the world as we experience it both individually and collectively is an admixture of the precarious, the transitory and contingent aspect of things, and the stable, the patterned regularity of natural processes that allows for prediction and human intervention. Honest metaphysical description must take into account both of these elements of experience.

Dewey's mature thought in ethics and social theory is not only intimately linked to the theory of knowledge in its founding conceptual framework and naturalistic standpoint, but also complementary to it in its emphasis on the social dimension of inquiry both in its processes and its consequences. Dewey, throughout his ethical and social writings, stressed the need for an open-ended, flexible, and experimental approach to problems of practice aimed at the determination of the conditions for the

attainment of human goods and a critical examination of the consequences of means adopted to promote them, an approach that he called the “method of intelligence.” In large part, then, Dewey’s ideas in ethics and social theory were programmatic rather than substantive, defining the direction that he believed human thought and action must take in order to identify the conditions that promote the human good in its fullest sense, rather than specifying particular formulae or principles for individual and social action. Dewey rejected the notion that a child’s education should be viewed as merely a preparation for civil life, during which disjoint facts and ideas are conveyed by the teacher and memorized by the student only to be utilized later on. The school should rather be viewed as an extension of civil society and continuous with it, and the student encouraged to operate as a member of a community, actively pursuing interests in cooperation with others. It is by a process of self-directed learning, guided by the cultural resources provided by teachers that Dewey believed a child is best prepared for the demands of responsible membership within the democratic community (John Dewey, http://www.iep.utm.edu/dewey/)

2.2.2.6 Jerome Seymour Bruner (Born October 1, 1915)

Jerome Seymour Bruner is one of the best known and influential psychologists of the twentieth century. He was one of the key figures in the so called ‘cognitive revolution’ but it is the field of education that his influence has been especially felt (Bruner J., 1996: ix). Children as they grow must acquire a way of representing the "recurrent regularities" in their environment and to Bruner important outcomes of learning include not just the concepts, categories, and problem-solving procedures invented previously by the culture, but also the ability to "invent" these things for oneself. Cognitive growth involves an interaction between basic human capabilities and "culturally invented technologies that serve as amplifiers of these capabilities." The outcome of cognitive development is thinking. The intelligent mind creates from experience "generic coding systems that permit one to go beyond the data to new and possibly fruitful predictions".

The aim of education should be to create autonomous learners. Bruner (1966:72) asserts that to instruct someone is not a matter of getting him to commit results to

mind. Rather, it is to teach him to participate in the process that makes possible the establishment of knowledge. We teach a subject not to produce little living libraries on that subject, but rather to get a student to think mathematically for himself, to consider matters as an historian does, to take part in the process of knowledge-getting. Knowing is a process not a product. Bruner developed 3 principals of instructional design:

1. Instruction must be concerned with the experiences and contexts that make the student willing and able to learn (readiness).
2. Instruction must be structured so that it can be easily grasped by the student (spiral organization).
3. Instruction should be designed to facilitate extrapolation and or fill in the gaps (going beyond the information given).

Bruner (1960:12) states that a theory of instruction should address four major aspects: (1) predisposition towards learning, (2) the ways in which a body of knowledge can be structured so that it can be most readily grasped by the learner, (3) the most effective sequences in which to present material, and (4) the nature and pacing of rewards and punishments. Good methods for structuring knowledge should result in simplifying, generating new propositions, and increasing the manipulation of information. He continued to give modes of representation of intellectual development as ways in which information or knowledge are stored and encoded in memory. This are: Enactive this appears from birth to 1 year of a child life. It involves encoding action based information and storing it in the memory. The child represents past events through motor responses. This is not just limited to children but also adults can perform a variety of motor tasks (typing, sewing a shirt, operating a lawn mower) that they would find difficult to describe in iconic (picture) or symbolic (word) form. Iconic this appears in children from 1 to 6 years. Information is stored visually in the form of images (a mental picture in the mind's eye). This may explain why, when learning a new subject, it is often helpful to have diagrams or illustrations to accompany verbal information. Symbolic this develops from 7 years on wards. Information is stored in the form of a code or symbol, such as language. This is the most adaptable form of representation, for actions & images have a fixed relation to that which they represent. This is the symbolic stage where knowledge is stored

primarily as words, mathematical symbols, or in other symbol systems. Bruner's constructivist theory suggests it is effective when faced with new material to follow a progression from enactive to iconic to symbolic representation; this holds true even for adult learners.

2.2.2.7 Benjamin Bloom (1913 – 1999)

Benjamin S Bloom was born on 21 February 1913 in Lansford, Pennsylvania, and died on 13 September 1999. He attained degrees at Pennsylvania State University in 1935. He joined the Department of Education at the University of Chicago in 1940 and attained a PhD in Education in 1942, during which time he specialized in examining. Here he met his mentor Ralph Tyler with whom he first began to develop his ideas for developing a system (or 'taxonomy') of specifications to enable educational training and learning objectives to be planned and measured properly - improving the effectiveness of developing 'mastery' instead of simply transferring facts for mindless recall. Taxonomy means 'a set of classification principles', or 'structure', and Domain simply means 'category'. Bloom and his colleagues were academics, looking at learning as a behavioral science.

Bloom's (and his colleagues') initial attention was focused on the “Cognitive Domain”, which was the first published part of Bloom's Taxonomy, featured in the publication: 'Taxonomy Of Educational Objectives: Handbook 1, The Cognitive Domain' (Bloom, Engelhart, Furst, Hill, Krathwohl, 1956). The 'Taxonomy Of Educational Objectives: Handbook II, The Affective Domain' (Bloom, Masia, Krathwohl) as the title implies, deals with the detail of the second domain, the “Affective Domain”, and was published in 1964. Bloom's Taxonomy has therefore since 1956 provided a basis for ideas which have been used (and developed) around the world by academics, educators, teachers and trainers, for the preparation of learning evaluation materials

Bloom's Taxonomy model is in three parts, or 'overlapping domains' namely;

1. Cognitive domain (intellectual capability, i.e., knowledge, or 'think')
2. Affective domain (feelings, emotions and behavior, i.e., attitude, or 'feel')
3. Psychomotor domain (manual and physical skills, i.e., skills, or 'do')

The Bloom's taxonomy domains can be ordered into six increasingly complex levels and each subsequent level depends upon the student's ability to perform at the level or levels that precede it. This is shown in table 2.2

Table 2.2 shows the taxonomy of educational objectives, comprised of six levels

Level	Keywords
1. Knowledge	• Observes and recalls information • Arrange, define, describe, match, order, memorize, name, note, repeat, Who? What? When? Where? questions.
2. Comprehension	• Understands information, grasps meaning • Alter, change, classify, define in you own words, discuss, explain, extend, give examples, translate, etc.
3. Application	• Uses information, uses methods • Apply, calculate, compute, contruct, operate, practice, how many? Which? What is? Write an example question.
4. Analysis	• Sees pattens, organizes parts • Analyze, appraise, categorize, compare, conclude, contrast, critize, diagnose, differentiate, etc. Why?
5. Synthesis	• Uses old ideas to create new ones • Assemble, compile, compose, create, improve, synthesize, what if, etc. How can we improve? What would happen if? How can we solve? Questions.
6. Evaluation	• Compare and discriminate ideas • Appraise, argue, choose, certify, criticize, decide, deduce,

	defend, discriminate, estimate, evaluate, recommend, etc.

Source: Benjamin S. Bloom Taxonomy of educational objectives.
Published by Allyn and Bacon, Boston, MA. Copyright (c) 1984 by Pearson Education.

Table 2.3 shows the Taxonomy of educational objectives of Bloom and educational activities

Level	Activities
1. Knowledge	Memorizing information, defining techniques, etc.
2. Comprehension	Understanding an article with the objective of providing a summary
3. Application	Using the knowledge of the learner to apply it to concrete situations (real life)
4. Analysis	Asking a learner to dissect a subject, explain how everything fits together
5. Synthesis	Placing the pieces of a subject back together but in a novel way by gathering information from several sources
6. Evaluation	Judging the value of a subject for a specific purpose

Taxonomy of educational objectives of Bloom and educational activities

Bloom taxonomy continue to be useful and very relevant to the planning and design of: school, college and university education, adult and corporate training courses, teaching and lesson plans, and learning materials; they also serve as a template for the evaluation of: training, teaching, learning and development, within every aspect of education and industry. Bloom's Taxonomy provides an excellent structure for planning, designing, assessing and evaluating training and learning effectiveness (Benjamin S Bloom, http://www.businessballs.com/bloomstaxonomyoflearningdomains.htm)

The Article 4 of Jomtien Declaration states that the focus of basic education must therefore be on actual learning acquisition and outcome, rather exclusively learning upon enrollment, continued participation in organized programmes and completion of certification requirements. Active and participatory approaches are particularly valuable in assuring learning acquisition and allowing learners to reach their fullest potential (UNESCO, 1990:5). This could be achieved through educational

programmes that have a focus to improve and apply systems of assessing learning achievements. This development represented a shift in the assessment quality from emphasis on education inputs to outcomes. The Dakar Framework for action which was produced at the end of a 10 year follow up to the Jomtien Declaration emphasized the importance of learning outcomes. Among its list of seven agreed goals was by 2015, to improve all aspects of quality of education so that recognized and measurable outcomes are achieved by all especially in Literacy, numeracy and essential life skills (UNESCO, 2000:v,7)

With time assessment was used as a tool to support learning and enhance teaching. More scholars like Cumming and Maxwell (as cited in Clare & Cumming, 2009:91) have observed that in the past two decades studies on assessment have shown an increasing interest on how classroom assessment can be used to improve learning experiences and outcomes of students, more especially the emphasis on education assessment reform which has been increasingly meaningful, contextualized and having purposeful activities that focus on demonstrations of what students know and can achieve, rather than on students shortfalls in knowledge and failure to achieve.

Educational Assessment approaches have been in place for decades and have served a number of purposes well. But the world has changed substantially since those approaches were first developed, and the foundations on which they were built may not support the newer purposes to which assessment may be put. Today measurements of learning bring new assumptions into play and offer the potential richer and have coherent set of assessment practices (NRC, 2001:17). Current assessment practices are the accumulative products of theories of learning and models of measurements that were developed to fulfill the social and educational needs of a different time, although the core concepts of prior theories and model are still useful for certain purposes, they need to be supplanted to deal with newer assessment needs (NRC, 2001:26). It is only a slight exaggeration to describe the test theory that dominates education measurements today as the application of 20th Century statistics.

The changes in the nature of work, globalization, the information revolution and the increasing social nature of contemporary challenges also suggest different priorities

for education system and these in turn require different priorities for assessment practices. The agenda for assessment now should be based on the impact of student learning. The assessment therefore in the 21st century should be characterized by much more departure from the traditional as written test to just in time on line assignments and on demand, personalized micro assessment (Clare & Cumming, 2009: vii). Information technologies are helping to remove some of the constraints that have limited assessment practice in the past. Assessment tasks no longer need to be confined to paper-and pencil formats, and the entire burden of classroom assessment no longer need to fall on the teacher. At the same time technology will not in and of itself improve educational assessment. Improved methods of assessment require a design process that connects the three elements of the assessment triangle (cognitive, observation and interpretation) to ensure that theory of cognition, the observations and the interpretation process work together to support the intended inferences (Pellegro, et.al., 2001:9)

2.3 Philosophical assumptions underpinning dominant theory and practice assessment

Often called the grand farther of curriculum design, Ralph W. Tyler (1902 – 1994) was heavily influenced by Edward Thorndike, John Dewey and the progressive Education Movement of the 1920's. Thorndike turned curriculum inquiry away from the relative values of different subjects to empirical studies of contemporary life (Tyler, 1986:37). Dewey promoted the idea of incorporating students' interests when designing learning objectives and activities (Tyler, 1986:37). Tyler targeted the students' emotions, feelings and beliefs as well as the intellect (Eakman, 1996:48). Progressive Education, Tyler noted, is "the idea that children's interests must be identified so that they can serve as the focus of educational attention" (Tyler 1996:10). Tyler continuous to say "Education is a process of changing the behavior pattern of people (Tyler 1949:5)

The dominant approaches of assessing and evaluating education today fit through the Ralph Tyler's (1902-1994) and scientific management theory lenses. While assessment theory and practice has a very long history dating from at least 2200

BC, this section draws on the work of Ralph Tyler and the scientific management theory. Notwithstanding the fact that Tyler's rationale has been criticized for being overtly managerial and linear in its position on the school curriculum, his work continues to influence many assessment practices. From its initiation in the early decades of the 19th and 20th century, the assessment and evaluation field looked to business's use of "scientific management" methods to rationalize American industry as the guiding principles for modernizing American education. For Tyler (1977), the school curriculum is "all learning, which is *planned and guided by the school*, whether or not it is carried on in classes, on the playground, or in other segments of the pupils' lives." Hailed as the "king of curriculum development and assessment", and a "godfather of behavioral objectives", Tyler's rationale, among others, conceived of school action as moving across a range of concerns that speaks to school purposes, the organization of experiences and the evaluation of experiences. His work was driven by and revolves around the following fundamental questions:

- What educational purposes should the school seek to attain?
- What educational experiences can be provided that is likely to attain these purposes?
- How can these educational experiences be effectively organized?
- How can we determine whether these purposes are being attained?

Tyler Ralph first coined the term evaluation describing it as a testing construct that moved away from pencil and paper memorization examinations and toward an evidence collection process dedicated to overarching teaching and learning objectives. He designed the structure of the school curriculum that was responsive to three central factors that represented the main elements of an educative experience as listed below:

(1) The nature of the learner (developmental factors, learner interests and needs, life experiences, etc.);

(2) The values and aims of society (democratizing principles, values and attitudes); and

(3) Knowledge of subject matter (what is believed to be worthy and usable knowledge). Tyler placed on linking objectives to experience (instruction) and evaluation (Ralph W. Tyler,

http://education.stateuniversity.com/pages/2517/Tyler-Ralph-W-1902-1994.html"). Tyler as cited in Meek, (1993:84) states that central to Tyler's Model is effectively organizing the learning activities. "Organization is seen as an important problem in curriculum development because it greatly influences the efficiency of instruction and the degree to which major educational changes are brought about in the learners". Meek, (1993:84) further believes that there are three major criteria required in building organized learning experience; Continuity, sequence and integration. Students need concrete experiences to which the readings are meaningfully connected (Tyler, 1949:39)

Tyler affirms that, "The process of evaluation is essentially the process of determining to what extent the educational objectives are actually being realized by the programme of curriculum and instruction (Tyler 1949:106). Furthermore he maintains that "curriculum planning is a continuous process and that the materials and procedures are developed, they are tried out, their results are appraised, their inadequacies identified and suggested improvements indicated (Tyler 1949:123). With his emphasis on the individual student, Tyler believes that all evaluation must be guided by purpose and be sensitive to the uniqueness of the individual being assessed (Horowitz, 1995:68)

Benjamin Bloom in 1984 published a summary of research on the impact of mastery learning models when he compared standard whole-class instruction (the control condition) with two experimental interventions–a mastery learning environment (where students aspire to achieving specific learning standards). This revealed unprecedented gains in achievement for students in the experimental treatments when compared to the control groups. He then concluded that a major portion of the entire effect was attributed to the effective use of classroom assessment. (Stiggins, Richard, http://education.stateuniversity.com/pages/1770/Assessment.html)

According to Terry Crooks, basing on the available research concluded that classroom assessment can have a major impact on student learning when it:

- Places great emphasis on understanding, not just recognition or recall of knowledge; as well as on the ability to transfer learning to new situations and other patterns of reasoning
- Is used formatively to help students learn, and not just summative for the assignment of a grade
- Yields feedback that helps students see their growth or progress while they are learning, thereby maintaining the value of the feedback for students
- Relies on student interaction in ways that enhance the development of self-evaluation skills· Reflects carefully articulated achievement expectations that are set high, but attainable, so as to maximize students' confidence that they can succeed if they try and to prevent them from giving up in hopelessness
- Consolidates learning by providing regular opportunities for practice with descriptive, not judgmental, feedback
- Relies on a broad range of modes of assessment aligned appropriately with the diversity of achievement expectations valued in most classrooms
- Covers all valued achievement expectations and does not reduce the classroom to focus only on that which is easily assessed (Terry Crooks, http://education.stateuniversity.com/pages/1770/Assessment.html)

The assessment instruments must be consistent with the educational expectations or goals a country has adopted through its national curriculum. These goals must be expressed with sufficient clarity so that the cognitive and disciplinary skills attained by the students can be identified as objectively as possible by all the evaluators in the system who include; teachers, principals, supervisors, and professionals from outside the school. The methodology and coverage of the assessments must be consistent with their purposes and uses; to this end, they should be validated socially, as well as technically. Decision makers should carefully determine the aim and subjects of the assessments that is, if their goal is to assess the system, the institutions, or the individual actors especially the teachers and students (Ferrer, Guillermo, 2006:10)

According to Pellegro, et.al. (2001:20) Educational assessment is based on asset of scientific and philosophical assumptions that;

- Every assessment is grounded in a conception or theory about how people learn, what they know and how knowledge and understanding progress over time
- Each assessment embodies certain assumptions about which kind of observations, or tasks, are most likely to elicit demonstration of important knowledge and skills from students
- Every assessment is premised on certain assumptions about how best to interpret the evidence from the observations to draw meaningful inferences about what students know and can do

Educational assessment seeks to determine how well students are learning and is an integral part of the quest for improved education. It provides feedback to students, educators, parents, policy makers and the public about the effectiveness of educational services (NRC, 2001:1). Berry (2008b:9) focuses on the use of assessment to support learning rather than to document achievement. In his argument he emphasizes assessment for learning as the best approach that enables and makes learners more self directed in their own learning through self – peer assessment. Students learn how to monitor their own learning, develop the ability to judge and evaluate their own work and the work of their peer, and think what to do next.

The purpose of assessment determines priorities and the context of use imposes constraints on the design. It is therefore essential to recognize that one type of assessment does not fit all and often when a single assessment is used for multiple purposes, quality of results is affected. NRC (2001:2) confirms this when it states that “the more purposes a single assessment aims to serve, the more each purpose will be compromised”. Every assessment regardless of its purpose, rest on three pillars: a model of how students represent knowledge and develop competence in the subject domain, tasks or situations that allow one to observe students’

performance, and an interpretation method for drawing inferences from the performance evidence thus obtained.

Griffin (as cited by Clare and Cumming, 2009:191) describes the fundamental role of assessment that “It is only possible to use directly observable behavior because these act as posters or indicators to an underpinning generalized learning. Humans can provide evidence in the form of what they ‘write’, ‘make’, ‘do’ or ‘say’ and it is these four observable actions that all learning is inferred” and the basic role of assessment is to help interpret observation and infer learning. What is needed today are assessment that help the students learn and succeed in school by making as clear as possible the nature of their accomplishments and the progress of their learning.

According to Black and William as cited by Pellegro, et.al (2001:38) argue that the development of good classroom assessment places significant demands on the teacher. This means that teachers should have tools and other support if they are to implement high quality assessments efficiently and use the resulting information effectively. Clare and Cumming (2009:40) emphasize the professional role of teachers and their responsibility for student assessment which they say fall along a time continuum and assessment activities occur prior, during and after instruction as follows;

- Assessment activities prior to instruction – Provide the teacher information about individual differences among students as well as an understanding of the background or prior knowledge of the class as a whole. These activities provide the bases for planning instruction;
- Assessment activities during instruction – provide information about the overall progress of the class, as well as, specific information about individual students. These provides basis for monitoring progress during learning; and
- Assessment activities after instruction – provides information for making decisions about individual students, planning teaching, developing curriculum and school improvement.

Ferrer, Guillermo, (2006:12) continue to state that the way in which test results are reported should be consistent with the goals of the assessment and should take into account users' specific information needs. For example:

- If the aim is to provide information on student achievement of certain subjects in recently implemented areas of the curriculum so that schools can make adjustments where they detect difficulties, it is of little use to report results in aggregate form with a gross percentage of achievement for the whole of each curricular area or subject matter.

- If the aim is to encourage parents to become more involved in their children's education, they have to be given information not only on the level of performance their children have achieved in certain academic capacities but also a description and examples of the kind of performance that is expected at their grade level.
- If the aim is to make judgments about the quality of schools in terms of students' academic achievement and not to use the results to compare or rank institutions or geographic areas results must be reported so as to distinguish the economic and socio cultural levels of the students that the schools serve, as well as the schools' infrastructure, facilities, and human resources. It is thus possible to compare each school's level of achievement with that of all schools operating under the same conditions, thereby obviating the risk that unfair conclusions might be drawn about the quality of each institution.
- If the assessments follow a "value-added" model that is, appraising students' academic progress relative to themselves over time, and/or relative to students of a similar socioeconomic level data can be provided and fairer inferences drawn about each school's capacity to offer adequate educational opportunities.

If assessment efforts are geared to mobilizing public opinion and social pressure for educational improvement, good communication strategies are vital. The effectiveness of such strategies depends not only on a system's capacity to reach

different audiences through mass distribution of publications, but also on the degree to which key actors and organizations of the educational community and civil society are involved in the assessment process. The primary function to be served by assessment is to improve students' learning. Knowing how to use types of assessment in promoting learning implies pedagogical knowledge on the part of the teacher. The critical feature in an assessment system in a teacher's knowledge of how to use an assessment method to address questions pertaining to academic learning

According to ARG (2011: 26) assessment involves gathering, reflecting on and evaluating evidence of learning to enable teachers check on learners' progress. Teachers therefore need a range of assessment approaches to assess the different types of achievement across the curriculum. This range allows learners to demonstrate what they know, understand and can do. The range and variety of assessment approaches should take account of the relevance of contexts to learners' prior experiences, interests and aspirations and should link across learning where possible. It is essential that staff use evidence of learning from a broad range of contexts to check how a learner is progressing and that learning is secure. The evidence will be different depending upon the kind of learning being assessed, the learning activity and learners' preferences about how to show what they have learned. Evidence will come from day-to-day learning as well as from specific assessment tasks, activities, tests and examinations. Assessment needs to be planned as part of learning and teaching activities. In planning activities and experiences with learners, teachers need to:

- Consider and share the outcomes towards which learners are working
- Use examples that illustrate standards and expectations
- Agree success criteria through discussion with each other and with learners
- Design learning experiences and activities that are likely to challenge and motivate and give opportunities to learners to provide evidence that demonstrates their knowledge and understanding, skills, attributes and capabilities
- Plan so that learners can show their thinking and provide evidence of what they have learned in response to planned experiences

2.4 Classification of assessment;

Assessment is a vital tool in helping institutions determine if they are meeting the academic needs of all the students and preparing them to be successful in tomorrow's marketplace and society (Dunn, Mehrotra & Halonen, 2004:xiii). Teachers who provide the knowledge and skills play the pivotal role in carrying out assessment and Stiggins and Conklin (as cited in Smith and Cumming, 2009:1) confirm the teachers function when they indicate that typical teachers spend between one third and one half of their class time engaged in one or another type of assessment or learning evaluation activity. Gary, (1997:40) who continues to see the primary purpose of assessment as to support and improve student learning links assessment to education process and seeks the welfare of students, therefore, requires a significant portion of teachers' professional time and energy. Other publication (ARG, 2011: 23), continue to state that the central purpose of assessment is to support learning and this is best achieved by a combination of formative and summative assessment. This means assessing learning both in an ongoing way and by 'stepping back' at regular intervals to take stock of learners' progress and achievements. The terms 'formative' and 'summative' do not describe a type or form of assessment, but instead describe how assessments are used. Evidence and feedback from any assessment can be used formatively to inform planning for improvements in learning, as well as contributing to periodic summaries of progress and achievement for reporting and monitoring.

Classifying Assessments

Classroom assessment always involves groups or individual or both and may be formal or informal. Table 2.4 below shows the matrix classifying assessment options;

Table 2.4: Matrix for classifying assessment options

	Formal instruments and activities: option	*Informal instruments and activities: option*
Group Assessment	1.Text embedded tests	1.Oral questions

	2.Curriculum embedded tests 3.Commercial criterion tests 4.Commercial normed tests 5.Rating scales 6.Performance tests 7.Questionnares	2.Writing samples 3.Seat work 4.Home work 5.Paper-pencil test 6.Rating scales 7.Exhibitions 8.Portfolios 9.Demonstrations 10.Peer assessment 11.Interviews
Individual Assessment	1.Performance assessment 2.Standardized norm-reference test 3.Standardized criterion-referenced tests 4.Curriculum embedded tests	1.Observation 2.Oral questioning 3.Writing sample 4.Home work 5.Sheet work 6.Paper-pencil work 7.Portfolios 8.Interviews 9.Self assessment 10.IEP monitoring 11.Error analysis

Adapted from Gary, (1997:38)

According to Gary, (1997:40) the formal instruments are those which are commercially prepared instruments and activities that are standardized in terms of content and assessment procedures. There is inclusion of technical information that provides insight for interpreting results and making decisions. The informal instruments are those instruments and activities developed by classroom teacher. They are not standardized and they address specific instructional questions relative to specific child or class as a whole. Frameworks have been developed to help teachers identify and assess different kinds of academic learning and one which is most frequently used is the Blooms taxonomy of the cognitive domain. The Blooms approach is used by the commercial producers of assessment material as well as classroom teachers engaged in developing informal assessment option. According to Bloom's frame work Garry (1997:46) thinking is divided into six levels; Knowledge, Comprehension, Analysis Application, Synthesis and Evaluation. The framework is arranged in manner that Knowledge is the simplest level of thinking and the most complex being evaluation

There are two main classifications of assessment, the formative and summative assessments.

2.4.1 Formative assessment: This classification of assessment is conducted during teaching or instruction with the intention to improve the learning process. The information you gain from formative assessment may make you to re-think your teaching plans for your group and changes can be made to improve learning before it's too late (Lamprianou and Anthanasou, (2009:29). Other scholars, Mansell, et.al (2009:9) continue to state that formative assessment is the use of day-to-day, often informal assessment to explore pupils understanding so that the teacher can decide how to help them develop that understanding. Black and William, (as cited in Dunn, et.al, 2004:127) suggest that formative assessment is an integral aspect of classroom work and that there is ample evidence that developing assessment method can raise achievement standards. They continue to elaborate the importance of formative assessment as; empowering students to take appropriate action, allowing instructors to adjust what they are doing in a timely fashion, helping students to discover what they do and do not know and keeping differences in faculty and student perceptions of learning from interfering from learning. On the other hand

Pellegro et.al (2001:38) maintains that formative assessment provides specific information about the students' strengths and difficulties with learning. Teachers can use information from this classification of assessment to adapt their instruction to meet students' needs which may vary from one student to another and students can use this information to determine which skills they need to study further. ARG, (2011: 23) continue to assert that as part of ongoing learning and teaching, teachers assess constantly as part of daily learning and teaching through watching and listening to learners, looking at what they write and make and by considering how they answer questions, teachers get to know their learners well, build up a profile of their progress, strengths and needs and involve them in planning what they need to learn next. This ongoing assessment is about establishing where students are in their learning, where they are going and how best to get there. Teachers use the evidence about learning to provide useful feedback to learners, to adapt learning and teaching approaches to meet their needs and to revisit areas where learning is not yet secure.

2.4.2 Summative assessment: This classification of assessment is more formal summing up of pupils' progress that can be used for purposes ranging from providing information to parents to certification as part of formal examination course (Lamprianou & Anthanasou, 2009:29). This helps, as argued by NRC (2001:39) to determine whether a student has attained a certain level of competency after completion of a particular phase of education. Furthermore, from time to time, teachers also take stock of their learners' progress and achievements in order to be able to plan ahead and to record and report on progress. This is vital in ensuring that learners' progress is on track and that action is being taken to address any problems at the earliest possible point. This involves teachers in evaluating a range of evidence produced over a period of time to provide a summary of progress and achievement, including for qualifications and awards (ARG, 2011: 24).

2.5 Characteristic features of assessment.

Good assessment information provides accurate estimates of students' performance and enables teachers or other decision makers to make appropriate decisions. The

assessment must measure what it is intended to measure and should permit appropriate generalization about students' skills and ability, measurement experts agree that test validity is tied to the purposes for which an assessment is used, therefore evidence of validity needs to be gathered for each purpose for which an assessment is used and the second characteristics of good assessment information is its consistency, or variability. Other characteristics of good assessment for classroom purposes according to (Assessment, www.edtech.vt.edu/edtech/id/assess/assess.html) include;

- The content of the tests (the knowledge and skills assessed) should match the teachers' educational objectives and instructional emphasis;
- The test item should represent the full range of knowledge and skills that are primary target of information;
- Expectation of students' performance should be clear; and
- The assessment should be free of extraneous factors which unnecessarily confuse or cue students' responses

Rationale for using assessments according to NRC (2001:17) include;

- Recent developments in society and technology are transforming people's ideas about the competencies students should develop. At the same time, education policy makers are attempting to respond too many of the social changes by redefining what all students should learn. These trends have found implications for assessment.
- Existing assessments are the product of prior theories of learning and measurement. While adherence to these theories has contributed to the enduring strengths of these assessments. It also contributed to some of their limitations and impended progress in assessment design.
- Alternative conceptions of learning and measurement now exist that offer the possibility to establish new foundations for enhanced assessment practices that can better support learning.

Mansell et.al (2009:8) listed the uses of assessment by clustering them into three broad categories as:

1. The use of assessment to help the help build the students understanding within day-to-day lessons;
2. The use of assessment to provide information on students achievement to those on the outside of the student-teacher relationship: to parents (on basis of in-class judgments by teachers, and test and examination results) and to further and higher education institutions and employers (through tests and examinations results); and
3. The use of assessment data to hold individual and institution to account, including through the publication of results which encourage outsiders to make judgments on the quality of those being held to account.

It should be noted that assessment can often be used for both formative and summative purposes. Formative and Summative are not labels for different types or forms of assessment but describe how assessments are used.

Assessment is of little use unless it results in improvements in students' knowledge and skills and assessment tasks will not be done if sufficient resources are not available (Dunn et.al, 2004:59). To improve on students' assessment, The American Association for higher Education (AAHE) (1996:126) suggested 9 principles of good practice for assessing students learning as;

1. The assessment of student learning begins with educational values;
2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time;
3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes;
4. Assessment requires attention to outcomes but also an equally to the experiences that lead to those outcomes;
5. Assessment works best when it is ongoing not episodic;
6. Assessment fosters wider improvement when representatives from across the educational community are involved;
7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about;

8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change; and
9. Through assessment, educators meet responsibilities to students and to the public.

The reasons why assessment is done vary across many groups of people within the educational community. According to Herman and Knuth (http://methodenpool.uni-koeln.de/portfolio/), in what does research say about assessment, state the purpose of assessment among the policy makers, schools, teachers, parents and students. They say, policymakers use assessment to set standards, focus on goals, monitor the quality of education, reward/sanction various practices, formulate policies, direct resources including personnel and money and determine effects of tests. The Administrators and school use assessment to Identify program strengths and weaknesses, designate program priorities, assess alternatives, plan and improve programs. The Teachers and administrators also use assessment to perform individual diagnosis and prescription, monitor student progress, carry out curriculum evaluation and refinement, provide mastery/promotion/grading and other feedback, motivate students and determine grades. The Parents and students on the other hand use assessment to assess student strengths and weaknesses, determine school accountability and make informed educational and career decisions.

In the background of the above, the fundamental aspect of assessment is not about pieces of paper or exams or marks or grades or intricate scoring systems; assessment is really about the question of how to use certain tasks or events to prove or establish that learning has occurred, that someone is able to do something or knows something, or even to provide information to evaluate our own teaching effectiveness and improve on teaching methods. Assessment is evidenced based practice of the teaching profession. Modern education systems are now centered on various forms of assessment and it's important for teachers to be familiar with educational assessments.

2.6 Assessment models

It is noteworthy mentioning that quite often assessment and evaluation are interchangeably used. Patton, (1997:23) defines evaluation as the “systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming.” However, it is critical to determine the merits and the worth of the aspects of curriculum. Hence, various scholars have proposed a significant number of curriculum assessment/evaluation models. Although there is no agreed definitive list of principles of assessment practice, a useful set of models for any teacher engaged in assessment and evaluation practice could be adopted. This section explores these models. In this study the terms approaches, models, and metaphors are used as synonyms.

2.6.1 Tyler’s Objectives-Centered Model

Tyler’s model which became the basis for many other models of instruction (Tyler, 1949:1) became one of the best-known technical-scientific approaches to curriculum and instruction (Ornstein & Hunkins, 2009:12) consisted of four parts:

1. Defining objectives of learning experiences:

- Leaning objectives should be defined from the students, society, and the subject matter.
- Starting with broad, general objectives; then considering the psychology of learning and the school philosophy, resulting in specific, defined instructional objectives.

2. Develop learning activities to meet defined objectives:

- Consider the learner, their background, and abilities.
- Knowledge of learning theory and educational development.

3. Organizing learning activities to attain the desired objectives:

- Instruction is systematic.
- Connections and links between subject areas and learning experiences.

4. Evaluation and assessment of learning experiences:

- Continuous evaluation of learners to evaluate effectiveness of instruction.
- Assessment of instruction to determine necessary change.

Tyler as cited in Horowitz, (1995:70) assert that the process of assessment is critical to Tyler's Model and begins with the objectives of the education programme "the first question always is what is the purpose of assessment – What do you want it for?

Tyler as cited in Meek, (1993:84) states that central to Tyler's Model is effectively organizing the learning activities. "Organization is seen as an important problem in curriculum development because it greatly influences the efficiency of instruction and the degree to which major educational changes are brought about in the learners". Meek, (1993:84) further believes that there are three major criteria required in building organized learning experience; Continuity, sequence and integration. Students need concrete experiences to which the readings are meaningfully connected (Tyler, 1949:39)

Tyler affirms that, "The process of evaluation is essentially the process of determining to what extent the educational objectives is actually being realized by the programme of curriculum and instruction (Tyler 1949:106). Furthermore he maintains that "curriculum planning is a continuous process and that the materials and procedures are developed, they are tried out, their results are appraised, their inadequacies identified and suggested improvements indicated (Tyler 1949:123). With his emphasis on the individual student, Tyler believes that all evaluation must be guided by purpose and be sensitive to the uniqueness of the individual being assessed (Horowitz, 1995:68). A person's interests largely determine what he attends to, and frequently what he does (Tyler 1949:79). Tyler continuous to say "Education is a process of changing the behaviour pattern of people (Tyler 1949:5).

The Tyler model approach according to Glatthorn, (1987: 273) is used in numerous large-scale assessment efforts, has moved rationally and systematically through seven related steps:

1. Begin with the behavioral objectives that have been previously determined. Those objectives should specify both the content of learning and the student behavior expected: “Demonstrate familiarity with dependable sources of information on questions relating to nutrition.”
2. Identify the situations that will give the student the opportunity to express the behaviour embodied in the objective and that evoke or encourage this behaviour. Thus, if you wish to assess oral language use, identify situations that evoke oral language.
3. Select, modify, or construct suitable evaluation instruments, and check the instruments for objectivity, reliability, and validity.
4. Use the instruments to obtain summarized or appraised results.
5. Compare the results obtained from several instruments before and after given periods in order to estimate the amount of change taking place.
6. Analyze the results in order to determine strengths and weaknesses of the curriculum and to identify possible explanations about the reason for this particular pattern of strengths and weaknesses.
7. Use the results to make the necessary modifications in the curriculum.

This model takes curriculum as a means of aiming toward an educational objective. Therefore, this model is also called means objective model. This model aimed student's developing behavior as their target of teaching. The Tyler model has several advantages: It is relatively easy to understand and apply. It is rational and systematic. It focuses attention on curricular strengths and weaknesses, rather than being concerned solely with the performance of individual students. It also emphasizes the importance of a continuing cycle of assessment, analysis, and improvement.

The Cons of the objective under Tyler’s straight line model has a behavioral orientation. Behavioral objectives have many advantages if applied to curriculum design, but they have some limitations on execution. Unacceptable verbs are as follow: to know, to understand, to really understand, to appreciate, to fully appreciate, to grasp the significance of, to enjoy, to believe and to have faith in. Building

behavioral objectives takes a very long time and a very tedious process. This model narrows the span of knowledge and skills which the students must actually be familiar with. The Pros include, notable for being the 1st model of objectives for teaching and examples of the acceptable verbs are: (Students will be able) to write, to recite, to identify, to differentiate, to solve, to construct, to list, to compare and to contrast.

2.6.2 Eisner's Connoisseurship Model

Connoisseurship is the art of appreciation. It can be displayed in any realm in which the character, import, or value of objects, situations, and performances is distributed and variable, including educational practice (Eisner 1998: 63). The word connoisseurship comes from the Latin *cognoscere*, to know (Eisner 1998: 6). It involves the ability to see, not merely to look. To do this we have to develop the ability to name and appreciate the different dimensions of situations and experiences, and the way they relate one to another.

Elliot Eisner (1979) drew from his background in aesthetics and art education in developing his "connoisseurship" model, an approach to evaluation that emphasizes qualitative appreciation. The Eisner model is built on two closely related constructs: connoisseurship and criticism. Connoisseurship, in Eisner's terms, is the art of appreciation recognizing and appreciating through perceptual memory, drawing from experience to appreciate what is significant. It is the ability both to perceive the particulars of educational life and to understand how those particulars form part of a classroom structure. Criticism, to Eisner, is the art of disclosing qualities of an entity that connoisseurship perceives. In such a disclosure, the educational critic is more likely to use what Eisner calls "no discursive" a language that is metaphorical, connotative, and symbolic. It uses linguistic forms to present, rather than represent, conception or feeling.

Educational criticism, in Eisner's formulation, has three aspects:

- The descriptive aspect is an attempt to characterize and portray the relevant qualities of educational life the rules, the regularities, the underlying architecture.

- The interpretive aspect uses ideas from the social sciences to explore meanings and develop alternative explanations to explicate social phenomena.
- The evaluative aspect makes judgments to improve the educational processes and provides grounds for the value choices made so that others might better disagree.

The chief contribution of the Eisner model is that it breaks sharply with the traditional scientific models and offers a radically different view of what evaluation might be. In doing so, it broadens the evaluator's perspective and enriches his or her repertoire by drawing from a rich tradition of artistic criticism. Its critics have faulted it for its lack of methodological rigor, although Eisner has attempted to refute such charges. Critics have also argued that use of the model requires a great deal of expertise, noting the seeming elitism implied in the term *connoisseurship* (Eisner, www.sagepub.com/upm-data/44333_12.pdf)

Elliot W. Eisner has deepened our appreciation of education in a number of areas in education which involve the exercise of artistry and the development of connoisseurship and criticism and has had much contribution to the debates around school reform. He noticed that most schools were failing to properly appreciate the significance of art and were offering an unnecessarily narrow and seriously unbalanced approach to education. Furthermore, he recognized that many of the then current conceptions of cognition because they lacked proper attention to artistic modes of thinking were inadequate (Uhrmacher 2001: 247). He observed that educators need to become something more than connoisseurs. They need to become critics. If connoisseurship is the art of appreciation, criticism is the art of disclosure. The task of the critic is to help us to see. Thus connoisseurship provides criticism with its subject matter. Connoisseurship is private, but criticism is public. Connoisseurs simply need to appreciate what they encounter. Critics, however, must render these qualities vivid by the artful use of critical disclosure. (Eisner 1985: 92). Uhrmacher (2001: 250) has helpfully adumbrated Elliot W. Eisner's contribution to school reform around three major poles:

- Advocating moving beyond technocratic and behaviouristic modes of thinking and for having a concern for 'expressive outcomes'.

- Calling to attend to fundamentals. Eisner has consistently warned against educational fads and fashion. He has criticized dominant paradigms and invited educators and others to ask questions such as ‘what is basic in education?’.

- Arguing that schools should help children create meaning from experience, and that this requires an education devoted to the senses, to meaning-making and the imagination. Eisner argues for a curriculum that fosters multiple ‘literacy’s’ in students (especially by looking to non-verbal modes of learning and expression) and a deepening of the ‘artistry’ of teachers.

In conclusion, Eisner’s Connoisseurship model provides the educational connoisseur possesses a critical eye that permits him or her to appreciate the characteristics and qualities of a phenomenon. The evaluator functions as a participant observer. These evaluations are subjective in nature and provide highly salient but anecdotal evidence to illustrate the judgements made. The members must have enough confidence in what they do to submit to the uncertainty of this type of evaluation and the credibility and expertise of the evaluator is of great importance. Evaluations are usually narrative reports that can be useful for administrators

2.6.3 Stake’s Responsive Model

Robert Stake (1975) made a major contribution to curriculum evaluation in his development of the responsive model, because the responsive model is based explicitly on the assumption that the concerns of the stakeholders those for whom the evaluation is done should be paramount in determining the evaluation issues.

Stake, as cited in Glatthorn, (1987:275) recommends an interactive and recursive evaluation process that embodies these steps:

- The evaluator meets with clients, staff, and audiences to gain a sense of their perspectives on and intentions regarding the evaluation.
- The evaluator draws on such discussions and the analysis of any documents to determine the scope of the evaluation project.

- The evaluator observes the program closely to get a sense of its operation and to note any unintended deviations from announced intents.
- The evaluator discovers the stated and real purposes of the project and the concerns that various audiences have about it and the evaluation.
- The evaluator identifies the issues and problems with which the evaluation should be concerned. For each issue and problem, the evaluator develops an evaluation design, specifying the kinds of data needed.
- The evaluator selects the means needed to acquire the data desired. Most often, the means will be human observers or judges.
- The evaluator implements the data collection procedures.
- The evaluator organizes the information into themes and prepares “portrayals” that communicate in natural ways the thematic reports. The portrayals may involve videotapes, artifacts, case studies, or other “faithful representations.”
- By again being sensitive to the concerns of the stakeholders, the evaluator decides which audiences require which reports and chooses formats most appropriate for given audiences.

Clearly, the chief advantage of the responsive model is its sensitivity to clients. By identifying their concerns and being sensitive to their values, by involving them closely throughout the evaluation, and by adapting the form of reports to meet their needs, the model, if effectively used, should result in evaluations of high utility to clients. The responsive model also has the virtue of flexibility: The evaluator is able to choose from a variety of methodologies once client concerns have been identified. Its chief weakness would seem to be its susceptibility to manipulation by clients, who in expressing their concerns might attempt to draw attention away from weaknesses they did not want exposed.

2.6.4 Bradley’s Effectiveness Model

Bradley’s (1985:141) provides 10 key indicators that can be used to measure the effectiveness of a developed curriculum. The table 2.5 shows the 10 indicators to appraise curriculum effectiveness in a school or district.

The table 2.5 Showing 10 indicators of effective curriculum development

Indicator	*Description*
Vertical curriculum continuity	The course of study reflects a K–12 format that enables teachers to have quick and constant access to what is being taught in the grade levels below and above them. Also, upward spiraling prevents undue or useless curricular repetition.
Horizontal curriculum continuity	The course of study developed provides content and objectives that are common to all classrooms of the same grade level. Also, daily lesson plans reflect a commonality for the same grade level.
Instruction based on curriculum	Lesson plans are derived from the course of study, and curriculum materials used are correlated with the content, objectives, and authentic tasks developed.
Curriculum priority	Philosophical and financial commitments are evident. Clerical assistance is provided and reasonable stipends are paid to teachers for work during the summer months. In addition, curriculum topics appear on school board agendas, administrative meeting agendas, and building-staff meeting agendas.
Broad involvement	Buildings in the district have teacher representatives on the curricular committees; elementary, middle level or junior high, and high school principals (or designees) are represented; and school board members are apprised of and approve the course of study.
Long-range planning	Each program in the district is included in the 5-year sequence and review cycle. Also, a philosophy of education and theory of curriculum permeate the entire school district.
Decision-making clarity	Controversies that occur during the development of a program center on the nature of the decision, and not on who makes the decision.
Positive human relations	Also, the initial thoughts about the curriculum come from teachers, principals, and the curriculum leader. All participating members are willing to risk disagreeing with anyone else; however, communication lines are not allowed to break down.
Theory-into-practice approach	The district philosophy, vision, mission, exit (graduation) outcomes, program philosophy, rationale statement, program goals, program objectives, learning outcomes, and authentic tasks are consistent and recognizable.
Planned change	Tangible evidence shows that the internal and external publics accept the developed program course of study for the school district. The process of developing a course of study for each program or discipline in a school district is no longer one of determining how to do it, but one of determining how to do it better.

SOURCE: Bradley, L. H., (1985:141)

The indicators for effective curriculum development represent working characteristics that any complex organization must have in order to be responsive and responsible to its clients. Further, the measurement can be oriented to meet the needs of any school district from large to small and it can focus on a specific evaluation of a district's curriculum area, such as reading, language arts, math, or any content area designated. The models of Tyler's objectives-centered model; Stufflebeam's context, input, process, product model; Scriven's goal-free model; Stake's responsive model, and Eisner's connoisseurship model give some support to Bradley's effectiveness model.

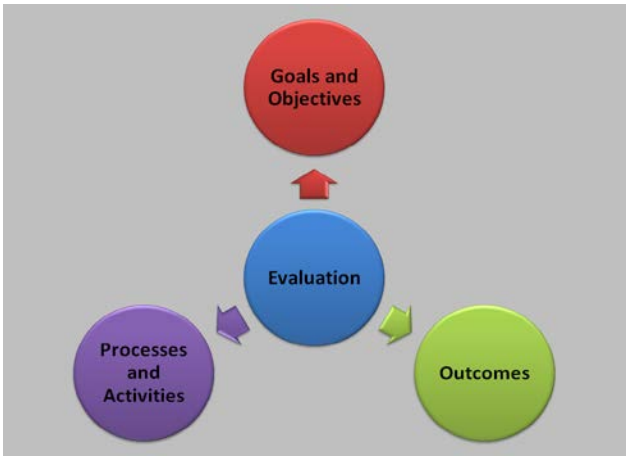
2.6.5 Scriven's Goal-Free Model

Scriven as cited in Payne, D.A. (1994:58) defines "models": A term loosely used to refer to a conception or approach or sometimes even a method of doing evaluation. Michael Scriven had two concepts of "Goal Based Evaluation" (GBE) and Goal Free Evaluation" (GFE). Goal Based Evaluation seeks to determine if the stated goals (and objectives) of the program or project have been achieved. He noted that the GBE approach can be flawed by false assumptions underlying the goals, changes in goals over time, and dealing with inconsistencies in them. On the other hand Goal Free Evaluation, has the 'purpose of finding out what the program is actually doing without being cued to what it is trying to do.

According to Scriven as cited in (www.sagepub.com/upm-data/44333_12.pdf) states that in conducting a goal-free evaluation, the evaluator functions as an unbiased observer who begins by generating a profile of needs for the group served by a given program then by using methods that are primarily qualitative in nature, the evaluator assesses the actual effects of the program. If a program has an effect that is responsive to one of the identified needs, then the program is perceived as useful. Scriven's main contribution, obviously, was to redirect the attention of evaluators and administrators to the importance of unintended effects a redirection that seems especially useful in education. Goal-free evaluation should be used to complement, not supplant, goal-based assessments. Used alone, it cannot provide sufficient information for the decision maker.

Scriven as cited in Guskey,(2000:46) stated that Goal Free Evaluation Model focuses on the actual outcomes of a program or activity, rather than only those goals that are identified. He believed that “goals of a particular program should not be taken as a given,” but examined and evaluated as well (figure 2.1). The model allows the technologist to identify and note outcomes that may not have been identified by program designers.

Figure 2.1 Showing Scriven’s Goal-Free Evaluation Model



Source: Scriven’s Goal-Free Evaluation Model (1972)

2.6.6 An Eclectic Approach

Eclecticism is a conceptual approach that does not hold rigidly to a single paradigm or set of assumptions, but instead draws upon multiple theories, styles, or ideas to gain complementary insights into a subject, or applies different theories in particular cases. It can sometimes seem inelegant or lacking in simplicity, and eclectics are sometimes criticized for lack of consistency in their thinking. Eclecticism was first recorded to have been practiced by a group of ancient Greek and Roman philosophers who attached themselves to no real system, but selected from existing philosophical beliefs those doctrines that seemed most reasonable to them. Out of this collected material they constructed their new system of philosophy. The term comes from the Greek (*eklektikos*), literally "choosing the best". Eclecticism is a conceptual approach that does not hold rigidly to a single paradigm or set of assumptions, but instead draws upon multiple theories, styles, or ideas to gain complementary insights into a subject, or applies different

theories in particular cases. It can sometimes seem inelegant or lacking in simplicity, and eclectics are sometimes criticized for lack of consistency in their thinking (http://en.wikipedia.org/wiki/Eclecticism#Origin). No philosophy is full-fledged to provide all aspects of education. To have an integral education for complete living, we have to synthesise all good ideas and principles with the best materials of all these philosophies to adopt an eclectic approach by harmonizing the conflicting ideologies and blend them together. Eclectic derives ideas (theories etc) from abroad and diverse range of sources. An eclectic thinker is one who selectively adopts ideas from different sources and combines them in the development of a new theory.

The strengths of using eclectic approach include; allows new ideas to be generated, does not restrict ideas to only one perspective and provides fuller understanding of behaviour as it considers all relevant factors and how they might combine. On the other hand the weaknesses of the eclectic approach are that they may lead to confusion because they are too many views expressed, it is difficult to judge the relative value of each perspective in an eclectic explanation and the different approaches are very different from each other and combining them to make one new theory is difficult. (http://educational-system.blogspot.com 2013/01/importance of eclectic-approach-in.html)

Conclusion

The conception of education today is very broad and that our educational thinking in its totality has been affected not by one single philosophical thought or tendency but by the cumulative experience of past generations in the field of education. Our educational ideals and practices may consequently be traced to various sources all of which have been harmoniously blended to determine the present-day educational principles and practices. Eclectic approach is broad and may include every kind of learning activity and saves learner from monotony. It is helpful in all kinds of skills in stimulating a creative environment and gives confidence to the learners. It also provides a chance to our common sense to mould and shape our method according to the circumstances and available materials of teaching aids. The approach can lack disciplined learning and allow for laziness. Without grabbing to one approach, curriculum choices and overall directions can be confusing and overwhelming.

2.6.7 Stufflebeam's Context-Input-Process-Product Model

In the 1950's and early 1960's there was a call in the United States for large-scale curriculum development projects to be funded by federal capital. Large amounts of money were poured into these social development programmes which raised the concern that much of it may be wasted if appropriate accountability requirements were not imposed. Evaluators were forced to 'shift their concern for educational evaluation from the realm of theory and supposition into the realm of practice and implementation' (Madaus, Stufflebeam, & Scriven, (1983:13). Evaluators approached the problem using traditional techniques and methodologies which were survey techniques, standardized tests, and the type of criterion-referenced tests. However; it was found that the existing tools and strategies employed by evaluators were largely inappropriate. Worthen and Sanders's as cited in Berk, (1981:4) observed that 'Despite the newly developed evaluation strategies, the methodology of evaluation remained fuzzy in the minds of most evaluators. Stufflebeam then realized that there should be an emphasis on 'making the methodology fit the needs of society, its institutions, and its citizens, rather than vice versa' (Madaus et al., (1983:18). The weaknesses in the Tyler model led several evaluation experts in the late 1960s and early 1970s to attack the Tyler model and to offer their own alternative model that was developed by a Phi Delta Kappa committee chaired by Daniel Stufflebeam in 1971. This model, context, input, process, product (CIPP), seemed to appeal to educational leaders because it emphasized the importance of producing evaluative data for decision making as the sole justification for evaluation (Glatthorn, 1987:274). As an alternative to the Tylers approach, Stufflebeam suggested that evaluation be redefined as 'the process of providing useful information for decision making' (Stufflebeam, (1983:120), because he felt that the best way to aid management and improvement of programmes would be to provide school administrators, project directors, and school staff with information they could use to decide on and bring about changes in the programmes. Stufflebeam's principal contribution to educational evaluation has been his decision-facilitating CIPP (Context, input, Process, Product) model.

Stufflebeam recognized the need for evaluation to be more holistic in its approach. The CIPP model has also been used for accountability purposes since it 'provides a record-keeping framework that facilitates public review of educational needs, objectives, plans, activities, and outcomes. School administrators and school boards have found this approach useful in meeting public demands an information' (Worthen & Sanders, 1987:83). It also represents a rationale for assisting educators to be accountable for the decisions that they have made in the course of implementing a programme. Stufflebeam suggested that 'there were different aspects of programme planning, design and implementation to which evaluators needed to be sensitive, and that there were different types of evaluation necessary to these different aspects' (Potter, 1994:11). His CIPP model expressed the need to evaluate goals, look at inputs, examine implementation and delivery of services, as well as measure intended and unintended outcomes of the program. The CIPP Model focuses on the collection of four different types of data to inform the decisions of organizational administrators – context (C), input (I), process (P) and product (P) as shown in figure 2.2. The four forms of evaluation are explained below:

The figure 2.2.illustrating CIPP evaluation model

Source: Components of Stufflebeam's (2003:215) CIPP Model.

i) Context Evaluation

The objective of this evaluation is to provide a rationale for determination of educational objectives. It leads to identification of general goals and specific objectives that should be the focus of an educational programme.

ii) Input Evaluation

It provides information as to how the resources are being utilized to achieve the desired objectives. During input evaluation, the task is to ascertain the value of available capabilities of the system and potential strategies for achieving the objectives.

iii) Process Evaluation

The aim of process evaluation is to identify any defect in the procedural design particularly if the curriculum is not being implemented as planned. The evaluator monitors the actual instructional strategies in order to help the decision-maker to anticipate and overcome procedural difficulties

iv) Product Evaluation

It measures and interprets the attainment yielded by a programme. The information gathered is used to make comparison between expectations and actual outcomes. The product evaluation helps to decide whether to continue, terminate or modify a programme

Context evaluation is similar to problem analysis in that it serves as the “planning” information, identifying problems, needs and opportunities in order to develop program objectives. Input evaluation provides information regarding the resources that are available and needed in order to achieve identified objectives. Process evaluation evaluates whether changes are needed within an organization’s work environment in order to implement, but also measures whether program elements are being implemented as intended. Product evaluation focuses on the outcomes of a program or activity and helps administrators determine whether to continue, terminate, modify or refocus (Guskey, 2000:47).

The concept of evaluation is expressed most clearly in the definition by Stufflebeam et al. (1971:36) that evaluation is “the process of delineating, obtaining, and providing useful information for judging decision alternatives”. This means that evaluation:

- Assists in decision-making, it should therefore provide useful information for decision-makers.
- Is a cyclic and continuing process; it should therefore be systematic.

  Includes three main steps:

  (1) Delineating - using specification, definition, and explication to focus the information required by decision-makers;

  (2) Obtaining - using measurement and statistics to collect, organize, and analyze information;

  (3) Providing- synthesizing information so that it will best serve the needs of evaluation.

- Involves judgment. Evaluators tend to believe that their task is to collect and present the information needed by another who will determine worth; the decision-maker must make the ultimate value judgment, not them.
- Involves choosing one alternative over another, by determining their relative values.

Stufflebeam,(1983:140) stresses that evaluation is a concomitant of improvement. We cannot make our programs better unless we know where they are weak and strong and unless we become aware of better means. We cannot be sure that our goals are worthy unless we can match them to the needs of the people they are intended to serve. We cannot plan effectively if we are unaware of options and their relative merits: and we cannot convince our constituents that we have done good work and deserve continued support unless we can show them evidence that we have done what we promise and produced beneficial results. For these and other reasons, public servants must subject their work to competent evaluation, which

must help the sort out the good from bad point the way to needed improvements. Feedback mechanisrns allow the evaluation to keep up with the ongoing and changing realities and needs of educational programmes. Educational evaluation is 'concerned with educational development, and with the development of the curriculum as intrinsic to the educational enterprise. As with curriculum, educational evaluation is concerned with context, content and process, and is a field of inquiry which focuses or issues relevant to the vested interests of different stakeholders in education' (Potter, 1994:1).

Berk (1981:146) saw a need for “scrupulous and perceptive planning at all stages, from design to communication of results for decision making. Also criteria and standards by which the quality of evaluations can be judged are sorely needed”. The CIPP model has aimed to meet the former, while the development of the Standards has attempted to rectify the latter problem.

Conclusion

The context, input, process, product (CIPP) model, has several attractive features for those interested in curriculum evaluation. Its emphasis on decision making seems appropriate for administrators concerned with improving curricula. Its concern for the formative aspects of evaluation remedies a serious deficiency in the Tyler model. Finally, the detailed guidelines and forms created by the committee provide step-by-step guidance for users.

2.7 The implications of overcrowding in classrooms for Millennium Development Goals

Education for All (EFA) represents the world’s commitment to provide education to all who are eligible. EFA encompasses pre-primary, primary, secondary, tertiary and adult education. It is a multi-faceted challenge requiring simultaneous attention to access, equity, quality and relevance. Quite often, however, some of these facets may conflict for example; it is common that when access to schooling improves, quality declines. And also encompassed by EFA is Universal Primary Education (UPE) and Basic Education (BE). These two concepts, in fact, form the general education component of education systems in Africa. These are the aspects of EFA

that are best developed, as they are the only ones that could be said to be closest to offering education for all. (UNESCO, 2004:6). Uganda has made great strides in expanding access to primary education and thus towards the global goal of ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling including learners with special needs. The importance of including learners with special needs in regular classrooms has been emphasized recently by researchers (Kuyini & Mangope, 2011). Each child belongs to the regular classroom and there is no justification for excluding certain children from this environment. At the same time, while access to equal education is necessary for every learner regardless of ability, some children do not fully benefit from teaching because of undiagnosed special needs. It is therefore vital that learners are assessed early on or upon entry into primary school to ensure that schools are able to provide them with the necessary services to support their in-classroom learning (Mangope et al,.2012:139). Since the introduction of Universal Primary Education (UPE) in 1997, enrolment in primary education tripled from about 2.7 million in 1996 to 8.297 million in 2009. (SAU,2010:8) The Net enrolment ratio (NER), which is a key MDG indicator and measures the share of children in school-going age who are actually in school, has hovered above 90% in recent years, close to the 100% needed to meet the Millennium Development Goals (MDGsU, imh,2010:17). The elimination of school fees was part of an overall set of reforms in Uganda during the 1990s that had the objective of increasing public spending on primary education, increasing enrollment, improving equity, and improving education quality but the impact of enrolments increased stretching the available supply of schools, teachers and educational materials. (UNESCO, 2009:71).

At the global level, enrolment in primary education reached 88 percent in 2007, an increase of 5 percent from the 2000 figure. The gross intake rate in sub-Saharan Africa increased by 25 percent, by far the largest regional increase recorded. (UNDP, 2010:5). Even though many countries have achieved near universal primary education, dropout and repetition rates remain high. Universal primary education is achievable if supported by measures that address pupils' retention, particularly among girls, and ensure real learning outcomes. School completion remains an important UPE challenge and universalizing primary schooling cannot be achieved without addressing the specific reasons that poor children and girls do not attend

school, repeat grades, and drop out. Significant improvements have been made in narrowing the gender gap in schools. By 2008, 96 girls per 100 boys were enrolled globally in schools, compared with 91 in 1999 (UNDP, 2010:7)

Many MDG Country Reports noted problematic dropout rates for primary and secondary schools. Families are often discouraged from sending their children to primary schools by long distances to the schools. Often, the reasons for students leaving school are closely tied to the local economy and culture, as well as health challenges. For example in Lesotho boys from a young age tend to herd livestock and then migrate to take up work in the South African mining industry, in Rwanda parents are more likely to keep their children in school if they will not be able to continue into the secondary phase while in the Republic of Congo repetition invites parents to remove their child from school. The negative impacts of repetition are especially strong in situations where demand for school is lower (enrolment of girls, minority and economically disadvantaged children).”(UNDP, 2008:24). Dropout and non-completion of primary education are more significant than non-enrolment in most developing countries. For example, at current rates one third of school entrants in Sub-Saharan Africa and one fourth of entering students in South Asia will not complete primary education (UNESCO 2008:11).

In, Uganda the achievement of EFA goal of universal primary education remains in balance due to high drop-out rates and the poor quality of the learning outcomes, despite the government’s commitment to education as a priority development target under the Poverty Eradication Action Plan (PEAP).The assessment further reveals the common occurrence of pervasive petty corruption that permeates the day-to-day transactions at the classroom, school, and District levels. This takes form of teacher absenteeism, illegal charges that make education not affordable to all, low teacher salaries, bribery and fraud, erratic release of conditional and unconditional grants to schools, non-compliance with UPE Guidelines, limited accounting knowledge and skills of Head Teachers, poor record keeping and high attrition rates especially in the urban areas. (Transparency International, 2009:5).

Sustained improvements in education are impossible to achieve without improving the way key institutions in the sector function and increasing parental involvement in

decisions affecting their children's education. Uganda has a number of interventions put in place; (UN, 2005:58):

- School feeding programs disproportionately benefit poor children by creating incentives to enroll in and attend school and by improving health, attentiveness, and capacity to learn. Offering meals at school is an effective way to encourage children who are poor and chronically hungry to attend classes.
- School health programs, such as de-worming and iron supplementation, also increase school attendance and raise scores on tests of cognition or school achievement. The World Health Organization (WHO) has identified worm infections as the greatest cause of disease among 5- to 14-year-old children.
- Providing water and sanitation facilities at school is critical, especially for girls. According to the Ugandan Health Minister, Dr. Crispus Kiyonga, "Lack of latrines, especially separate latrines for girls, was identified as the worst school experience for girls…. Privacy issues relating to sanitation are a major factor forcing girls out of school"

Other interventions the Government has put in place so as to reduce on the drop-out rate and improve retention include (UN, 2009:13)

- The Payment of Primary Leaving Examinations (PLE) fees for primary seven class candidates which was implemented in year 2000. A provision of Uganda shillings 10.2billions has been included in the Medium Term Budget Framework (MTBF) for this purpose for the next three financial years.
- Ministry of Education and Sports is running a special alternative basic education programme for disadvantaged children such as urban poor children, Nomadic children, fishing communities working children. Over 19,000 pupils have been enrolled in school through this programme.
- Government has also provided special incentive grants for improvement of performance to girl children. This special initiative to promote Girls education aimed at increasing persistence of girls, improving performance, improving learning environment and improving parents and community support for female participation.

The escalation of the HIV/AIDS pandemic has put severe constraints on the education sector's organization, management and effectiveness. It's spreading

rapidly, and disease exacts a heavy toll. The HIV/AIDS problem has the potential to disrupt the provision of education. The impact of HIV/AIDS is also likely to manifest itself in the following ways; on demand, HIV/AIDS affects a growing number of children. The groups most strongly affected are HIV/AIDS orphans and other vulnerable children, as well as girls (who are more often infected by the virus than boys). On provision the impact of HIV/AIDS on teachers is reflected in a rising mortality rate and lower productivity due to absenteeism and on quality there is deterioration of educational provision and of education systems, the psychological conditions faced by both teachers and students, and declining capacity for planning and management (ADEA, 2003:14). As a result of AIDS there are fewer children to educate, fewer children can afford education, and fewer children can complete education. Education should be used as a tool to reverse the pandemic. Higher levels of enrollment and longer retention in school can be stimulated in three ways: focusing on specific interventions to reach out-of-school children, increasing the educational opportunities (formal and non formal) for girls and women, and increasing access to post primary education. All of these approaches take into account the powerful demand-side influences that affect the propensity of parents to send their children to school.

The immediate pressure of finding enough teachers to serve the increased enrolments coming about through successful EFA programs has led to emergency and ad hoc approaches. 18 million teachers will be required by 2015 if enrolment targets and basic quality criteria are to be met. (UNESCO, 2008:17). The numbers of certified or qualified teachers are thought to be more important than teacher pupil ratios in improving the quality of education. Most countries have invested heavily in training teachers and there have been significant attempts to improving the proportion of trained and experienced teachers in many countries in the region during the last decade. In Uganda the number of trained teachers is 168,000 (SAU, 2010:8)

In the Global Monitoring Report, two of the four broad policy areas which must be addressed if learning is to improve is, one, the development of a trained and motivated teaching force with opportunities for further professional development and two effective teaching and learning strategies are identified along with better

organized learning time, improved text books and more materials. (UNESCO, EFA GMR, 2008:25). Bringing universal primary education to a population relies very much on securing enough teachers. Its observed that teachers cannot function successfully in isolation from other inputs such as a sound curriculum, appropriate text-books and a workable management system which should have adequate supervision and support of teachers in the field and school based activities buttressed by opportunities for professional and career advancement.(Report to Norad, 2008:24) In Uganda, for example, the presence of large classes is likely to prevail for some time due to the massive resources that need to be invested into the system to bring the pupil-teacher ratio to 35:1 and below. In this a context, the strategies for improvement of teaching and learning by teachers are:

- Ministry of Education and Sports has establishment the Education Standards Agency (ESA), which has the responsibility of monitoring and ensuring the maintenance of Educational Standards, thereby assuring quality in Education services in Education institutions.(ICE, 2001:17)
- Budgetary allocations have continued to rise in support of the education sector. Current trends indicate increased funding for primary education in the national budget as well as donor contributions. The Education Sector takes the largest share of the national budget. For example, in 2006/07 Financial Year, it was projected to take 18.3% of Uganda Government expenditure which represents Shs.708.4 billion; an increase from Shs.635.6 billion of 2005/06 Financial Year. Official statistics show that in 2003/04 Financial Year, education took up 24% of the National Budget compared to about 7% in 1990/91 Financial Year (TI-Uganda, 2007:20).

Quality is at the heart of education. When children lack trained teachers, learning materials, instructional time and adequate school facilities they are unlikely to master the basics literacy and numeracy skills. On the quality front, policies need to be developed that will ensure improvement of the quality of education provided. What might be considered as quality education today may not be quality education tomorrow. It is conventional to describe quality in education in terms of such indicators as the percentage of trained teachers, pupil textbook ratios and pupil teacher ratios. Bandary (2005:185) states that quality education encompasses a

range of elements including the level of student achievement; the ability and qualification of staff; the standard of facilities and equipment; the effectiveness of teaching, planning and administrative processes; and the relevance of programmes to the needs of students and the nation in an emerging global knowledge economy. The quality of teacher/pupil interactions, the frequency of homework, and the opportunities offered to pupils to discuss and exchange ideas in class depend on the number of pupils in the class. In other words, quality mainly is a function of the number of pupils in a class. It is generally acknowledged that the “impact of class size on pupil learning, when the range is between fifteen and thirty-five pupils, is different than when the upper limit is as high as 100, as in many developing countries” (UNESCO, 2004:67).

Quality education is mainly the result of a combination of factors. However, the two that appear to have a significant impact on the outcomes of educational action include; first, contents and strategies and, secondly, resources. Contents and strategies are important because they reflect political orientations and put them into operation in the form of educational measures that can be effectively observed. Resources, meanwhile, form a series of relevant indicators regarding the determination to implement policy decisions.

Learners need to have access to learning materials, such as textbooks. Access to textbooks is an important factor in the provision of quality education. This not only contributes to quality education in terms of the availability of textbooks for learners, but also facilitates equity in access to education for children from diverse backgrounds. The quality of education also depends, to a great extent, on the methods used in the classroom, the relations between teachers and pupils, and the “close correspondence between the values and objectives” of teachers and pupils (UNESCO, 2004:228). Quality of education should be maintained while achieving high enrolment rates. Complementary initiatives to increase the number of trained teachers, and other quality inputs such as adequate and updated teaching materials, are key to improved learning outcomes. One measure of the quality of education is a student-teacher ratio of no more than 40 to 1, as recommended by the Education for All Fast Track Initiative (EFA-FTI). (UNDP, 2010:35)

There has been marked shortage of classroom resulting from the rapid rise in enrolment. Over-enrollment compounds the problems of inadequate materials and infrastructure. Class sizes continue to be large and teachers must frequently manage forty to fifty-five students in a class (CICE, 2009:10).

Deliberate effort by the Government of Uganda had to be made to put up additional classrooms**.** In the report showing development of education in Uganda, (2001) the ratio of pupils to classrooms was 131:1 in FY 1998/99 but the situation improved to 118:1 in FY 2000/01 and was expected to reach 82:1 in the FY 2003/04. A total sum of 53.9 billion Uganda shillings was spent on classroom construction during the period 1998/9 to 1999/000. A total of 6,689 classrooms were constructed. The number of classrooms continued to increase from 13,353 to 121,212 in 2003 and 2009 respectively *(*SAU, 2010:8*)*

The view of the World Bank was the object of a warning in UNESCO's EFA Global Monitoring Report on Education for 2005, which stresses that: "Effective teaching and learning require wide and equitable availability of learning materials. In many countries, this is not the case. This situation calls for urgent attention, including rethinking of policies governing production and distribution of textbooks and other learning materials, and the training of teachers in how to use learning materials more effectively, in line with good teaching practice. The unavailability of relevant and affordable teaching and learning materials poses a major limitation on the effective introduction of curriculum reforms.

A substantial proportion of Ministry of Education and Sport's annual budget has been spent to increase the supply of instructional materials to schools. These include core textbooks; teacher guides; supplementary readers and non-text book materials. As a result of these efforts, the pupil textbook ratios have improved to 1:8.9 for primary one to Primary three and 1:3.5 for primary four to primary seven. (Statistical abstract Uganda, 2008:49). Most of the schools are equipped with neither libraries nor workshops to support teaching learning activities to meet the educational needs of the learners. The basic facilities such as water, toilets and canteens for the

children's comfort and facilities to safeguard the girls are limited. Many dropouts or poor performers can be attributed to these poor working and learning conditions.

2.8 Global trends and challenges in assessment

In the words of Nelson Mandela, "Education is the most powerful weapon which you can use to change the world." Today the education system is constantly evolving to cater to modern needs, new research findings and society. It is the government's Department for education that is responsible for educational policies and schools, as well as childcare and child protection. There is always something in the news about the education system changing. The earliest form of schools began during the Roman era and it can be fair to say that the way in which teaching is run, has changed a lot since. But what are the latest trends in education and challenges that teachers should know about?

Malbert Smith III and Todd Sandvik, (2012:3), described the challenges facing education within different countries and organizations and the strategies for confronting them four common trends emerged. Each trend represents real opportunities to improve learning and better meet the needs of students, parents, and educators.

1. University and career readiness

The first concern of most education systems around the world is the level of effectiveness in readying students for advanced studies and jobs. The tight correlation between a country's education level and its economic productivity holds the attention of policy makers everywhere. It is widely held that individuals and communities with higher education levels have more and better opportunities in the long run. However, for a country to stay competitive among our globally connected economies, it must stay globally competitive in its educational outcomes. This means students must graduate high school ready for the demands of increasingly competitive universities and workplaces.

2. Longitudinal perspective

There is growing recognition that we need to take a longitudinal perspective on education if we are to effectively address the challenges of its fundamental goal of creating university and career ready citizens. This trend toward longitudinal

perspectives in education reinforces the need for vertical scales that span the developmental continuum which must be reflected in our measurement systems. Closer alignment of standards across the P-20 continuum is a key aspect of a longitudinal perspective, but a vertical scale is also essential for the meaningful analysis of growth to evaluate progress. Using a vertical scale especially one that connects to practical definitions of readiness at all levels provides a means of interpreting status and growth from a common perspective.

3. Digital content

The shift from print to digital content in education as in other segments of the publishing industry presents unprecedented challenges and opportunities. The days of backpacks crammed full of “one size fits all” textbooks are fading fast in the emergent digital age of education. The production and distribution of physical textbooks is a costly undertaking with substantial investment risk. Economies of scale and least common denominators of curriculum drive development. Smaller education markets have long had to settle for materials developed with larger, higher value customers in mind. Few if any textbooks have adequately addressed the spectrum of needs and interests within a given classroom. The digital transition, however, is enabling customization at scale. For students and educators, the shift to digital is generating new ways of viewing curriculum and assessment. However, major challenges emerge for navigating efficiently the abundance of online resources while retaining the deep curricular connections that education needs. While this digital trend holds great promise to truly democratize the delivery of educational opportunity across the globe, efficient tools and methodologies for finding 1) the right content at 2) the right level at 3) the right time must coincide with the adoption of digital resources

4. Individualized learning

Perhaps the most remarkable innovations being realized during this transformative moment in education relate to the individualization of learning. Technology is breaking down barriers to taking an entirely student-centric approach to learning, one that enables “just-in-time” educational delivery and extends the boundaries of educational time and space well beyond the classroom. Versatile online platforms are emerging that can store and use vast amounts of student data to inform and adapt learning paths in real time. Computer-based assessments are being blended

seamlessly into differentiated instructional activities that provide immediate feedback. This data is being used to power sophisticated, real-time reports for teachers and make the management of diverse needs in a classroom far more practical and efficient. Teachers are getting unprecedented views into student activity outside the classroom, such as actual time spent on homework assignments, along with highly efficient ways to communicate around those activities. The incorporation of vertical scales is ensuring that progress and goals are always front and center from a common, longitudinal perspective.

These four trends place education at the dawn of a new day with the legitimate potential to revolutionize how we teach and assess. For many generations, the delivery of education has remained largely unchanged: children are grouped by age and advance together through a series of classrooms along a prescribed path of print-based exams and curricular materials. Teachers have had few supports for differentiating instruction inside and outside of school. Today however, pre-school children share the promise of a very different educational experience: individual learning needs will be foremost at all times; progress toward university and career readiness will be clear and present throughout their educational life span; continuous assessment will be used to inform their daily instruction and practice without intrusion; and enhanced digital resources will engage more fully their passion for learning. To realize this potential, it is critical to establish foundations upon which to build and grow. The use of common, vertical scales that empower adaptive assessment, differentiated instruction, and persistent longitudinal views with meaningful standards are all essential ingredients.

Classroom assessment continues to presents many challenges to teachers. Although teachers routinely evaluate their student' learning, practice in effective classroom assessment is not yet part of most pre-service education programs. Therefore, most teachers have had little preparation for engaging in meaningful, ongoing assessment of student learning. For each classroom assessment teachers create, they should ask, "Will this assessment enable students to demonstrate that they have acquired the skills and knowledge described in the relevant content standards?" Some typical challenges include:

- Creating or using assessments that align well with lesson or unit objectives and address established content standards;

- Creating valid assessments that allow students to do well because they are proficient in the objectives (learning outcomes) being assessed;
- Implementing assessment in reasonable intervals to effectively impact instruction;
- Offering students adequate participation in the assessment process, enabling them to internalize criteria on which they are being evaluated; and
- Providing adequate opportunity to examine assessment results to determine next steps for instruction

On models of learning, teaching and assessment we have Transmission model and Constructivist model. The transmission Model assumes that learning is mainly dependent on the teacher, teaching is accomplished by telling and Learning is through repetition; the learner is a passive container, waiting to be filled with knowledge, but possibly not receiving the knowledge because of a block. The Purpose of assessment is to determine the effectiveness with which a body of knowledge has been communicated by the teacher to the student. The constructivist model assumes that knowledge is built up by the student in the form of connected schemas, and that what is taught is only one, and not necessarily the most important one, of many factors which influence this process. Constructivists see students as agents in their own learning. What they have come to know arises through active construction of concepts in making sense of their experiences. The Purpose of assessment is to provide a representation of the current state of a student's conceptual development in a subject, without being confined to the implemented curriculum. For many teachers and educators the cognitive shift from an assumed transmission model to constructivism begins when they themselves begin to notice what has been documented in research, namely that students use their own personal learning strategies. Many of these strategies have not been taught. These invented strategies are intelligently based on the student's own understanding of the world, which is often different from the way that it is seen by the teacher.
(http://ws1.roehampton.ac.uk/guidetogoodpracticeinassessment/teachinglearningandassessment/learningteaching/index.html)

In the world conference on Education for All (1990), the main purpose as stated in article 1 is meeting basic learning needs. Every person child, youth and adult shall be able to benefit from educational opportunities designed to meet their basic learning needs. These needs compromise both essential learning tools (such as literacy, oral expression, numeracy and problem solving) and the basic learning content (such as Knowledge, skills, values and attitudes) required by human beings to be able to survive, develop their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to make informed decisions and to continue learning (UNESCO, 1990:3). The Dakar Framework for Action (UNESCO, 2000:17) defines quality basic education as enabling learners to acquire literacy, numeracy and essential Life Skills. The Dakar Framework for Action draws on the Delors (1998:86) report's pillars of education to elaborate on skill areas:

- Learning to know: Thinking abilities, such as problem-solving, critical thinking, decision-making, understanding consequences;
- Learning to be: Personal abilities, such as managing stress and feelings, self-awareness, self-confidence;
- Learning to live together: Social abilities, such as communication, negotiation, assertiveness, teamwork, empathy; and
- Learning to do: Manual skills, such as practicing know-how required for work and tasks hence, curricular goals of promoting equity and social justice can lead to the planned incorporation of Life Skills in areas of learning to be and live together.

The fundamental importance of the right to education is unquestionable and has been reiterated in numerous conventions and declarations. According to Article 28 (1 a) under the 1989 Convention for the Rights of the Child (CRC), primary education shall be made "compulsory and available free to all." As the Framework for Action emphasizes, placing quality at the heart of EFA requires effective strategies to assess knowledge and skills and demonstrate measurable learning outcomes. This has two distinct elements: national systems of assessment, based on sample surveys, to provide information on how the education system as a whole is

developing; and classroom-based continuous assessment to enable teachers to provide regular feedback to students to improve their learning and performance (UNESCO, 2008:133).

Many students see assessment as central to their academic activities. When a staff member teaches students, they may ask, will this be in the examination or how many marks is it worth? Students continue to see assessment as a set of activities which determine their grade in a subject. Assessment can and does play an important role in students' learning. The assessment system used by academics needs to be viewed as part of the teaching process, because it is now widely accepted that student expectations of assessment have a strong influence on the content, depth and nature of their learning. When used appropriately, assessment can help to drive and enhance students' learning. In this regard it is important to note that it is student expectations of the nature of the assessment that impacts on learning. Furthermore we can say classroom assessment is both a teaching approach and a set of techniques. The approach is that the more the teachers knows about what and how students are learning; the better he or she can plan learning activities to structure the teaching while the techniques are mostly simple, non-graded, anonymous, in-class activities that give both you and your students useful feedback on the teaching-learning process. Thompson (as cited in Chimombo, 2005:143) urged that "The strength of the schools lies essentially in what is usually formed as general education, equipping young people with tools needed to investigate and inquire, to think, conclude and understand".

Studies carried out by Miller and Parlett (1974:55) focused on the extent to which students were oriented to cues about what was rewarded in the assessment system. They described different kinds of students: the 'cue seekers', who went out of their way to get out of the lecturer what was going to come up in the exam and what their personal preferences were; the 'cue conscious', who heard and paid attention to tips given out by their lecturers about what was important, and the 'cue deaf', for whom any such guidance passed straight over their heads. They concluded and said that people who were 'cue conscious' tended to get upper seconds and those who were 'cue deaf' got lower seconds.'

Assessment sometimes appears to be, at one and the same time, enormously expensive, disliked by both students and teachers, and largely ineffective in supporting learning but in the article by (Gibbs & Simpson, 2004-05:11) sets out and attempts to justify a set of conditions under which assessment can support learning which can be offered as a framework for teachers to review the effectiveness of their own assessment practice. They are:

1. Reactivating or consolidating prerequisite skills or knowledge prior to introducing the new material;
2. Focusing attention on important aspects of the subject;
3. Encouraging active learning strategies; and
4. Giving students opportunities to practice skills and consolidate learning.

In Uganda, the Ministry of Education and Sports began the National Assessment of Progress in Education (NAPE) in 2003, which involved testing literacy and numeracy competences of primary three and primary six learners nationally. The statistics usually included in the report, complement the MDG indicators with information that relates more directly to the quality of the education provided to learners. In the study of NAPE, carried out in 2006, shows that the overall mean score for innumeracy level of Primary Six (P6) learners was 33.6% and the overall mean score for literacy in English of primary six (P6) learners was 31.7% (UNEB, 2006:114). This means that the overall mean score is still below the expected achievement level of a mean score of at least 40%. The study also found out that performance in innumeracy of children in urban schools was 43.4% which was much better than those in rural areas rated at 31.9% and performance in literacy was 50.6 in urban schools and 28.2% for rural schools where the majority of children study. EFA Global monitoring report states that, International and regional assessments, and a growing number of national assessments conducted since 1999 show that poor learning outcomes in language, mathematics and other subjects still characterize many countries worldwide. UNESCO (2008:6). This paints a worrying picture on learning achievement and it would be a Pyrrhic victory for EFA if countries achieved UPE but failed to give children real opportunities to learn.

Many children complete the primary cycle, but low learning achievement in school leaves them far below the threshold for basic competencies. Millions of children in developing countries attend primary school and even graduate without ever acquiring minimum literacy and innumeracy skills. Test results in some countries also indicate that students have not mastered important basic concepts and are learning virtually nothing. (UNDP, 2005a:3). In most teaching and learning situations there are many opportunities for both students and teachers to make judgments; in this sense assessment is an almost continuous process. It's extremely important that students be encouraged to seek out and avail themselves of opportunities both to receive and to make such informal assessments of their own and others work. Assessment directly contributes to learning both by clarifying what is desirable or required and closing a feedback loop between students' learning efforts and their achievement. Telling students what is required will assist them to direct their learning efforts.

2.9 Overcrowded classrooms as a policy imperative

The commitments made by the international community at the Jomtien Conference (1990) and reiterated at the World Education Forum in Dakar (2000), marked a decisive turning point in the dialogue on development policies by placing education at the heart of the debate, especially through the goal of universal primary education (UNESCO,2009:73). The introduction of UPE in Uganda was aimed at realising the following major objectives:

1. Making basic education accessible to the learners and relevant to their needs as well as meeting national goals;
2. Making education equitable in order to eliminate disparities and inequalities;
3. Establishing, providing and maintaining quality education as the basis for promoting the necessary human resource development;
4. Initiating a fundamental positive transformation of society in the social, economic and political fields;
5. Ensuring that education is affordable to the majority of Ugandans by providing the minimum necessary facilities and resources and progressively the optimal facilities;

6. Enabling every child to enter and remain in school until they complete the primary education cycle. (Ti-Uganda 2009:19)

Nevertheless, Uganda like any other country in Africa, found it difficult to address this challenge and provide schooling in accordance with the growing demand this represents, particularly in terms of teacher recruitment. This has led them to totally rethink both the recruitment process and the profile of teachers. The teaching sector relies primarily on the human resources it employs: on the one hand, the quality of the teachers' work significantly determines the quality of the educational services delivered; on the other hand. These two facts most certainly make teacher matters the central element of current policies for the development of African education systems and the key to their expansion towards universal primary education (UPE) and eventually towards a cycle of basic education to incorporate lower secondary education (UNESCO, 2009:15). When implementing the strategies defined for reaching universal primary education (UPE) for all children in Africa, the initial challenge faced by many countries will be to benefit from an adequate number of qualified teachers. Many governments found it extremely difficult to effectively address the massive arrival of children in primary school, especially following the abolition of tuition fees.

UPE is not only defined by universal access to school but also supposes that all children complete a full cycle of primary education. We then refer to the primary completion rate (PCR), which estimates the proportion of children reaching the final grade of primary education. Where completion rates are low, aside from the recruitment of the necessary teachers, achieving UPE will therefore depend on the success of a suitable policy designed to raise the obstacles that are specifically related to the families' demand for education.

Government policies on repetition certainly have repercussions on the need for teachers. Basically, a high rate of repetition increases the number of pupils to be enrolled and so the number of teachers to be recruited. This practice has given rise to much criticism. If sufficiently extensive, policies to reduce repetition can provide an opportunity to reduce the constraints weighing on the need for new teachers. The average number of pupils per teacher (pupil-teacher ratio) is an essential factor to be

taken into account when defining the need for teachers. The Education For All Fast Track Initiative (EFA-FTI) framework recommends a reference value of 40 pupils per teacher in primary education (UNESCO, 2009:29).

Alexander Poirier in (http://www.ehow.com/inf 7916883 problems-class-sizes-elementary-schools) observes that;

- A child's experience in an elementary school classroom serves as the foundation for the rest of his educational career. Unfortunately, many elementary school students must learn in overcrowded, large classes that are not conducive to learning. In fact, a number of studies have been conducted that show that large classes negatively affect the learning atmosphere for the children involved in a number of ways, each of which stems from a teacher's inability to address each student's individual needs.

- According to the U.S. Agency for International Development, there is "an inverse relationship between class size and learning outcomes;" the larger the class, the lower the learning outcome.

- Teachers in large classrooms may have difficulties getting to know their students as individuals. Smaller classrooms often require less discipline from the teacher and can result in more time for teaching. Larger classrooms in which individualization is not possible can suffer from classroom management issues.

- Teachers working in a large classroom often do not have enough time to cover as many subjects as teachers working in a small classroom.

- The size of a classroom can affect the social and academic engagement of the students involved. Students in larger classes often do not have this sense of community, and are less engaged in both the social and academic aspects of school and this lack of community can also create a negative atmosphere for the teacher, impacting "teachers' morale and enjoyment of their profession."

- Students who are seated close to one another in a classroom might have difficulty focusing on the lessons, which leads to less learning and lower test scores. The invasion of personal space and feelings of being crowded both contribute to the lack of focus. In addition, students can be distracted by noises that are in close proximity to them in an overcrowded classroom.
- Overcrowded classrooms often do not have enough space for supplementary equipment. For example, a classroom might have to forgo computer stations to use the space for student desks. Science and art equipment also require space that an overcrowded classroom does not have.

To cope with the massive growth in primary school enrolments, Uganda has adopted a number of policy reforms and changes in school management to make universal access to primary education a reality. These efforts have caught and sustained the attention of the stakeholders, namely: the Government of Uganda (GoU), funding and technical agencies, and civil society to deliver and improve basic education in Uganda. The policy reforms include among other;

- Recruitment of teachers with no professional training, and with lower qualifications than those usually required, at lower salary levels. Government found it extremely difficult to effectively address the massive arrival of children in primary school, especially following the abolition of tuition fees. In order to address the challenges of universal primary education (UPE), untrained teachers were allowed to teach in schools (UNESCO, 2009: 78).
- Introduction of Teacher Development and Management System (TDMS). This is an integrated delivery system for primary education reform services focusing on improving pupil learning. The approach supports primary education by alleviating the problem of untrained teachers and improving management of primary schools with a focus on improved better pupil learning (TI-Uganda, 2009:22)

- Private education was liberalized to contribute, alongside public education, to reaching the EFA goals, either spontaneously, in response to family demands, or in the framework of a financial partnership with the government, the latter taking a share of school operating costs. Both public and private education is

taken into account when estimating the teachers needed to achieve UPE on the basis of changes in the school-age population (UNESCO, 2009:32)

Conclusion

The main factor for improving the quality of learning, beyond the professional characteristics of teachers, lies with the improvement of their routine activities. Better pedagogical effectiveness and a reduction in the class-effect through the continuous improvement of practices and activities must be a permanent goal for the supervisory body of the school inspectors and head teachers (UNESCO, 2009:177). Uganda has a rich base of education regulatory and policy frameworks but the practice is different from the intent. Compliance with policies and guidelines has not been fully enforced by the Ministry of Education and other stakeholders. The biggest bottleneck is the limited enforcement structures such as school inspection departments (TI-Uganda, 2007:35).

Teachers can do their best using what is in their means to facilitate teaching and learning in large classes, however, they still need institutional and policy support. The urgent support required include, but not restricted to provision of basic infrastructure such as bigger classroom space, sufficient furniture and instructional materials. Increasing the number of teachers to allow at least two teachers per class, providing schools with the necessary resources and enabling teachers to develop the confidence and skills to improve the learning environment through training teachers in specific strategies for large classes and providing them with the necessary instructional materials, the culture of reflective practice should be cultivated and bring teachers together in action and reflection and in participation with others, in the pursuit of long-term solutions to issues of large classes seems to be paramount.

2.10 How is teachers' perception of classroom assessment on their classroom assessment practices?

The teaching sector relies primarily on the human resources it employs: on the one hand, the quality of the teachers' work significantly determines the quality of the educational services delivered; on the other hand. These two facts most certainly make teacher matters the central element of current policies for the development of African education systems and the key to their expansion towards universal primary education (UPE) and eventually towards a cycle of basic education (UNESCO, 2009:15). Teachers should be given the essential role in the choice and adaptation of teaching material, the selection of textbooks and the application of teaching methods, within the framework of approved school programmes. Academic freedom and professional autonomy, though formally granted to teachers in most regions, usually come under pressures from ministries of education, provincial or state governments, school boards, schools and even head-teachers. Teachers can be discouraged from employing their own teaching methods in the classroom. In addition, teachers may be considerably limited in their professional autonomy by a structural lack of teaching resources and materials (Education International CEART Report 2009:13)

Assessment is an integral part of learning and teaching. It helps to provide a picture of a child's or young person's progress and achievements and to identify next steps in learning. Furthermore assessment approaches need to promote learner engagement and ensure appropriate support so that all learners can achieve their inspirational goals and maximize their potential. Assessment practices should be seen from the perspective of the learner. Learners should be engaged in all aspects of assessment processes and be afforded an element of choice and personalization in showing that they have achieved the intended outcomes. (http://www.educationscotland.gov.uk/learningteachingandassessment/assessment/about/index.asp)

A frame work for assessment developed through the Curriculum for excellence; Building the curriculum 5 , outlines the action levels of assessment; what we asses? Why we assess? How we assess? When we assess? (Table 2.6) Each action level requires classroom teachers to have classroom-level assessment expertise to carry

them out effectively. Assessment-literate educators, (those who gather accurate information about student achievement and be able to use the assessment process and its results effectively to improve achievement), know how to engage students in productive self-assessments that will support their learning success (Chappuis, J., Stiggins, R., Chappuis, S., & Arter, J. (2011:2)

Table 2.6 Action levels of assessment

Action Level of assessment	**Description**
What we assess	Applications of the national standards and expectations of each learner's progress and achievements in developing; • Knowledge and understanding • Skills • Attributes and capabilities
Why we assess	Supporting learning; • Sharing learning intentions and success criteria • High quality interaction and feedback Promoting learner engagement; • Learner involvement in reflection, setting learning goals and next steps including through personal learning planning • Self and peer assessment Ensuring appropriate support; • To be fair and inclusive • To enable learners to have the best chance of success
How we assess	• By using variety of approaches and range of evidence to fit the kind of learning • By making assessment fit for purpose and appropriately valid, reliable and proportionate • Through partnership working
When we assess	• As part of on going learning and teaching • Periodic (from time to time) • At transition

Adapted from APS Group Scotland, (2011:10): Curriculum for excellence building the curriculum 5

The traditional approach to teaching seems to miss some important steps between telling students what they are responsible for learning and evaluating how well they have learned it. Classroom assessment helps educators become more involved in the students' learning processes (Anne Davies, www.annedavies.com).

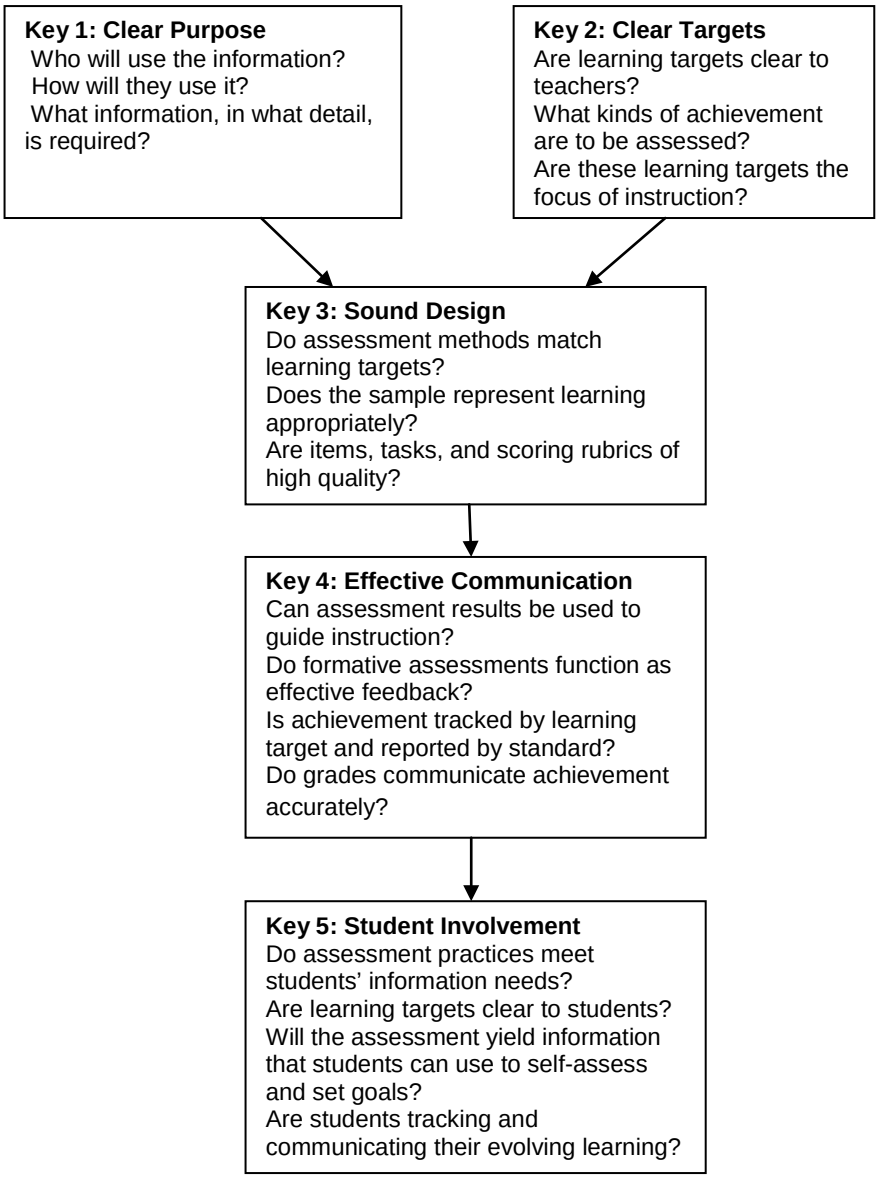
It should be noted that assessments can often be used for both formative and summative purposes. “Formative” and “summative” are not labels for different types or forms of assessment but describe how assessments are used. Formative is the use of day-to-day, often informal, assessments to explore pupils’ understanding so that the teacher can best decide how to help them to develop that understanding. Summative is the more formal summing-up of a pupil’s progress that can then be used for purposes ranging from providing information to parents to certification as part of a formal examination course Mansell, et.al (2009:9). They continue to describe the characteristics differences between the two uses of assessment as:

- Summative comes at the end of learning episodes, whereas formative is built in to the learning process;
- Summative aims to assess knowledge and understanding at a given point in time, whereas formative aims to develop it;
- Summative is static and one-way (usually the teacher or examiner judges the pupil), whereas formative is on-going and dynamic (feedback can be given both to the pupil and the teacher);
- Summative follows a set of pre-defined questions, whereas formative follows the flow of spontaneous dialogue and interaction, where one action builds on (is contingent upon) an earlier one.

Assessment is used in many ways in education. When people think about assessment quality, they often focus on the accuracy of the instrument itself—the extent to which the assessment items, tasks, and scoring rubrics produce accurate information. This is a key feature of assessment quality, but it gives a far from complete picture of what we have to understand to use assessment well in the

classroom (Chappuis, J. et. al (2011:3). However, they contend by giving keys qualities to classroom assessment as shown in Table 2.7

Table 2.7 Keys to Quality Classroom Assessment



Adapted from, Chappuis, J. et. al (2011:365)

Teachers' own class testing practices can help to increase pupils' self-efficacy if teachers explain the purpose and expectations of their tests and provide task-related feedback but when test results are used for making decisions that affect the status or

future of pupils, teachers or schools ('high stakes tests'), teachers adopt a teaching style that emphasizes transmission of knowledge. This favors those pupils who prefer to learn by mastering information presented sequentially (ARG, 2002:6). They also assert that teachers can be very effective in training pupils to pass tests even when the pupils do not have the understanding or higher order thinking skills that the tests are intended to measure. Testing regimes have considerable consequences for pupils' motivation and for their learning experiences as observed by (ARG 2002:8) as follows;

- Test performance can become more highly valued than what is being learned;
- Testing can reduce the self-esteem of lower-achieving pupils and can make it harder to convince them that they can succeed in other tasks;
- Constant failure in practice tests demoralizes some pupils and increases the gap between higher and lower achieving pupils;
- Test anxiety affects girls more than boys;
- Teaching methods may be restricted to what is necessary for passing tests (e.g. neglect of practical work).

To help improve the classroom assessment practices of all teachers, there is need together to make a move of assessment practices in the classroom from a collection of less-effective practices to a model that is grounded in the research of how to use classroom assessment to improve student learning (Chappuis, J. et. al (2011:10)). Table 2.8 Illustrates key shifts in thought and practice that are hallmarks of classroom assessment competency

Tables 2.8 shows Assessment practices

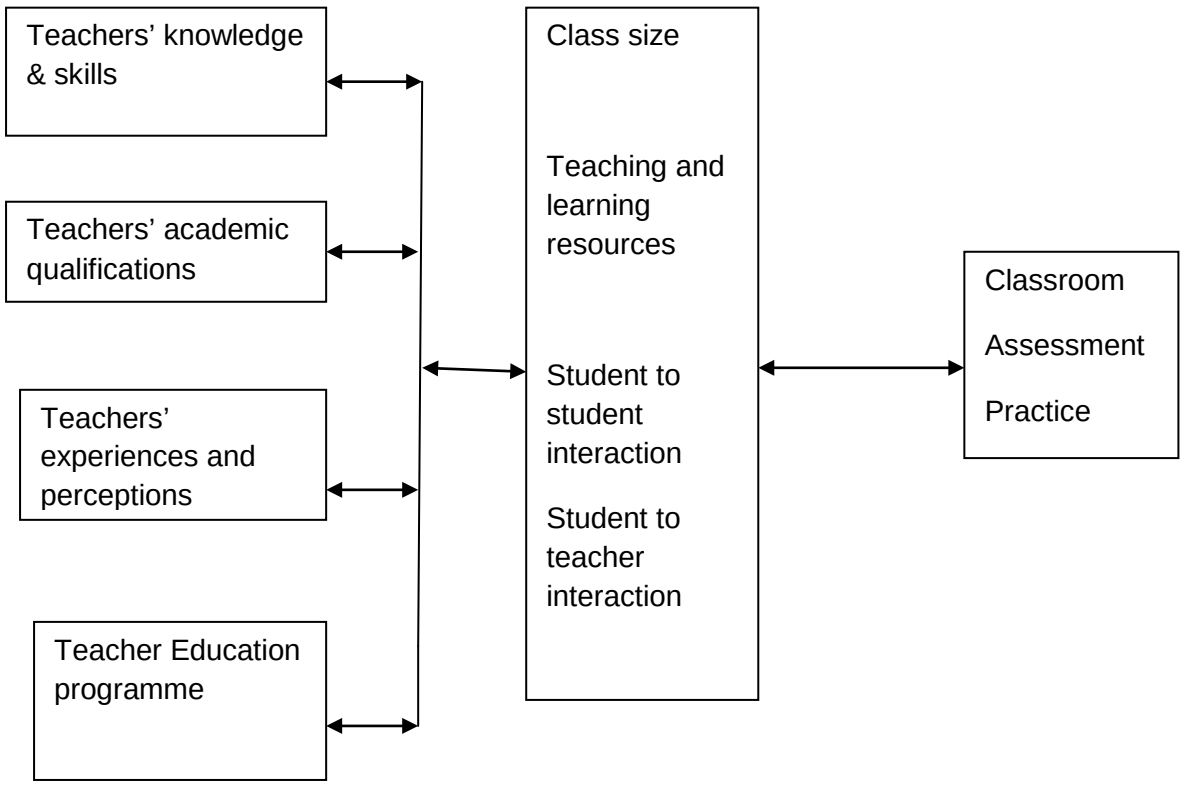
Classroom Assessment: From. . …… to . . .	
From	***To***
Classroom tests disconnected from the focus of instruction	Classroom tests reflecting the written and taught curriculum
Assessments using only selected response formats	Assessment methods selected intentionally to reflect specific kinds of learning targets
"Mystery" assessments, where students don't know in advance what they are accountable for learning	Transparency in assessments, where students know in advance what they will be held accountable for learning
All assessments and assignments, including	Some assessments and assignments "count"

practice, “count” toward the grade	toward the grade; others are for practice or other formative use
Students as passive participants in the assessment process	Students as active users of assessments as learning experiences
Students not finding out until the graded event what they are good at and what they need to work on	Students being able to identify their strengths and areas for further study during learning

Adapted from (*Chappuis, J. et. al, 2011:10)*

Teachers should assess progress constantly as part of daily learning and teaching and use evidence of learning to identify areas where progress has been particularly strong or less secure. However there are other factors in addition to perceptions of classroom assessment that are likely to influence teachers’ classroom assessment practice include class size, teaching, and learning resources which are illustrated in figure 2.9

Figure 2.9 showing factors likely to Influence Classroom Assessment Practices



Source: Susuwele – Banda, W.J, (2005:131)

In order to help them to make judgments across the full range of learning goals, Chappuis, J.,et. al (2011:49) give the following roles and responsibilities for teachers:

Roles and responsibilities for teachers

- work collaboratively to develop approaches to monitoring, self-evaluation and improvement planning
- engage regularly in collegiate working including by participating in local and national networking activities
- work with colleagues to develop a shared understanding of standards and expectations through moderation activities which involve coherent planning, checking, sampling, reviewing and providing feedback for improvement
- ensure that assessment always supports learning and is based on a wide range of evidence which is reliably judged against national standards and expectations and promotes progression, breadth and depth in learning
- plan, design and carry out assessment as an ongoing part of learning and teaching and periodically use specific assessments, tests or examinations as appropriate
- involve learners fully in assessment and help them to understand what is expected
- develop learners' roles in moderation activities
- evaluate evidence of learning to contribute to profiles and report on learners' achievements and progress
- participate in quality assurance, moderation and CPD activities, using materials available, to develop assessment expertise and to ensure assessment practices are valid and reliable
- contribute to and take ownership of the National Assessment Resource

For systemic change to occur, it must be embraced by those it impacts most of all teachers and students. Teachers who engage in quality classroom assessment for student learning as a matter of instructional practice should have clearer student learning intentions, offer more regular and descriptive feedback, create more accurate assessments, communicate assessment results more effectively and involve students in the assessment process. It can therefore be concluded that

assessment generally has a strong implications on the teachers and according to ARG, (2006:13) it states the following implications;

- Ensure that assessment is always used to help learning and that, when a summative assessment report is needed, the best evidence is reliably judged against relevant criteria.
- Involve pupils in self-assessment of ongoing work and help them to understand the criteria used in assessing their work for reporting purposes and how summative judgments are made.
- Take part in moderation of summative judgments and other quality assurance procedures.
- Use tests only when most appropriate, not as routine.

2.11 Summary

Quality classroom assessment produces accurate information that is used effectively to increase student learning. This is the “do it right” and “use it well” (Chappuis, J. et. al, 2011:12). Teachers think of assessment as an “ending” to a learning event. When preparing to teach a unit, their planning primarily consists of looking at the objectives and crafting activities that would engage all students. Now assessment is not referring to an individual test or task, but refers to an ongoing process that is interwoven with instruction. The process no longer happens only at the end; in fact, it begins with pre-assessment. When used with skill, assessment can motivate the reluctant, revive the discouraged, and thereby increase, not simply measure, achievement. Teachers’ assessment is often perceived as being, and indeed can be, unreliable and biased due to varying standards being applied but with appropriate training and moderation teachers’ assessment can reach satisfactory levels of reliability and the information can be used formatively, to help learning, as well as for summative purposes.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter shows the presentation of research methodology and procedure that was followed to generate and analyze data. Research methodology is the general setting up of how the research undertaking is going to be conducted. During the set up the researcher in this chapter shows the sampling of participants, mixed method research design used in the study, how the data was collected, and the questionnaires and interviews instruments used. Data analysis of the collected data is also explained in this chapter. Issues around validity and reliability of the instrument used to collect data and the ethical considerations taken into account. The study focal point is to address the central research question: —What is the practice of assessing pupils in overcrowded classrooms in primary schools of Kamwenge District in Uganda? This study is a social scientific research. The researcher conducts this type of research to explore the persistent phenomena, describe and explain the perceptions and attitudes of the participants in their natural settings (Babbie, 2008: 97). In this study, students, pupils and learners are used as synonymous and shall refer to those children studying in a primary school from primary one up to primary seven.

3.2 The interpretive paradigm

This research is positioned in the interpretive paradigm. The study is dealing with staff members at the school level who have various experiences. Rubin and Rubin (2005:43) argue that interpretive social research emphasizes the complexity of human beings, and attempts to construct and understand their worlds. The researcher working in this paradigm means that he is examining teachers within their context and attempts to make sense of their interpretation and experience of classroom assessment practices. Terre Blanche and Durrheim (2008:34) suggest that the interpretive researcher's purpose is to gain understanding of situations that are complex. Interpretive researchers recognize that by asking questions or by observing they may change the situation which they are studying (Bassey, 2007:43). Through social interaction of people, individuals can construct meaning and reality of

their surroundings and through that relation people are then able to express their lived experience.

The research design indicates the plan of action, the road map towards accomplishing the aims and the objectives of the study. Mixed method research design was used in this study. Working in this paradigm the researcher was able to find out how teachers perceive and practice assessment of learners in their schools based on their daily experience rather than the knowledge they have on assessment of learners. Interviews of teachers were conducted from four primary schools and questionnaires were administered in ten primary schools was used to collect data.

3.4 Research Methodology

According to Mouton and Marais (1996:16), methodology is the logic of the application of scientific methods to the investigation of phenomena. They further explain that methodology in the above definition refers to the logic of the decision – making process in scientific research. Methodology is further described as a coherent group of methods that complement each other to deliver data and findings that reflect the research questions and suit the research purpose (Henning, 2004:36). McMillan and Schumacher (2001:10) describe research methodology as a design whereby the researcher selects data collection and analysis procedures to investigate a specific research problem and Strauss, A., & Corbin, J., (1998:3) look at research methodology as a way of thinking about and studying social reality and its importance is that it provides a sense of vision, where it is that the analyst wants to go with the research. The techniques and procedures (method), on the other hand, furnish the means for bringing that vision into reality and Kvale (1996: 278) contends that Methods are a means to an end. They are ‘the way to the goal’ this means that our research question (the ‘goal’) should inform our choice of methods, not the other way around. Silverman (as cited in Willig, C. 2008:7) continues to suggest that ‘research methodology’ identifies ‘a general approach to studying research topics’

In this study the researcher used mixed method research design, i.e. both qualitative and quantitative. Creswell (as cited in Belk, 2006:203), observes that

mixed methods are becoming a viable research approach that bridges the gap between quantitative and qualitative methodologies. Moreover the methods are seen as eclectic, pluralistic and rejecting traditional dualisms and also they have been argued to be more pragmatic and driven by the research question rather than being constrained by paradigmatic assumptions. Sparrat, et al (2004:1) adds and supports this approach when he states that “each of these approaches has its own strengths and limitations, combining them seem to offer a more comprehensive approach to finding answers to research questions”. This also goes beyond the limitation of a single approach and the use of multiple approaches can capitalize on the strengths of each approach and offset their different weaknesses. Sometimes, the most appropriate way to answer a research question requires the use of two or more research methods (mixed methods design). We can combine qualitative and quantitative methods within the same study in order to answer related questions (Willig, C. 2008:22)

This chapter is divided into four sections: The first section outlines the research design, which describes the participants, the schools, the instruments used, procedure for data collection, and lastly a description of how the data were analyzed. The second section states the quality criteria which describes the reliability, dependability and validity. The third section gives the ethical considerations and the forth section states how the pilot study was carried out.

3.4 Research Design

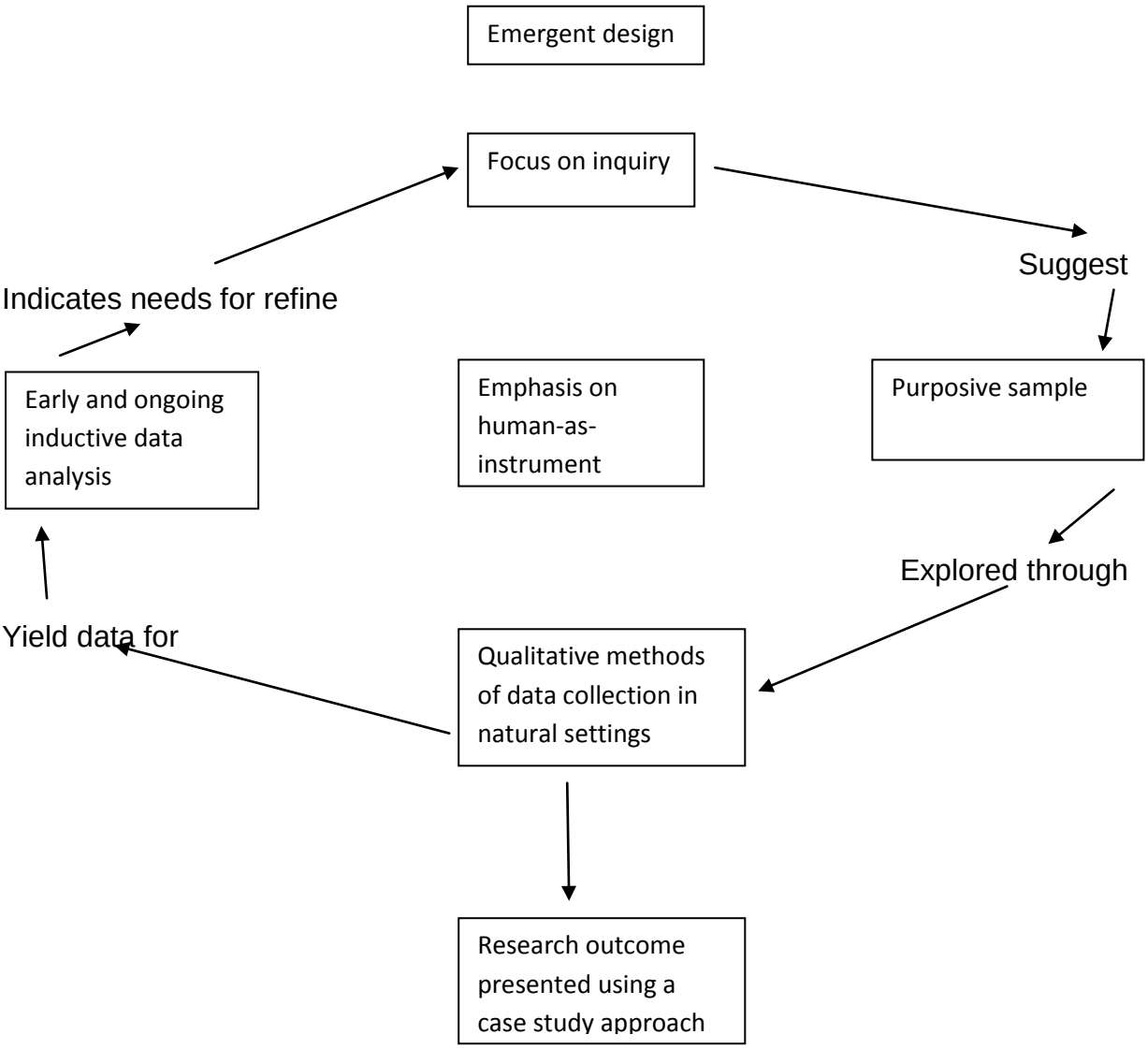
According to McMillan and Schumacher (2001:30), a research design describes the procedures for conducting the study, including when, from whom and under what conditions the data will be obtained. Also the design indicates how the research is set up, what happens to the subjects and what methods of data collection were used. Research design refers to a plan for selecting subjects, research sites and data collection procedures to answer the research question(s). Selltiz et al (as cited in Mouton and Marais, 1996:32) continue to define research design as the arrangement of conditions for collection and analyzing data in a manner that aims to combine relevance to the research purpose with the economy in procedure. This

gives the aim of research design as to align the pursuit of a research goal with the practical considerations and limitations of the project. Yin,R.K,. (2011:75) describe research design to be logical blue prints and serve as logical plans which involve the links among research questions, the data collected, and the strategies for analysing data so that the findings will address the intended research questions. He further states that qualitative research has no array of fixed designs, as might appear to exist in doing experiments. In other words, because there is no clear typology of blueprints, every qualitative study is likely to vary in its design, and being offered the various choices permits you to customize your design as you see fit. Another scholar, Creswell (2009:54), also define research design as a plan for selecting subjects, research sites, and data collection procedures to answer the research question. Accordingly, the research design shows which individuals will be studied, and when, where, and under which circumstances they will be studied. In relation to research design again, Babbie & Mouton (2001:74) describe it as a plan of how you intend conducting the research. More scholars have continued to define research design. Marvasti, A B., (2004:9) states that research design refers to the steps that researchers follow to complete their study from start to finish. These include:

- asking a research question based on a theoretical orientation
- selection of research respondents and data collection
- data analysis
- reporting the results

Qualitative research design needs to remain sufficiently open and flexible to permit exploration of whatever the phenomenon under the study offers for inquiry. Qualitative designs continue to be emergent even after data collection begins (Patton, M.Q. 2002:255). While Lincoln and Guba as cited in (Maikut, P. & More House, R., 1994:43) assert eight features as a framework for designing and implementing a qualitative research study as shown in Figure 3.1

Figure 3.1 Qualitative design



Adapted from Maikut,P.& More House,R.,(1994:43)

This study is both qualitative and quantitative in nature. Questionnaire, lesson observation protocol and semi-structured interview were used as the main tools for data collection. The questionnaire responses, the lesson observation and interviews helped to map out patterns between perceptions of classroom assessment and classroom assessment practice. “A primary characteristic of observation is that it involves the direct study of behavior by simply watching the subjects of the study without intruding upon them and recording certain critical natural responses to their

environment" (Rea and Parker, 1997: 3) Yin, (2011:289) supports the use of mixed methods because they offer an option that tries to take advantage of similarities and differences in qualitative and quantitative methods. Greene, Caracelli and Graham (1989:259) reviewed evaluation studies that used mixed methods and identified five main purposes for combining methods as follows:

- Triangulation seeks convergence, corroboration and correspondence of results from the different methods.
- Complementarities seeks elaboration, enhancement, illustration and clarification of the results from one method with the results from the other method.
- Development seeks to use the results from one method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions.
- Initiation seeks the discovery of paradox and contradiction, new perspectives of frameworks, the recasting of questions or results from one method with questions or results from the other method.
- Expansion seeks to extend the breadth and range of inquiry by using different methods for different inquiry components

The data was collected using the above sequential triangulation method. The researcher used interviews to collect data and analyzed the results, and then subsequently followed by data collection using questionnaires and they were also separately analyzed. The quantitative and the qualitative data were collected separately to offset the weaknesses inherent within one method with the strengths of the other. The interviews and the questionnaires were conducted in different phases and the results of the two databases were analyzed and discussed separately. Questionnaire elicited data related to teachers' perceptions of classroom assessment and classroom assessment practices and interviews were used to collect information that could not be observed directly in order to answer the research questions. In chapter four the researcher presented data collected from interviews followed by data collected from questionnaires.

In this study a questionnaire to elicit data related to teachers' perceptions of classroom assessment and classroom assessment practices and interviews were used to collect information that could not be observed directly in order to answer the research questions

3.5. Sampling

Sampling in research, as stated by Natasha et.al (2005:5) is done because it is not necessary to collect data from everyone in a community in order to get valid findings, but only a sample (that is, a subject) of a population is selected for any given study. A sample is the set of actual data sources that are drawn from a larger population of potential data Sources (The SAGE Encyclopedia, 2008:797) and sampling is the strategy of selecting a smaller section of the population that will accurately represent the patterns of the target population at large (Cohen et al 2001: 92). The purpose of the sampling is to gain information about the population by using the sampling (Maxwell, 2008:121). Sampling in educational research is generally conducted in order to permit the detailed study of part, rather the whole of a population. The information derived from the resulting sample is customarily employed to develop useful a generation about the population (Ross, Module 3:1).It is not possible, nor it is necessary, to collect information from the total population. Instead, a smaller subgroup of the target population or a sample is selected for the purpose of study. The main purposes of sampling are to economies on the resources required for collecting and managing the data from a smaller sub-group and to improve quality of data by focusing on a smaller group. Natasha et al. (2005:5) add that purposive sampling is one of the most common sampling strategies, group's participants according to preselected criteria relevant to a particular research question. Sample sizes, which may or may not be fixed prior to data collection, depend on the resources and time available, as well as the study's objectives. Purposive sampling is therefore most successful when data review and analysis are done in conjunction with data collection. In qualitative research, participants (or settings, such as schools or organizations) are carefully selected for inclusion, based on the possibility that each participant (or setting) will expand the variability of the sample. Purposive sampling increases the likelihood that variability common in any social phenomenon

will be represented in the data (Maykut & Morehouse, 1994:40). The researcher in this study made a sample that represented teachers across different classes and teaching experiences in both genders in order to get multiple perspectives and a rich understanding.

Purposeful sampling was used to select the four primary schools where interviews were conducted. The four primary schools were selected primarily because each school represented the four grades of primary schools in Uganda. One school represented top performing schools; two schools as average performing schools and one underperform schools. By choosing schools with different performance levels, the researcher assumed that learners assessment could partly influence the school performance, as previous research has found that assessment exist in top performing schools and this would enable me to address my research questions. The teachers interviewed were selected using simple purposive sampling because the researcher required information-rich key informants, and he expected that the teacher have the basic knowledge information about influence of teachers' perception of classroom assessment on classroom assessment practices and they know the methods and tools they use to assess learners in schools. The sample consisted of three teachers from each of the four schools for interview purpose, therefore twelve teachers were interviewed.

Furthermore, ten primary schools were also sampled randomly for distribution of questionnaires. It was also requested that the questionnaires be filled by the head teachers, because they have experience of the impact of overcrowded classes on effective assessment in schools performance.

This study used purposeful sampling or sometimes called purposive or judgment sampling, here you decide the purpose you want informants (or communities) to serve and you go out to find some (Bernard, H.R.(2000:176). Sampling procedures in qualitative research are sometimes referred to as purposive, meaning that the theoretical purpose of the project, rather than a strict methodological mandate, determines the selection process (Marvasti, A.B., 2004:9). Purposive sampling is

best used with small numbers of individuals/groups which may well be sufficient for understanding human perceptions, problems, needs, behaviors and contexts, which are the main justification for a qualitative audience research.

The researcher used a simple random sampling in choosing the 4 schools. In simple random sampling subjects are selected from the population so that all the members of the population have the same probability of being chosen (McMillan & Schumacher, 2001:170), this method is usually used when the population is small. According to Marvasti, A.B., (2004:9) this is the first steps in conducting research is the selection of participants or respondents. For quantitative researchers, the preconditions of statistical analysis require that respondents be selected randomly. In this study the procedure of using a table of random numbers with a set of random assorted digits was adopted in sampling four schools from 16 cluster centers schools in the two Counties of Kitagwenda and Kibale in Kamwenge District.

3.3.1 Sample size

According to Patton, M.Q. (2002:244) he asserts that there are no rules for sample size as it depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility and what can be done with available time and resources. The researcher must determine the size of the sample that will provide sufficient data to answer the research question. Sample size is the number of subjects in a study (McMillan & Schumacher, 2001:177). They further state that in situations in which a random sample is selected, a sample size that is only small percentage of the population can approximate the characteristics of the population satisfactorily. To determine the sample size the following factors should be considered;

- The type of research
- Research hypotheses
- Financial constraints
- The importance of the result

- The number of variables studied
- The method of data collection
- The degree of accuracy needed

The researcher used the sample size as shown in table 3.3 in conducting this study

Table 3.3: The sample size of the study

Type of Area /Population	***Available number***	***Number of sample***	***Percentage***
Counties	2	2 counties (2 out of 2)	100%
Coordinating Centers (CC)	5	4 CC (4 out of 5)	80%
Schools	147	4 schools (1 school in each CC) for interview	2.7%
Schools	147	10 schools (2 schools in each CC and Town council) for questionnaire	6.8%
Teachers	1176	12 (3 teachers in each CC)	1.02%

3.6 Population

Population is a group of elements or cases, whether individuals, objects, or events, that conform to specific criteria and to which we intend to generalize the results of the research (McMillan & Schumacher, 2001:169). In this study, the population will be three classroom teachers interviewed from each of the four selected primary

schools and ten head teachers who filled the questionnaires from the sampled ten schools involved in the study.

3.7 Data Collection

In this study data collection methods shall be referred to as the systematic approach to data collection and data collection techniques shall be referred to as the art of asking, listening, and interpreting. Data collecting techniques, which are used to classify research, can be classified as either quantitative or qualitative. The big difference is that quantitative approaches use numbers to describe phenomena while qualitative use narrative description (McMillan & Schumacher, 2001:39). When used alongside quantitative methods, qualitative research can help us to interpret and better understanding the complex reality of a given situation and the implication of quantitative data (Natasha et al., 2005:2).

This study used multi method strategies which permitted triangulation of data across inquiry techniques. Different strategies may yield different insights about a topic of interest and increase credibility of findings. Interpretations of people during research can be flawed, it is important that the flaws in people's observations and assertions be reduced. The interpretive concept of defining and redefining the meaning of what investigators see and hear about the phenomenon, relies heavily on observers (Stake, 2010: 36) In this study, triangulation strategy was chosen to lessen flaws in data collected and to validate data interpretations and findings. Triangulation refers to multi methods to increase validity of findings within one mode of inquiry (McMillan & Schumacher, 2001:541). Garbers (2006:208) define triangulation design as a multi-method approach to data collection and data analysis. He further argues that the basic underpinning the concept of triangulation is that the phenomena under study can be understood best when approached with variety or a combination of research methods.

According to Stake (2010: 123), triangulation is a form of confirmation and validation of evidence acquired in a study which makes a researcher more confident that the meaning perceived is right – since this meaning was constructed from more than one vintage point. According to Creswell (2009: 14), concurrent mixed methods procedures enable the researcher to collect both qualitative and quantitative forms of

data at the same time and then integrate the information in the interpretation of the overall results. In this way, as Andrew and Halcomb (2009: 44) argue, the concurrent use of qualitative and quantitative measures will add to the depth and scope of findings. Furthermore mixed methods study combines qualitative and quantitative techniques and/or data analysis within different phases of research process (Tashakkori & Teddie, as cited in McMillan & Schumacher, 2001:542).

3.7.1 Gaining access

Permission to conduct research was applied to Kamwenge Department of Education, after approval, the researcher sent the letters to four selected primary schools to ask for permission to conduct interview with three teachers per school and to distribute questionnaire to the ten sampled schools. The researcher assumed that it would not be difficult to gain access to these schools because he supervises all these schools.

3.7.2 Qualitative Research approaches

In this study the researcher used qualitative research approach when he conducted interviews to collect information on teachers' perception of classroom assessment. According to Natasha et al. (2005:1) qualitative research is a type of scientific research which consists of an investigation that:

- seeks answers to a question
- Systematically uses a predefined set of procedures to answer the question
- collects evidence
- produces findings that were not determined in advance
- produces findings that are applicable beyond the immediate boundaries of the study

Qualitative research describes and analyses people's individual and collective social actions, beliefs, thoughts and perceptions. In qualitative research, the researcher interprets phenomena in terms of the meanings people bring to them (McMillan and Schumacher, 2001:395). The credibility of qualitative research is confirmed to the extent that data are collected ethically, that any personal biases are kept in check, and that interpretations are sound (Anderson & Poole, 2009: 26). It further presents data as a narration with words. Qualitative research methods are based on different

assumptions about the world, the research purpose, research methods and prototypical studies.

3.7.2.1 Qualitative data collection

Data collection refers to the compiling or accumulating of objects (documents, artifacts, and archival records) or data (which are the smallest or lowest entities or recorded elements resulting from some experience, observation, experiment, or other similar situation) related to the study topic. Most of the collecting will occur while you are in the field, but you also can collect objects from other sources, including libraries, historical archives, and electronically based sources (Sherman R & Webb, R.B. 2005:147) In Qualitative, the data collection and analysis strategies are techniques that are flexible and dependent on each prior strategy and the data obtained from that strategy (McMillan & Schumacher, 2001:405). Qualitative methods are effective in identifying intangible factors, such as social norms, socioeconomic status, gender roles, ethnicity, and religion, whose role in the research issue may not be readily apparent. When used along with quantitative methods, qualitative research can help us to interpret and better understand the complex reality of a given situation and the implications of quantitative data. According to Strauss, A., & Corbin, J., (1998:11) qualitative methods can be used to obtain the intricate details about phenomena such as feelings, thought processes, and emotions that are difficult to extract or learn about through more conventional research methods. The three most qualitative methods are; Participation observation, in-depth interviews and focus group. Each method is particularly suited to collect a specific type of data.

- Participant observation- is appropriate for collecting data on naturally occurring behaviors in their natural context;

- In – depth interviews are optimal for collecting data on individual's personal histories, perspectives and experiences particularly when sensitive topics are being explored; and

- Focus - groups are effective in eliciting data on the cultural norms of a group and in generating broad overviews of issues of concern to the cultural groups to sub groups represented (Natasha, et al 2005:2)

3.7.2.2 Interviews

To determine teachers' in-depth views regarding their experiences of learners' classroom assessment and practices, the researcher found it necessary to conduct interviews. Harries (2008:36) argues that events cannot be understood unless one understands how these events are perceived and interpreted by people who participate in them. Teachers handle learners in their classroom every school day and therefore getting information on their understanding and know-how of learners assessment influence on quality of teaching and learning process.

Hennink, Hutter and Bailey (2011: 109) describe in-depth interview as one-to-one method of data collection enhancing '*a meaning-making partnership'* between interviewer and interviewee. People are interviewed to find out from them those things the researcher cannot directly observe like feelings, thoughts, and intentions. The purpose on interviewing is to allow a researcher to enter into the other person's perspective. Interviews are conducted to find out what is in someone else's mind and then gather their stories (Voce, March 2005:7). According to Seidman, I, (2006:10) the purpose of in-depth interviewing is not to get answers to questions, nor to test hypotheses, and not to "evaluate" as the term is normally used but to provide access to the context of people's behavior and thereby provide a way for researchers to understand the meaning of that behavior. It also allows us to put behavior in context and provides access to understanding their action. In this study individual semi-structured interviews were used. Semi-structured interviews allowed for the ordering of questions to be employed flexibly to take account of the priority accorded each topic by the interviewer (Barbour, 2008: 17). Each participant was allocated between fifteen to thirty minutes during the interview session. Through the use of interviews, the researcher, as indicated by McBurney and White (2007: 254), the researcher was able to probe questions in an attempt to gain in-depth knowledge of learners' assessment. According to Robert Stake, (2010:89) Interviews are used for a number of purposes. For a qualitative researcher, perhaps the main purposes are:

1. Obtaining unique information or interpretation held by the person interviewed
2. Collecting a numerical aggregation of information from many persons

3. Finding out about “a thing” that the researchers were unable to observe themselves

The first and the third are tailored to the individual person and often should be conversational, with the interviewer asking probing questions to clarify and refine the information and interpretation. Silverman, D (1993:19) contends that interview is an everyday activity we live in. McNamara, as cited in Dapzuri & Pallary (2004:3) states that interviews are particularly useful for getting the story behind a participant’s experiences. The interviewers can pursue in-depth information around the topic. Interviews may be useful as a follow up to certain respondents to questionnaire e.g. to further investigate their responses. The qualitative research interview seeks to describe the meaning of the central theme in the life world of the subjects.

Patton (as cited in Voce, March, 2005:7) states three basic approaches to collecting qualitative data through open-ended interviews and this include; the informal, conversational interview, the general interview guide approach and the standardized open-ended interview. Each approach has strengths and weaknesses, and each serves a somewhat different purpose. Each approach involves a different type of preparation, conceptualization and instrumentation. The three approaches differ in the extent to which interview questions are determined and standardized before the interview occurs.

The above mentioned interview approaches are not limited to particular purpose. A combination of the approaches gives the interviewer flexibility in probing and in determining when it is appropriate to explore certain subjects in greater depth, or even to pose questions about new areas of inquiry that were not originally anticipated in the interview instrument’s development.

A pilot interview was conducted by the researcher to the teachers of two similar primary schools that were not included in the study before the interviews commenced. The aim of the pilot interview was to evaluate and improve the effectiveness of the questions to be used during interviews and alterations to be made to the questions where necessary before the interview. The pilot interview was also conducted to validate the interview schedule and to enable the researcher think about what to expect from the teachers.

Semi-structured interviews were conducted with the twelve teachers from the four primary schools. The interview was semi-structured, the researcher was leading the interview, there was a set time established for the interviews and there were some planned questions prior to the interview. The researcher took four weeks conducting interviews. Some of the questions were open-ended so as to allow free participants opinions come out clearly. This also gave the researcher to probe further into areas that arise during interview interactions. They were in-depth because they were designed to go deeply into the understanding of the informants. (See the attached questions for interviews in appendix D).

In this study, the interviewer worked directly during the face-to-face interviews with the respondents who are the 12 teachers from the 4 selected primary schools. The researcher wrote notes of the answers of the interviewee and also a record of what was said which enabled him carry out the data analysis process.

3.7.3 Quantitative data collection

Quantitative research techniques emphasize a priori categories to collect data in the forms of numbers. The goal is to provide statistical descriptions, relationships and explanations (McMillan & Schumacher, 2001:40). In this study a questionnaire was constructed and administered to teachers and data was collected.

3.7.3.1 Questionnaires

In this research, data was also collected through questionnaire. Twenty questionnaires were piloted to four primary schools before the main data collection. These primary schools were not part of the sample for the main data collection. The pilot study consisted of participants similar to the participants of the research study. Feedback from the pilot study made the researcher to correct unclear statements or items in the questionnaire. Questionnaires were distributed to ten primary schools of Kamwenge district.

The distribution of the questionnaire to the ten primary schools took the researcher seven days and the last questionnaire that was returned from the sampled school took five weeks. Each participant was anticipated to take about thirty minutes to complete the questionnaire. Participants were advised to complete their questionnaire during their free time. The questionnaire consisted of open-ended and closed-ended questions. It consisted of section A, which is biographical data; section B, which is knowledge and attitudes on classroom assessment; section C, which deals with classroom assessment practices and section D which deals with general questions. Respondents were required to complete the questionnaire by circling the appropriate number of their choice for each item on a Likert five-point scale. The five-point Likert scale of satisfaction legend consisting of strongly disagree, disagree, neutral, agree and strongly agree was used in section B. Another Likert four-point scale consisting of strongly disagree, disagree, agree and strongly agree. (See the attached questionnaire in Appendix C and E).

Questionnaires are techniques that are commonly used to collect descriptive quantitative data. A questionnaire is a set of written questions and or statements to which the research participants are to respond in order to provide data relevant to the research topic (Ravhura, 2006: 32). According to McMillan and Schumacher (2001:257), questionnaires have the same questions for all subjects and can ensure anonymity, but in all cases the subject is responding to something written for specific purposes and they continue to state that questionnaires encompass a variety of instruments in which the subjects respond to written questions to elicit reactions, beliefs and attitude (McMillan & Schumacher, 2001:40). In development of the questionnaire the researcher adapted steps as summarized by McMillan and Schumacher, (2001:258) as follows;

Justification → Define objectives → write items → Review items →

Construct general format → Pretest → Revision

Questionnaires are pretested to assess whether a questionnaire has been designed in a manner that will elicit the required information from the respondent. The process allows weakness in the questionnaires' to be detected so that they can be removed before the final form is prepared (Ross, Module 1:20

3.7.4 Data collection techniques

In this study data collection methods shall be referred to as the systematic approach to data collection and data collection techniques shall be referred to as the art of asking, listening, and interpreting. Data collecting techniques, which are used to classify research, can be classified as either quantitative or qualitative. The big difference is that quantitative approaches use numbers to describe phenomena while qualitative use narrative description (McMillan & Schumacher, 2001:39). When used alongside quantitative methods, qualitative research can help us to interpret and better understanding the complex reality of a given situation and the implication of quantitative data (Natasha et al., 2005:2).

In this study, multi method strategies were used which permitted triangulation of data across inquiry techniques. Different strategies may yield different insights about a topic of interest and increase credibility of findings. Interpretations of people during research can be flawed, it is important that the flaws in people's observations and assertions be reduced. The interpretive concept of defining and redefining the meaning of what investigators see and hear about the phenomenon, relies heavily on observers (Stake, 2010: 36) In this study, triangulation strategy was chosen to lessen flaws in data collected and to validate data interpretations and findings. Triangulation refers to multi methods to increase validity of findings within one mode of inquiry (McMillan & Schumacher, 2001:541). Garbers (2006:208) define triangulation design as a multi-method approach to data collection and data analysis. He further argues that the basic underpinning the concept of triangulation is that the phenomena under study can be understood best when approached with variety or a combination of research methods.

According to Stake (2010: 123), triangulation is a form of confirmation and validation of evidence acquired in a study which makes a researcher more confident that the meaning perceived is right – since this meaning was constructed from more than one vintage point. According to Creswell (2009: 14), concurrent mixed methods procedures enable the researcher to collect both qualitative and quantitative forms of data at the same time and then integrate the information in the interpretation of the overall results. In this way, as Andrew and Halcomb (2009: 44) argue, the concurrent use of qualitative and quantitative measures will add to the depth and scope of

findings. Furthermore mixed methods study combines qualitative and quantitative techniques and/or data analysis within different phases of research process (Tashakkori & Teddie, as cited in McMillan & Schumacher, 2001:542).

The following five phases as described by McMillan and Schumacher (2001:405) was adopted by the researcher to collect data in the chosen schools as shown in the table 3.5

Table 3.5: Phases used in collecting data

Phase	***Activity***	***Notes***
Phase 1	Planning	Researcher located and gained permission to use the sites and persons
Phase 2	Beginning data collection	The researcher obtained data primarily to become oriented to the field and gain sense of "totality" of setting for purposeful sampling
Phase 3	Basic data collection	The researcher started to hear, see and read what's going on. He continued to make choices of data collection strategies and informants. Tentative data analysis began
Phase 4	Closing data collection	The researcher left the field. Gave more attention to possible interpretations and verifications of the emergent findings, with key informants and the remaining interviews
Phase 5	Completion	The researcher completed

		data collection phase. Data analysis began with a construction of “the facts” as found in the research recorded data

(Adapted from McMillan and Schumacher (2001:405)

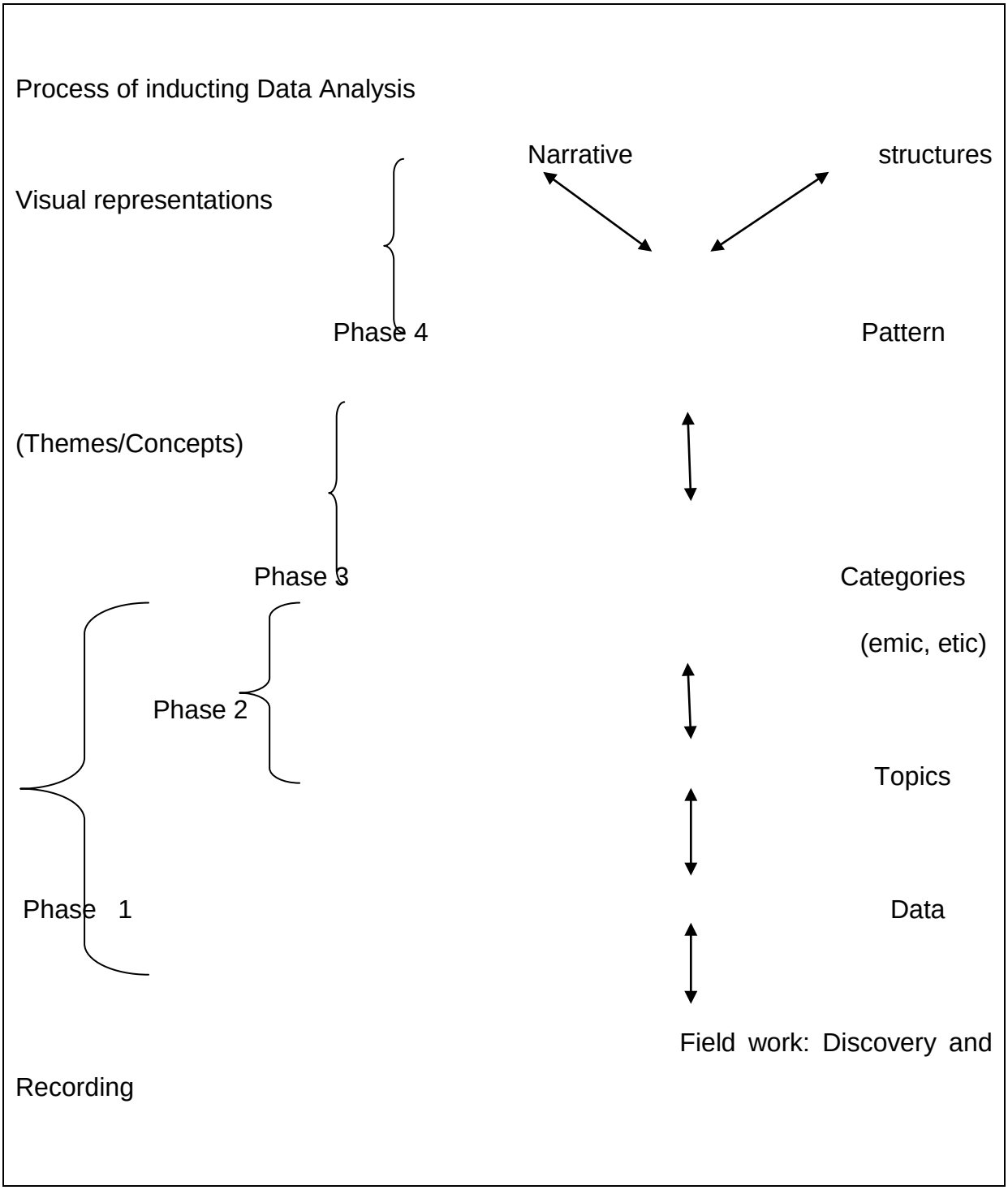
3.8 Data analysis

The data collected were finally analyzed by a process of identifying, classifying, coding and categorizing the themes in the data (Anderson & Poole, 2009:27). Saldana (2009:122) views data analysis as a process that requires the analyst to capture an understanding of the data in writing. Data analysis in mixed methods research relates to the type of research strategy chosen for the procedures. The procedures need to be identified within the design. However, analysis occurs both within the quantitative (descriptive and inferential numeric analysis) approach and the qualitative (description and thematic text or image analysis) approach, and often between the two approaches. (Cresswell, J.W., 2003:25)

3.8.1 Qualitative data analysis

Qualitative data analysis is relatively systematic process of selecting, categorizing, comparing, synthesizing and interpreting to provide explanations of the single phenomena of interest (McMillan & Schumacher, 2001:462). They continue to state that qualitative data analysis varies widely because of the different research foci, purposes data collection strategies and mode of qualitative inquiry. Data analysis is an ongoing cyclical process integrated into all phases of qualitative research as shown in figure 3.2 below;

Figure 3.2 Process of inductive data analysis



(Adapted from McMillan & Schumacher, 2001:463)

The process has four overlapping phases whereby as a researcher moves to more abstract levels of data analysis, she or he constantly returns to the prior level of

abstraction, always double checking and reefing her or his own analysis and interpretation. It's also noticed that unless certain elements are present in the data, then analysis does not proceed smoothly. Researchers negotiate permission to return to the field, if necessary, to seek additional data and validate emerging patterns

3.9 Technical Adequacy

Watling, as cited in Winter, (2000:7) states that Reliability and validity are tools of an essentially positivist epistemology while McMillan & Schumacher, (2001:239) continue to state that validity and reliability are two technical concepts which are important in determining quality and research results depend heavily on the quality of the measurement. If the measure is weak or biased, then so are the results.

3.9.1 Validity

Validity of research is crucial in all social research regardless of disciplines and the methods employed. Collected data must be accurate, authentic, and represent reality (Sherman R & Webb, R.B, 2005:84). Validity in research is the soundness of a study and is achieved through appropriate selection of participants and inquiries, and scrupulous faithfulness to the data in the analysis and in the representation of the findings (Fisher, T. C, 2006: XVII). According to Anderson and Halcomb (2009: 123) further contend that research validation assumes the scientific standards of rigour. McMillan and Schumacher (2010: 104) further assert that validity means the degree to which scientific explanations of a phenomenon match reality – thus the truthfulness of findings and conclusions. Other scholars like Foster (2008:87) define validity as a judgment of the appropriateness of a measure for specific inference or decisions that results from scores that are generated and Maxwell (as cited in Yin, 2011:78) refers validity to the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account and continues to give a seven-point checklist to be used in combating the threats to validity as follows;

1. Intensive long-term [field] involvement to produce a complete and in-depth understanding of field situations, including the opportunity to make repeated observations and interviews;
2. "Rich" data to cover fully the field observations and interviews with detailed and varied data;
3. Respondent validation to obtain feedback from the people studied, to lessen the misinterpretation of their self-reported behaviors and views;
4. Search for discrepant evidence and negative cases to test rival or competing explanations;
5. Triangulation to collect converging evidence from different sources;
6. Quasi-statistics to use actual numbers instead of adjectives, such as when claiming something is "typical," "rare," or "prevalent"; and
7. Comparison to compare explicitly the results across different settings, groups, or events.

Sandelowski W & Barroso J (2007:228) categorized validity onto four types as follows;

- Descriptive validity refers to the factual accuracy of data. This means the identification of all relevant research reports and the accurate identification and characterization of information from each report included in the study.
- Interpretive validity, type of validity refers to descriptions of member checking or respondent validation
- Theoretical validity refers to the credibility of researchers' interpretations, meaning the credibility of the (a) methods the researcher as a reviewer developed to produce integrations and to the (b) research integrations themselves, or the interpretation of researchers' findings.
- Pragmatic validity refers to the utility and transferability of knowledge and this refers to the applicability, timeliness, and translatability for practice of the research integrations, or evidence syntheses, you produce.

This study used evidence based on the response processes. For example, the evidence based was focused on analysis of performance of pupils during and after the lessons and analysis of performance of methods used by teachers in assessing pupils.

3.9.2 Reliability

According to Kirk and Miller (1986:20) reliability is defined as “the degree to which the finding is independent of accidental circumstances of the research”. The reliability of research entails “whether or not (or under what conditions) the researcher would expect to obtain the same findings if he or she tried again the same way”. A measurement is reliable if it yields the same answer on different occasions. The same data, when collected and analyzed by different researchers using the same method, ought to generate the same findings, irrespective of who carried out the research (Willig, C., 2008:16). McMillan and Schumacher (2010: 179) define reliability as the consistency of measurement the extent to which the results are similar over different forms of the same instrument or occasions of data collection and have categorized reliability into five types as follows;

- Stability which is obtained by correlating scored from the same test on two different occasions of a group of individuals
- Equivalence is when two equivalent or parallel forms of the same instrument are administered to a group at the same time, and the scores are related, the reliability that results is a coefficient of equivalent
- Equivalent and stability is when the researcher needs to give a pretest and posttest to assess a change in behavior, a reliability coefficient of equivalent and stability is established.
- Internal consistency is a type of reliability which is estimated from giving one form of a test once.
- Agreement is established by determining the extent to which two or more persons agree about what they have seen, heard or rated.

Reliability is essential requirement that the application of valid measuring instrument to different groups under different sets of circumstances should lead to the same observation and according to Mouton J,& Marais, HC.,(1996:79) reliability of observation of data is influenced by four variables that include: the researcher(s), the individual who participates in the research project (participants), the measuring instrument and the research context or the circumstances under which the research

is conducted. Joppe (2000:1) continues to define reliability as the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable.

This study used pilot testing of the questionnaire before using them. The sample of 10 participants with characteristics similar to those used in the study conducted the test.

3.9.3 Ethical consideration

According to McMillan and Schumacher, (2001:196) ethical principles guidelines have been published for planning and conducting research in such a way as to protect the rights and the welfare of the subjects. They define ethics of research as beliefs about what is right or wrong, proper or improper, good or bad. Research ethics deals primarily with the interaction between researchers and the people they study (Natasha et.al, 2005:8). They further give three core principles of research ethics as;

- Respect for persons which requires a commitment to ensuring the autonomy of research participants, and, where autonomy may be diminished, to protect people from exploitation of their vulnerability
- Beneficence requires a commitment to minimizing the risks associated with research, including psychological and social risks, and maximizing the benefits that accrue to research participants. Researchers must articulate specific ways how this will be achieved.
- Justice requires a commitment to ensuring a fair distribution of the risks and benefits resulting from research. Those who take on the burdens of research participation should share in the benefits of the knowledge gained.

According to Carla, (2008:19) there are the same basic ethical considerations apply to the treatment of participants in both qualitative and quantitative research. These include;

- Informed consent. The researcher should ensure that participants are fully informed about the research procedure and give their consent to participate in the research before data collection takes place.
- No deception. Deception of participants should be avoided altogether. The only justification for deception is when there is no other way to answer the research question and the potential benefit of the research far exceeds any risk to the participants.
- Right to withdraw. The researcher should ensure that participants feel free to withdraw from participation in the study without fear of being penalized.
- Debriefing. The researcher should ensure that, after data collection, participants are informed about the full aims of the research. Ideally, they should also have access to any publications arising from the study they took part in.
- Confidentiality. The researcher should maintain complete confidentiality regarding any information about participants acquired during the research process.

However, Brinkmann and Kvale (2008:20) caution against the practice of ethics as rule following. They suggest that ethical issues and concerns cannot be addressed and 'solved' once and for all during the planning stages of the research. Rather, ethical dilemmas will surface throughout the research process, requiring the researcher to remain ethically attuned throughout.

This research used the following ethical consideration in the study:

3.9.4 Confidentiality, anonymity and privacy

Most researchers obtain permission to enter the field so as to give assurances of confidentiality and anonymity and describe the intended use of the data (McMillan & Schumacher, 2001:421). This gives no harm to the subjects. The researchers use imaginary locations and disguise features of settings in such a way as to make them appear similar to the possible sites. People's names and places are coded for confidentiality and to protect privacy. However, Maggi and Major, (2010:21) state that it has become a default position that researcher from all disciplines must offer participants confidentiality and anonymity even though in practice this can be problematic to achieve. Confidentiality is also based on the idea that research

participants are in some way vulnerable and less powerful than the researcher, and that consequently they need ‘protection’. Yet confidentiality is not always as important for participants as we might think. The notion that participants are vulnerable is a patronizing assumption not made in other areas of professional life. Yu as cited in Maggi and Major, (2010:21) give examples of journalism, who make comments are normally named, and confidentiality is granted by exception. He points out that participants in qualitative research studies, such as teachers and lecturers in educational research, are far from ‘vulnerable’

All the information got from the participants during this study was kept private. The presentation of the results will be done in manner to protect the identity of the participants. Field notes will be destroyed after data analysis

3.9.5 Informed consent and voluntary participation

In this study, the researcher made contacts with the participants at their respective schools and presented information related to the study. The researcher got informed consent from the participants and assurance of voluntary participation. Maggi and Major, (2010:22) asserts that rigid focus on gaining ‘informed consent’ from research participants can have the effect of undermining trust of participants in the researcher and the research process. Informed consent, as explained by Johnson and Christensen (2004: 102), is approval to participate in a study after being informed of its purpose, procedures, risks, benefits, alternative procedures and limits of confidentially. It is now common to ask participants in any kind of social research to sign a consent form. This is a defensive and quasi-legal means of trying to ‘protect’ the university, and to some extent the researcher, from litigation or other accusations of wrongdoing. Grayson and Myles as cited in Maggi and Major, (2010:22) continue to state that researchers have found that demanding someone to read and sign consent forms can make them suspicious and even sometimes unwilling to participate and consent forms can have negative consequences for quantitative researchers too. Here, the requirement to include elaborate and legalistic statements is said to damage response rates, which in turn can have a deleterious effect on the extent to which tests for statistical significance can be relied on.

3.10 Subjects

The participants in this study were teachers in the selected primary schools in Kamwenge. The researcher held a meeting with them in their respective schools and obtained the teachers consent. Questionnaires were distributed and interview schedules drawn. The participants were requested to fill the questionnaires and the day for collecting the filled questionnaires was decided upon. The researcher agreed to provide the participants with the final analysis with the data obtained.

3.11 Pilot study

According to McMillan and Schumacher (2001:185), the researcher is expected to find a small sample of individuals that is similar to those who will be used in the actual study and administer the instrument to them. They continue to say that revise, delete and add items where necessary, depending on the feedback from the sample subjects in the pilot test.

3.11.1 Qualitative pilot study

The qualitative pilot study conducted to ten participants (Teachers) in two primary schools with similar characteristics to those used in the study. Pre-interviews were conducted to test the research phrasing of questions.

3.11.2 Quantitative pilot study

The quantitative pilot study was conducted to ten participants in two different schools from the ones qualitative research was conducted, which had characteristics to those in the study. Questionnaires were conducted to teachers so as to improve the construction of appropriate questions.

3.12 Summary

The main focus of this chapter three is to outline the methodological process the researcher choose in order to produce and analyze data to measure learners' assessment in overcrowded classrooms. The researcher used questionnaires (Quantitative technique) and conducted semi – structured interviews (Qualitative technique) in the procedure.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

In this chapter, the results of the study are presented. The study used a mixed research methods of quantitative and qualitative. During quantitative data collection two questionnaires were used. The respondents who were teachers completed the forms by filling and the researcher retrieved them. The data was analyzed statistically using frequency distribution tables. The two questionnaires were analyzed separately and a matrix was drawn. In the qualitative data collection, the researcher compiled the findings from the semi-structured interviewed conducted. The data was processed by transcribing all the interviews and analyzing the findings according to the different numbers.

4.2 Responses from the participants

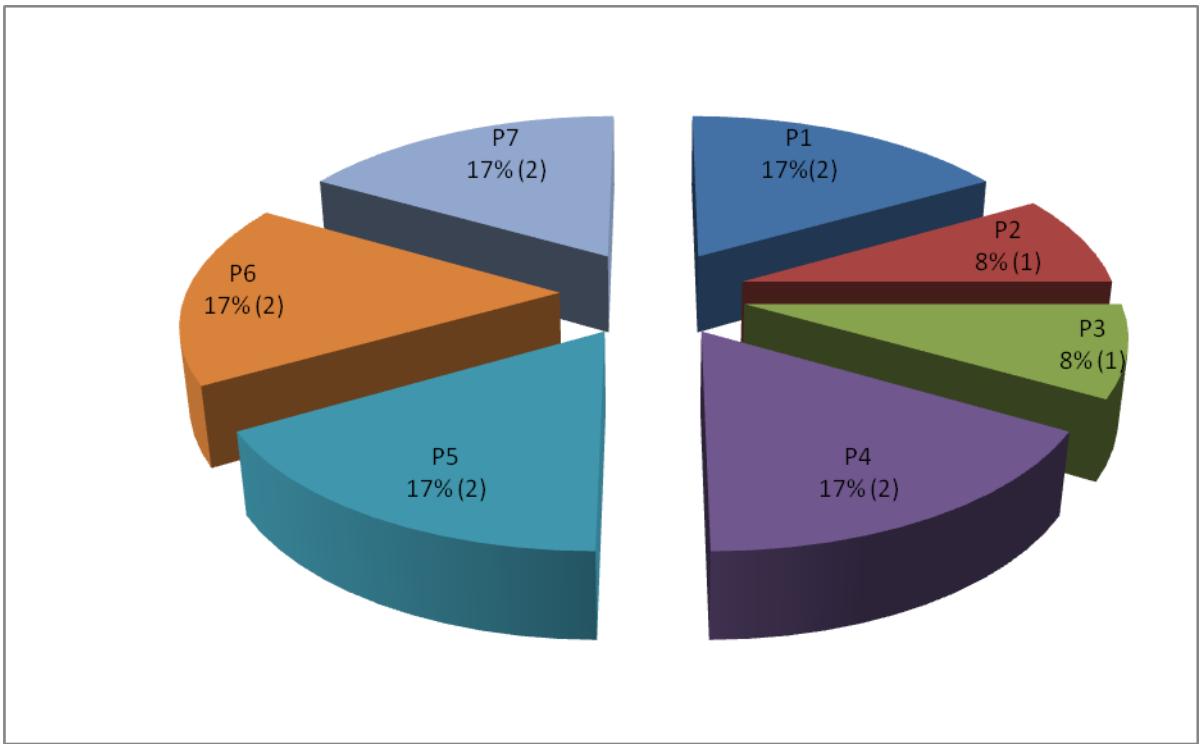
The study shows that 12 teachers completed the 2 different questionnaires which tried to establish their perception of classroom assessment before the lesson observations and teachers' perception of classroom assessment practice. The teachers were teaching a range of subjects which included; Mathematics, English, Social Studies and Science in the different classes of primary one up to seven. The raw data was tabulated in the data sheet using the coded values then constructed on a spread sheet. The frequency distribution tables were used to analyze data.

4.2.1 Distribution of teachers

i) Distribution by classroom

Figure 4.1 illustrate how teachers filled questionnaires

Figure 4.1: Distribution of Teachers who filled the form according to classrooms



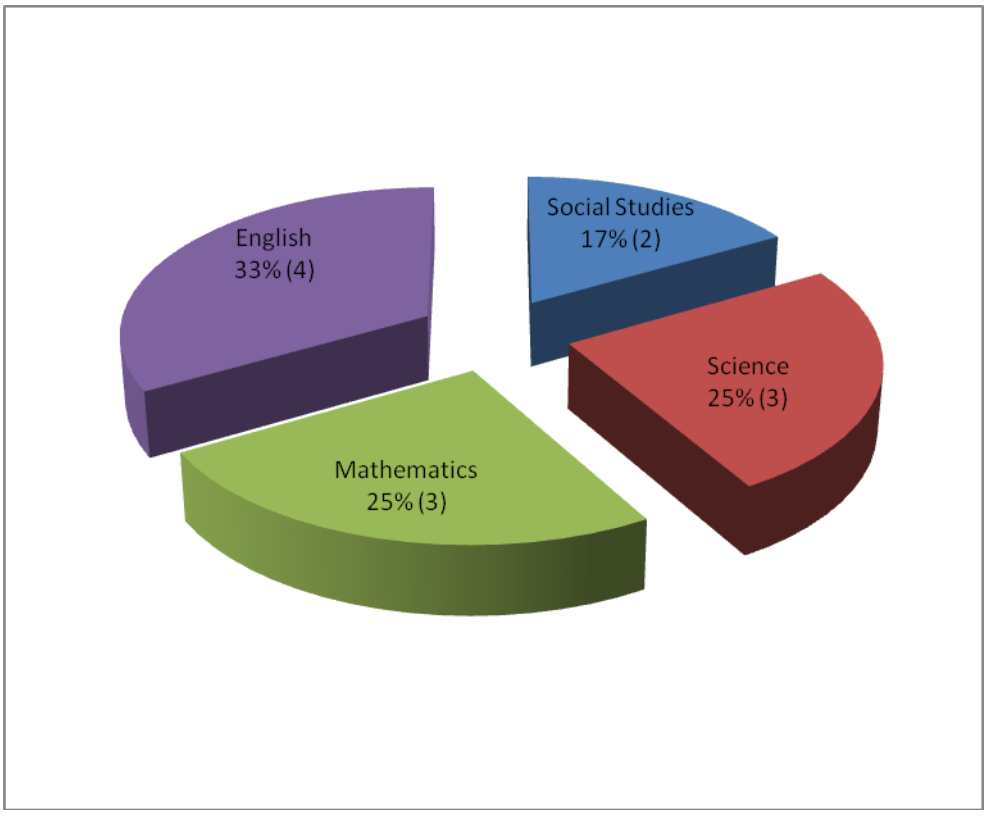
The findings reveal that Teachers in p.1, p.4, p.5, p.6 and p.7 each filled 17% while teachers in p.2 and p.3 each filled 8%. All (100%) the forms were returned.

4.2.2 Distribution by Subject

Figure 4.2 illustrates the distribution of teachers by subjects

Figure 4.2 shows that majority (33.3%) of the forms filled were for teachers teaching English Language, followed by teachers teaching Mathematics and Science (25%). teachers teaching Social Studies reported the least (16.7%) of the filled forms.

Figure 4.2: Distribution of Teachers by subjects



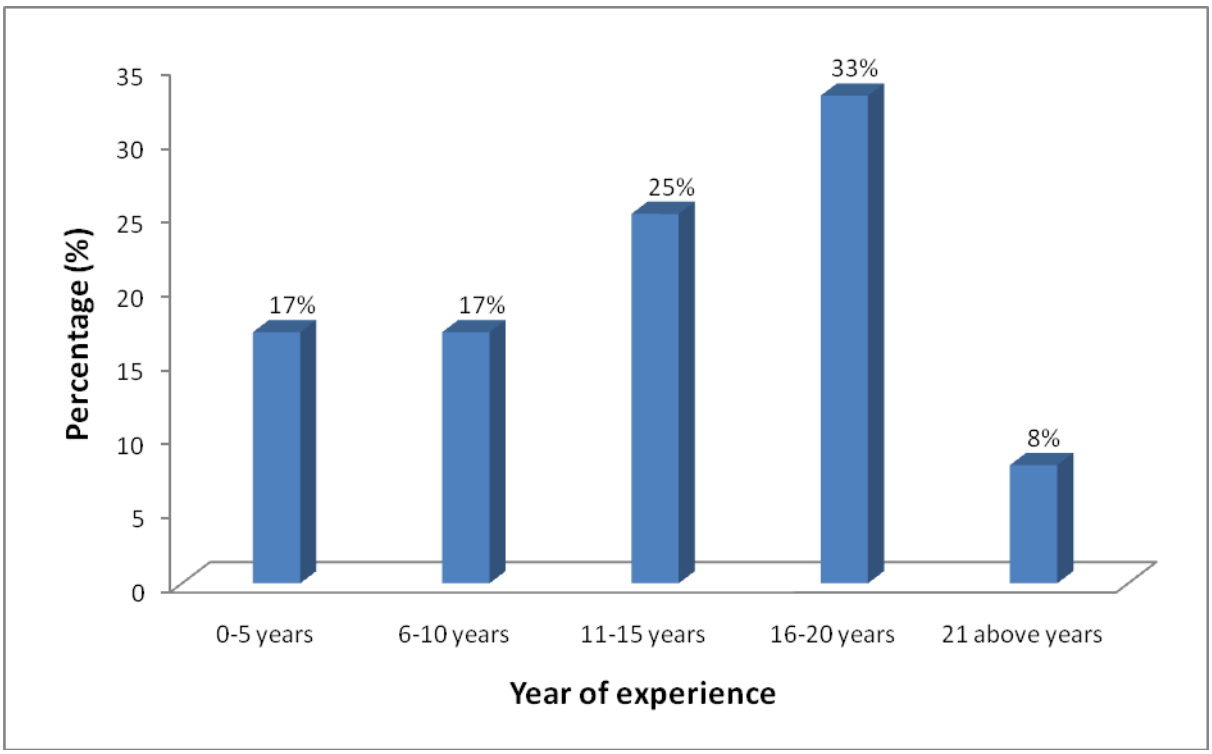
The findings show that majority (33.3%) of the forms filled were for teachers teaching English Language, followed by teachers teaching Mathematics and Science (25%). teachers teaching Social Studies reported the least (16.7%) of the filled forms.

4.2.3 Teachers experience

Figure 4.3 illustrates the trend of teachers' experience

It is clear from figure 4.3 that most (33%) of teachers had served for 16-20 years, followed by those with 11-15 year experience (25%). Only 8% of the teachers in the study had a teaching experience of above 21 years.

Figure 4.3 Trends of teachers' experience



The findings show that the respondents had a varying age of experience arranging from 1 year to 21 years and above. The majority (33%) ranged from 16 – 20 years followed by (25%) of range 11 -15 years.

4.2.4 Teachers' understanding of assessment

Item 4 on the questionnaire required the teachers to mark a statement that best defined classroom assessment as they used classroom assessment in their classes. The table 4.1 below illustrates Responses from the participants on teachers' perception of classroom assessment

Table 4.1: Distribution of teachers' perception of assessment

Category	Frequency	Percentage
A process of administering test to pupils for grades and reports to parents & Head teacher.	8	66.7%
A process that helps a teacher to promote pupils from one class to another.	2	16.7%
Refers to all tests a teacher gives at the end of topic or item.	0	0%
A tool a teacher uses to inform teaching and learning.	2	16.7%
Total	**12**	**100%**

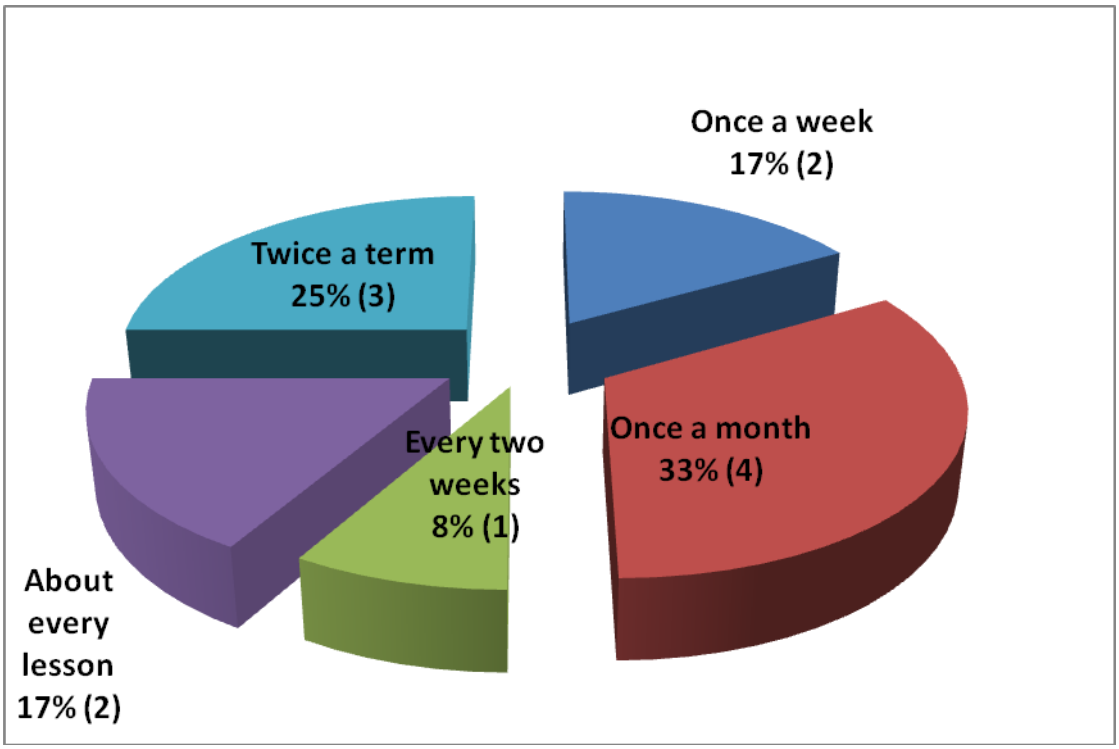
Table 4.1 illustrates perceptions respondents have towards on assessment. The majority of respondents (66.7%) generally agreed on the following perceptions on Assessment: A process of administering test to pupils for grades and reports to parents & Head teacher. While 16.7% of the respondents agreed that it's a tool a teacher uses to inform teaching and learning and another 16.7% of the respondents agreed that assessment is a process that helps a teacher to promote pupils from one class to another. The respondents gave their perception of assessment as either summative or formative. It is possible that an assessment that is primarily designed to be summative may also be considered formative if feedback on student performance is given as well as a mark for the assessment. It is rare for an assessment task to be purely 'summative' or purely 'formative' and the challenge is to try to obtain the correct balance of formative and summative assessment to

maximise student learning and achievement. Summative assessment focuses on the outcomes of an instructional program or performance improvement intervention. It answers the question, "Has the problem been solved?" (Seels & Glasgow, 2001:313). Formative assessment is designed to provide feedback to students and instructors for the purpose of the development of teaching and learning. However, if used in an effective manner, formative assessment can help students to be more autonomous in their learning and to reflect on their performances and take responsibility for their academic growth (Brown and Knight, 1999:38).

4.2.5 Occurrence of assessment

Item 5 that requested teachers show how often the carried out assessment. Figure 4.4 shows the frequency assessment done by teachers.

Figure 4.4: Frequency of teachers' assessment



The responses from teachers show that most (33.3%) teachers' assessment was done once a month. 25% of the teachers carried out assessment twice a term, 16.7% of the teachers carried out assessment once a week and about every lesson, and 8.3% of the teachers carried out assessment every two weeks. According to

APS Group Scotland, (2011:23) the central purpose of assessment is to support learning and this is best achieved by a combination of formative and summative assessment. This means assessing learning both in an ongoing way and by 'stepping back' at regular intervals to take stock of learners' progress and achievements. Teachers can assess as part of ongoing learning and teaching process, periodic (from time to time) and on transitions (APS, 2011: ii). Furthermore, Adrian Tennant, states that assessment should take place at every stage of the learning process and that it should be fairly frequent. Of course, there are many different forms of assessment. So, at the start of a course some form of diagnostic assessment should take place to see how much students know. This can then be used as a form of 'benchmark' used later on to see how much progress has been made. Throughout a course various forms of assessment can be used, from homework, project work, in class activities to more formal tests.

4.2.6 Usefulness of assessment to Teachers and Students

Figures 4.5 & 4.6 illustrate usefulness of assessments to teachers and students.

Figure 4.5: Usefulness of assessment to Teachers

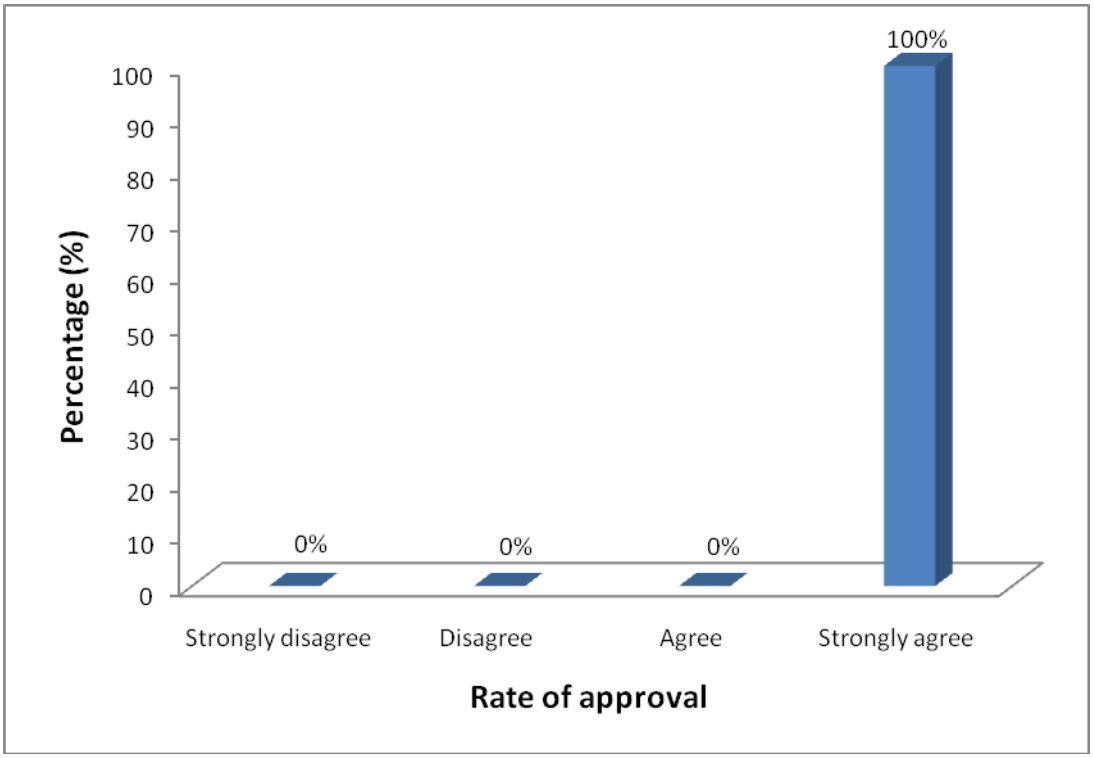
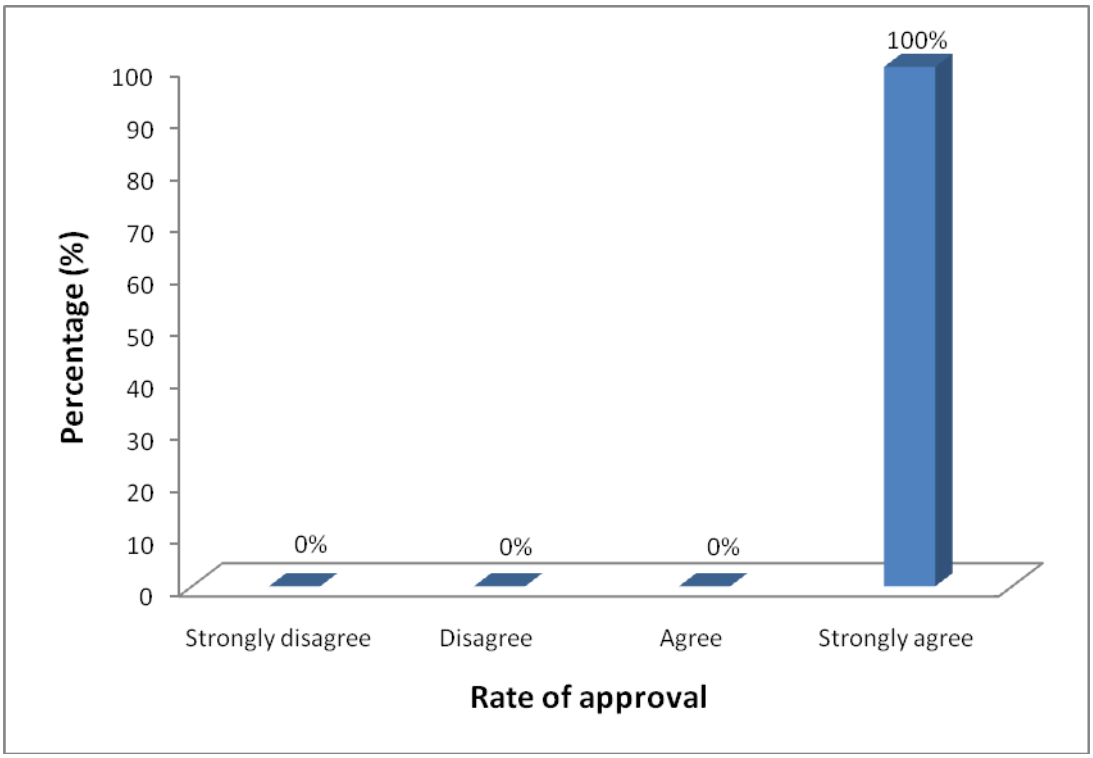


Figure 4.6: Usefulness of assessment to Students



All (100%) teachers strongly agreed that assessment is useful to them and their students. Assessment plays many roles in education. A single assessment can serve multiple, but quite distinct, roles. For example, results from a selection test can sometimes be used to guide instruction, while a portfolio of learner work culled from assessments conducted during a course of study can inform a decision about whether the learner should obtain a certificate of completion or a degree. The data from an assessment can be used to choose a program of study or a particular course within a program. Other assessments provide information that can be used by the learner, teacher, or parents to track learner progress or diagnose strengths and weaknesses. Finally, assessments can determine whether learners obtain certificates or other qualifications that enable them to attain their goals (Braun, H., Kanjee, A., Bettinger, E., & Kremer, M., (2006:18).

4.2.7 Feedback provided by the teachers

Table 4.2 illustrates a variety of types of feedback teachers provided their students.

Table 4.2: Teachers' feedback mechanisms

Category of feedback	Frequency	Percentage (%)
Giving praises like "thank you" "good" to the students	2	16.7
Writing marks obtained in their exercise books	2	16.7
Recording marks on a progress chart and putting it in class for everybody to see	1	8.3
Making other students to clap hands for students who have correctly responded to teachers questions.	1	8.3

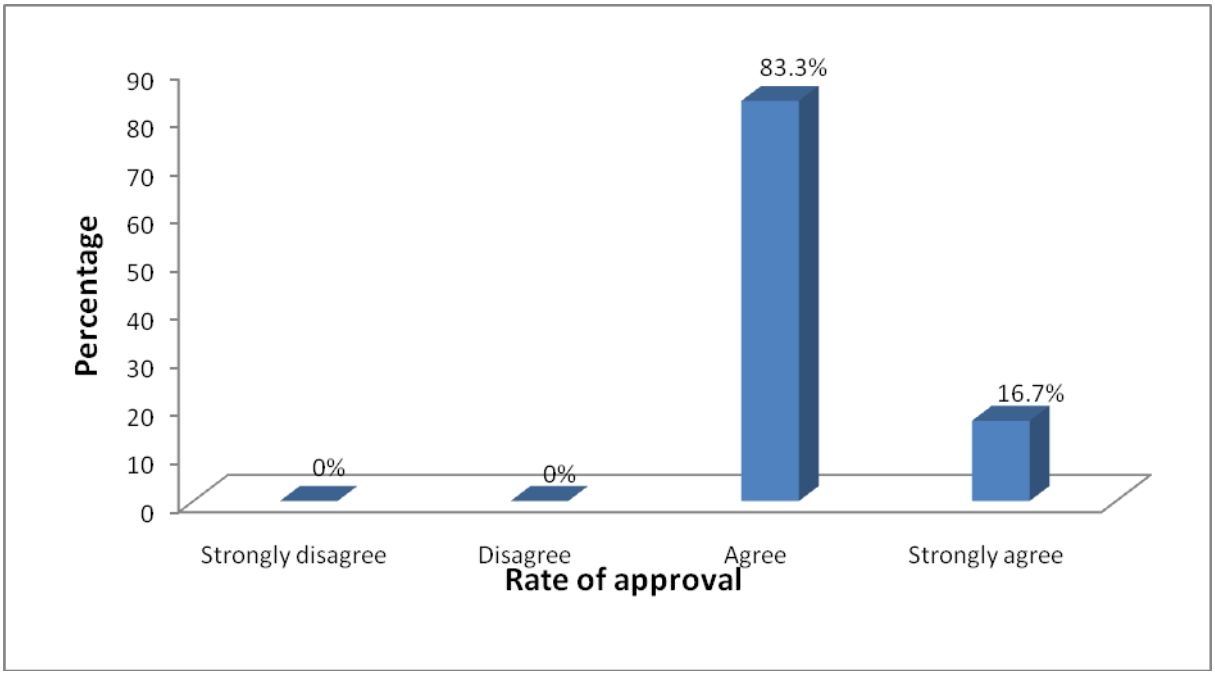
Ticking the correct responses in the exercise books.	4	33.3
Requesting the students to do corrections where they wrote wrong responses.	1	8.3
Going over the correction together with students.	1	8.3

Table 4.2 shows that 33.3% of the teachers tick students exercise books as a feedback, 16.7% of the teachers give praises like “good, thank you” to students and write marks in the students exercise books, while 8.3% of the teachers either record marks of students on a progress chart, or make other students to clap hands for their colleagues or requests students to do corrections or go over the corrections together with students. Black, P.J. and Wiliam, D. (1998:67) linked assessment and learning and found that improving learning through assessment depends on the provision of effective feedback to pupils. Teachers should involve pupils, in the provision of information in form of feedback, about how well they are doing and guide their subsequent efforts.

4.2.8 Students’ assessment in teachers’ preparations and planning

Figure 4.7 illustrate students’ assessment as reflected in teachers’ preparations and planning

Figure 4.7: Use of students’ assessment in Teachers’ Preparations and Planning



Clearly all teachers (83.3% agree & 16.7% strongly agree) agree to a certain extent that they include students' assessment in their preparation and planning.

4.2.9 Classroom assessment practices

Table 4.3 illustrates the response of classroom assessment on a four point scale: Never, Sometimes, Frequently and Always.

Table 4.3: Summary of classroom assessment

SN	Items	Never	Sometimes	Frequently	Always
1	I design my lessons to allow me to monitor pupils' progress	0	8.3%	66.7%	25%
2	My instructional strategies and activities reflect attention to issues of access, equity and diversity for pupils	0	16.7%	75.0%	8.3%
3	The design of my lessons incorporate tasks, roles, and interactions	0	16.7%	75.0%	8.3%
4	I probe pupils' reasoning	0	16.7%	83.3%	0%
5	The instructional strategies and activities I use reflect attention to pupils' experiences and readiness	0	16.7%	58.3%	25%
6	I provide adequate time and structure for reflection	0	75.0%	25.0%	0%
7	I interact with my pupils	0	0.0	100.0%	0
8	I encourage my pupils to talk and share ideas	0	41.7%	58.3%	0
9	I give pupils immediate feedback when they need directions to proceed	0	41.7%	58.3%	0
10	I take into account prior knowledge of my pupils	0	0.0	66.7%	33.3%

11	I make sure the pace of the lesson is appropriate for the developmental level/ needs of the pupils and the purpose of the lesson	0	66.7%	33.3%	0
12	My questioning strategies are likely to enhance the development of pupils conceptual understanding/problem solving	0	0.0	100.0%	0
13	My lessons progress based on pupils' responses	0	50.0%	50.0%	0
14	The in class activities consolidate the main ideas of the lesson	0	0.0	100.0%	0
15	I identify pupils who have difficulties in understanding the main ideas of the lesson	0	75.0%	25.0%	0

The Table 4.3 above reveals that there were items with strong and weak agreement as follows;
Items with strong agreement:

- I tem 1 (I design my lessons to allow me to monitor students' progress) 67% of the teachers frequently and 25% teachers always carried it out.
- Item 2 (My instructional strategies and activities reflect attention to issues of access, equity and diversity for students) 75% of the teachers frequently and only 8% always carried it out.

- Similarly, item 3 (The design of my lessons incorporate tasks, roles, and interactions) 75% of the teachers frequently and only 8% teacher always carried it out.

- Item 7 (I interact with my students) all (100%) of the teachers frequently carried it out.

- Item 10 (I take into account prior knowledge of my students) 67% of the teachers frequently and 33% teachers always carried it out.

- Item 12 (My questioning strategies are likely to enhance the development of pupils conceptual understanding/problem solving) all (100%) of the teachers frequently carried it out.
- Likewise, Item 14 (The in class activities consolidate the main ideas of the lesson) (100%) of the teachers frequently carried it out.

Items with weak agreement:

- Item 6 (I provide adequate time and structure for reflection) 75% and 25% of the teachers sometimes and frequently carried it out respectively.
- Item 8 (I encourage my students to talk and share ideas) 42% and 58% of the teachers sometimes and frequently carried it out respectively.
- Similarly, Item 9 (I give students immediate feedback when they need directions to proceed) 42% and 58% of the teachers sometimes and frequently carried it out respectively.
- Item 11 (I make sure the pace of the lesson is appropriate for the developmental level/needs of the students and the purpose of the lesson) 67% and 33% of the teachers sometimes and frequently carried it out respectively.
- Item 13 (My lessons progress based on students' responses) 50% teachers sometimes and 50% teachers frequently carried it out.
- Item 15 (I identify students who have difficulties in understanding the main ideas of the lesson) 75% and 25% of the teachers sometimes and frequently carried it out respectively.

Teachers in the rural and urban schools conducted their lessons almost in the same way; this was the same in all classes. Teachers mainly used teacher centred methods and encouraged chorus answers from the students. There was a clear inconsistency between what the teachers said they do and what they practiced in the classroom. The responses that teachers gave before lesson observation suggest that they have the theoretical knowledge but fail to put the theory into practice. This could be a result of student teachers while in the Collage are encouraged to practice on an ideal situation, and when they graduate, they face the reality alone without any support. Susuwele and Wilkins (2002:10) report states that pre-service education seems to be a major contributing factor to performance of teachers and lack of in-service training.

4.3 Lesson observed from the classrooms

The researcher observed lesson from the classroom. This section presents the findings from the individual teachers' lesson made from classrooms. The observations include classroom context, description of the lesson observed, and ways of students' engagement in the classroom and activities of students in the lesson.

Table 4.4 illustrates the rating of the classroom environment, space and room arrangement

Table 4.4: Rating the adequacy of the classroom environment

Item	Rating				
	1	2	3	4	5
Classroom resources (Sparsely – equipped rich resourced)		x			
Classroom space (Crowded – adequate spaced)		x			
Room arrangement (Inhibited interaction – facilitated interaction)		x			

The Table 4.4 above shows that all the classrooms (100%) are sparsely resourced, the classroom space was crowded and the classroom arrangements inhibited interaction among the students during the lessons. The classroom is the heart of any educational system. No curriculum planning is complete without implementation and evolution, both of which are mainly carried out in the classroom. Most of the class activities take place while students are seated. The seating arrangement is therefore too important to suffer the kind of neglect being experienced. Cohen and Manion (1983:221) observe that "a careful attention to seating arrangement contributes as effectively as any other aspect of classroom management and control to overall success with a class subsequently". Furthermore Adesina (1990:13) also affirms that one potent index for evaluating educational standards and quality is an examination of the physical facilities available for learning experiences". Stufflebeam, (2003:215) on the components of CIPP model focuses on the collection of four different type of data to inform the decision of the organizational administrators, emphasized on the utilization of resources to achieve the desired goals. Furthermore, Cohen et al. as cited in Vivan Tseng and Edward Seidman, (2007:221) state that availability and quality of resources certainly matter for setting outcomes and classroom space is important for effective teaching and learning to take place. The overcrowding large classes' results from the UPE policy on education has lead to classes of over 80 pupils. The advent of UPE has led to swollen classrooms that result in discipline problems, overloaded teachers and a resources constrained environment where

there are inadequate resources such as suitable textbooks and a high pupil to teacher ratio. The class size automatically gives much workload to the teachers to prepare lessons, teach them and mark assigned work if any, which is set at a minimum.

4.3.1 The description of the lessons observed is as follows:

Lesson observation tool was used to observe 36 lessons (i.e. 3 lessons from each teacher). The analysis of the major ways students' activities were structured, ways how students were engaged in the class activities and activities of students in the lessons was done. The average observation was rated on each teacher for every item and figure 4.8 illustrates the structure of the activities.

Figure 4.8: Structuring of activities

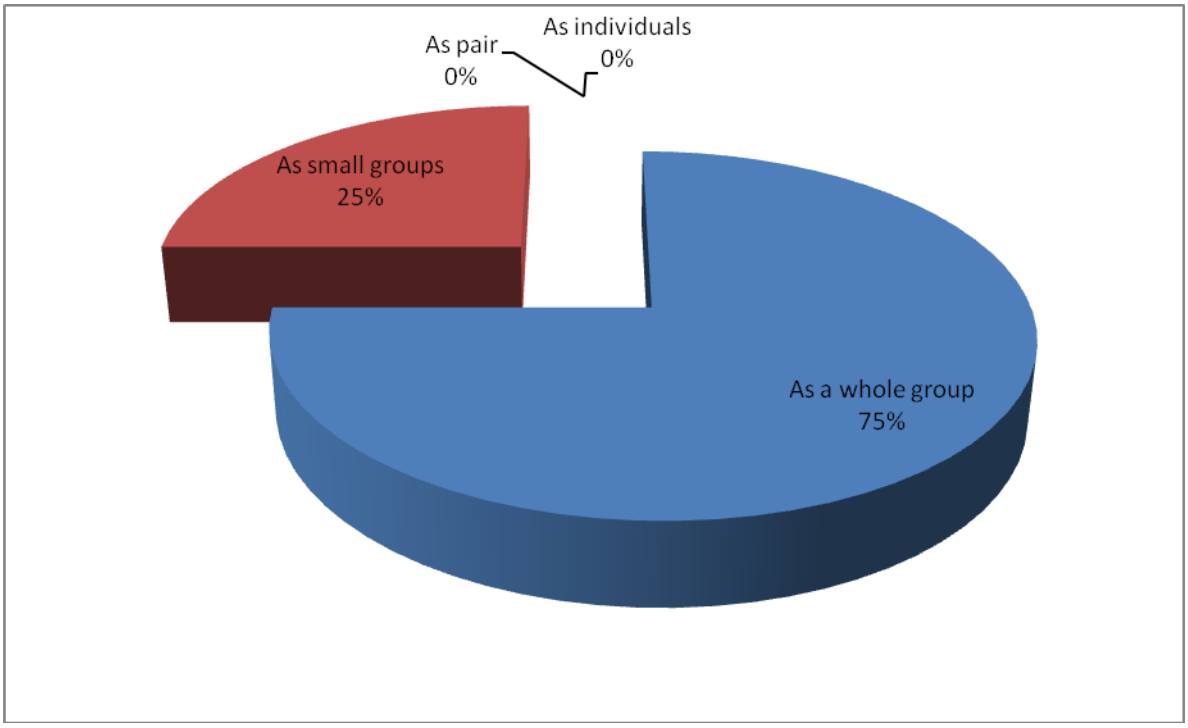


Figure 4.8 depicts that 75% of the structured classroom activities were organized as a whole group, while 25% were organized in small groups.

Table 4.5: Students engagement in class activities

Item	Frequency	Percentage (%)
Entire class engaged in the save activity at the same time.	12	100
Groups of students engaged in different activities at the same time.	0	0
Total	**12**	**100**

The table 4.5 reveals that there are no activities that engage students in groups. This could be due to overcrowding, which results into teachers' inability to give individual attention to students, inadequacy of instructional materials and furniture as shown in figure 4.4, and avoiding excessive marking and correction of pupils' work. The Table 4.5 shows that all the classes observed were engaged in the same activity at the same time.

Figure 4.9: Major students' activities in lessons

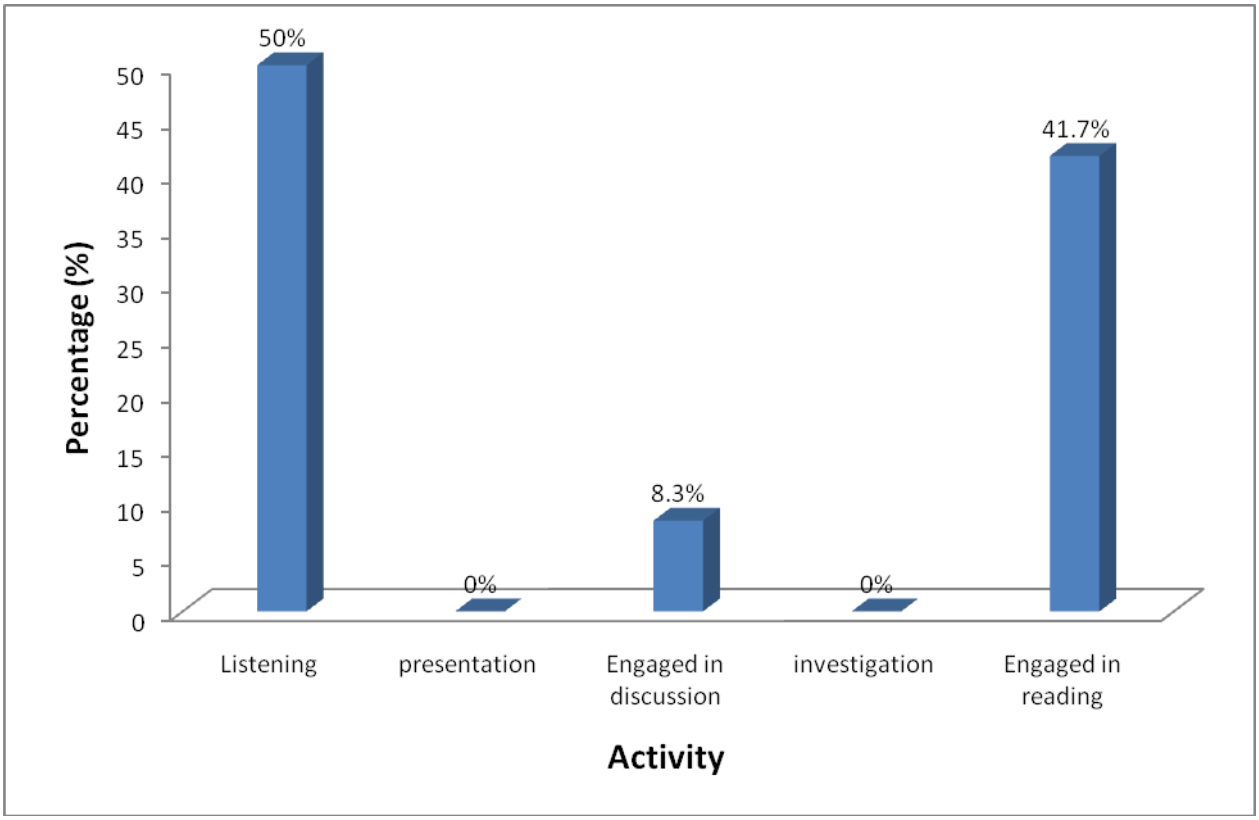


Figure 4.9 shows that 50% of the students do listening, 41.7% are engaged in written communication and only 8.3% of the students are engaged in discussions.

This study revealed that these teachers had limited ways and methods of assessing their students. These teachers mainly used tests to assess their students. Although teachers gave individual exercises toward the end of every lesson, the exercises were given to the students to practice and consolidate what the teacher had just demonstrated. When teachers place meaningful assessment at the center of instruction, they give students insights into their own thinking and growth, and students gain new perspectives on their potential to learn. A move from testing for achievement to assessing how students are learning (assessment for learning) would help the teacher explore better ways of supporting the students in learning. Assessment for learning helps the teacher not only to understand the teaching and learning process but also to be able to support learning meaningfully. Assessment for learning informs the teachers about what students are able or not able to do. In this study the teachers displayed limited understanding and use of classroom

assessment. Properly managed classroom assessment is likely to empower students to monitor and assess their learning; it can guide both teaching and learning, and can facilitate good working relationship between the teacher and the students. In this study the use of classroom assessment as a tool for learning was limited. Classroom assessment needs to be part of a day-to-day teaching and learning. It should not be seen as an add-on activity. Assessment generally has a strong implication on the teachers and according to ARG, (2006:13) it states the following implications;

- Ensure that assessment is always used to help learning and that, when a summative assessment report is needed, the best evidence is reliably judged against relevant criteria.
- Involve pupils in self-assessment of ongoing work and help them to understand the criteria used in assessing their work for reporting purposes and how summative judgments are made.
- Take part in moderation of summative judgments and other quality assurance procedures.
- Use tests only when most appropriate, not as routine.

Teaching in large classes teachers provide fewer exercises and practice so as to reduce the amount of marking to do. There is also limited space to conduct group work that would enhance effective coverage of content. Furthermore, engaging students in developing assessment exercises, creating scoring criteria, applying criteria to student products and self assessment all help students understand how their own performance is evaluated. This understanding facilitates student motivation and achievement (stiggins, 2002:761)

Table 4:6 gives the overall ratings on the key assessment indicators. The ratings were rated from 1 (Not at all evidence) to 4 (Greater evidence) as follows;

Table 4.6: Average ratings of Key Assessment Indicators

SN	Assessment indicators	Tr 1	Tr 2	Tr 3	Tr 4	Tr 5	Tr 6	Tr 7	Tr 8	Tr 9	Tr 10	Tr 11	Tr 12
1	I design my lessons to allow me to monitor pupils' progress	2	1	2	2	1	1	2	1	1	3	1	1
2	My instructional strategies and activities reflect attention to issues of access, equity and diversity for pupils	1	1	2	1	2	1	1	1	2	2	1	1
3	The design of my lessons incorporate tasks, roles, and interactions	2	1	1	2	2	1	3	2	1	1	1	2
4	I probe pupils' reasoning	1	1	1	1	1	2	1	1	1	2	1	1
5	The instructional strategies and activities I use reflect attention to pupils' experiences and readiness	1	2	1	2	1	1	1	2	2	1	1	2
6	I provide adequate time and structure for reflection	1	1	1	1	1	1	1	2	1	1	1	1
7	I interact with my pupils	2	3	2	2	2	2	3	2	2	2	2	3
8	I encourage my pupils to	1	1	1	2	1	1	1	1	2	1	1	1

	talk and share ideas												
9	I give pupils immediate feedback when they need directions to proceed	1	1	2	1	1	1	1	2	1	1	1	1
10	I take into account prior knowledge of my pupils	3	2	3	3	3	2	2	2	3	2	3	3
11	I make sure the pace of the lesson is appropriate for the developmental level/needs of the pupils and the purpose of the lesson	2	2	2	2	2	2	2	2	2	2	2	2
12	My questioning strategies are likely to enhance the development of pupils conceptual understanding/problem solving	2	2	3	2	2	3	2	2	2	2	2	3
13	My lessons progress based on pupils' responses	1	1	1	1	1	1	1	1	1	1	1	1
14	The in class activities consolidate the main ideas of the lesson	2	2	3	2	2	2	2	2	2	2	3	2
15	I identify pupils who have difficulties in understanding the main ideas of the lesson	1	1	1	2	1	1	1	1	1	1	1	1

16	Pupils had chance to ask questions	2	3	2	2	3	3	2	3	3	3	2	2

Key

1 – Not at all

2 – Some evidence

3 – Clear evidence

4 – To greater extent

Tr - Teacher

The table 4.6 above shows the following;

Indicators where there is some and clear evidence:

- Indicator 7 (I interact with my students) 9 teachers (75%) had some evidence and 3 (25%) had clear evidence
- Indicator 10 (I take into account prior knowledge of my students) 5 (41.7%) teachers had some evidence and 7 teachers (58.3%) had clear evidence
- Indicator 12 (My questioning strategies are likely to enhance the development of students conceptual understanding/problem solving) 9 teachers (75%) had some evidence and 3 teachers (25%) had clear evidence
- Indicator 14 (The in class activities consolidate the main ideas of the lesson) 10 teachers (83.3%) had some evidence and 2 teachers (16.6%) had clear evidence
- Indicator 16 (Students had chance to ask questions) 6 teachers (50%) had some evidence and 6 teachers (50%) had clear evidence

This suggests that teachers were taking into account students' prior knowledge; the questioning strategies enhanced the development of students' conceptual understanding. Students interacted with teachers and the in class activities consolidated the main ideas of the lesson and students were given a chance to ask questions

Indicators where there is no evidence and some evidence:

- Indicator 2 (My instructional strategies and activities reflect attention to issues of access, equity and diversity for students) 8 teachers (83.3%) had no evidence and 4 teachers (16.6%) had some evidence
- Indicator 4 (I probe students' reasoning) 10 teachers (83.3%) had no evidence and 2 teachers (16.7%) had some evidence
- Indicator 6 (I provide adequate time and structure for reflection) 11 teachers (91.7%) had no evidence and only 1 teacher (8.3%) had some evidence
- Indicator 8 (I encourage my students to talk and share ideas) 10 teachers (83.3%) had no evidence while 2 teachers (16.7%) had some evidence
- Indicator 9 (I give students immediate feedback when they need directions to proceed) 10 teachers (83.3%) had no evidence while 2 teachers (16.7%) had some evidence
- Indicator 13 (My lessons progress based on students' responses) all the 12 teachers (100%) had no evidence
- Indicator 15 (I identify students who have difficulties in understanding the main ideas of the lesson) 11 teachers (91.7%) had no evidence and only 1 (8.3%) had some evidence

This suggests that there is in-adequate time for reflection, probing students' reasoning and encouraging students to talk and share ideas. The lessons progress were not based on students responses and students immediate feedback was lacking making it difficult to identify students who had difficulties.

In the lessons that were observed the following were evident:

- There was minimal monitoring of the pupils progress by teachers
- The lessons carried out by teachers were teacher centered which could not allow pupils to discuss and share ideas while working in groups
- The teachers did not apply multiple assessment methods to probe pupils knowledge and reasoning
- There was limited time given to pupils to reflect what was taught

- Teachers lacked the skills of giving pupils immediate feedback during the lesson delivery
- Teachers were not able to give their lesson a pace that could enhance developmental needs of the pupils
- Teachers were not able to use the responses of pupils to determine the progress of the lessons taught
- Pupils with learning difficulties were given no attention as a result could not coup up with other fast learners to understand what the teachers were teaching in class

CHAPTER FIVE

FINDINGS AND RECOMMENDATIONS

5.1 Introductions

In this chapter, the researcher shall give a summary, discuss the findings, draw conclusions, and make recommendation. Twelve teachers in four schools were involved in the study and through questionnaires, class observations, interviews and analysis of records data was collected about these teachers' perceptions, views and practices. Teachers handling classes from primary one to primary seven were

observed three times each when teaching subjects that included Science, English language, Social studies and mathematics. The first section discusses the teachers' perceptions of classroom assessment followed by assessment methods and tools used by the teachers, influence of teachers' perceptions on assessment practices, conclusion, and lastly recommendations for further research. In addition, the chapter will try to answer the central and guiding question "What challenges do overcrowded classes have on effective implementation of assessment in primary schools in Kamwenge district?" The conclusions drawn from the findings will further offer answers to the following research sub-questions in order to understand what happens in the primary school classrooms: How do primary school teachers perceive classroom assessment? What kind of assessment methods and tools do teachers use to assess their students? What is the influence of teachers' perception of classroom assessment on their classroom assessment practices?

5.2. Summary, discussion and conclusions

In light of the findings, this study highlights the plight of most school teachers who are not familiar with handling assessment in large classes. The teachers are concerned about not being trained to handle large classes during their training in the primary teachers' colleges. This brings into focus the nature of the entire teacher preparation programmes being followed, the need to modify practical teacher practices, teacher preparation and educational research to address teacher preparation and assessment programs in teacher education.

5.2.1 How do primary school teachers perceive classroom assessment?

This study revealed that the teachers perceive classroom assessment as tests and they use tests to assess students' learning. Table 4.4 reveals that teachers perceive classroom assessment as a process of administering test to pupils for grades and reports to parents & Head teacher, a process that helps a teacher to promote pupils from one class to another and a tool a teacher uses to inform teaching and learning.

The teachers' perceptions of classroom assessment had influence on their classroom assessment practices. There was very little attempt to understand how the students were learning. The majority of teachers perceive classroom assessment as tests, this means that tests have replaced assessment in classrooms and yet tests are not exhaustive. Tests are given at specific time intervals and in most cases when learning process has already taken place, tests do not divulge what a teacher would want to know about his/her students' progress in learning. Testing cannot guide the teacher to identify difficulties experienced by their students during the learning process. Figure 4.5 and Figure 4.6 show that teachers had agreed that assessment was useful to them and their students so as to inform teaching and learning process. Table 4.3 and Table 4.6 of this study, the teachers planning showed that all the set lesson objectives targeted the students. Teachers in this study assessed in order to rank students and not to identify individual capabilities and weaknesses. However classroom assessment should provide information to teachers for their own self evaluation and the evaluation of their students. Information from assessment should help the teacher to discover areas where students have difficulties and can, therefore, be used to modify teaching methods and strategies in order to support students' learning. The teachers held misconceptions about classroom assessment. This was evident by their inconsistence in responding to related questions on classroom assessment and the mismatch between their perception of classroom assessment and classroom assessment practices. Generally, the teachers perceived assessment as testing. Although tests are part of assessment and could be used to assess students' learning, they do not answer all questions that a teacher would ask about his/her students. A teacher may be interested to find out students' progress in a particular lesson and what knowledge or skills they need in order to progress. A test would not provide such information because tests are normally given at specified time intervals. Teachers that perceive classroom assessment as testing fail to understand the learning potentials and difficulties experienced by their students during the learning process. Generally tests do not give students a chance to improve because the tests are administered after the learning process has taken place.

It is important to note that two broad categories of assessment within classroom assessment exist, and these are assessment of learning and assessment for

learning. Since the teachers mentioned tests as the tools they use to assess their students, one could conclude that the teachers mainly emphasized assessment of learning. Generally, tests are good tools for assessment of learning while other methods and tools such as journal writing, diagnostic interviews and observations are good for assessment for learning. It is important to assess what students have achieved but more important also to assess how they are learning.

In the study carried out by Opolot-Okurut et al. (2005:5) reveals approaches that can be used in institutions to ensure that quality teaching, learning and assessment take place in large classes which include;

- Teachers' continuous development through in-service training, seminars and workshops. This means teachers should be equipped with new skills for handling large classes.
- Hold regular departmental and collegial teacher meetings to share views on students' progress.
- Have students' assessment and feedback on a regular basis. At the same time provide remedial work for the weaker students, if time allows.
- Institute mentoring and coaching teachers: observe teachers, identify their strengths and weaknesses, then have after lesson conferencing with the teachers, then follow-up with mentoring or coaching the teacher on how to get it done better.
- School development strategies include construction of more classrooms, provision of more textbooks, and employment of more teachers outside the payroll.

5.2.2 What kind of assessment methods and tools do teachers use to assess their students?

Table 4.5 discloses that all teachers administered assessment inform of tests. The majority of teachers conducted the tests from once every week, every two weeks, once a month and twice a term. The teachers used mainly tests as assessment methods. Teachers had challenges in assessment, for example one teacher said *"I*

cannot teach and assess all the students as expected because I can't reach all the students due to overcrowding". Teachers were not able to attend to individual differences because of the large classes; distribution of exercise books, excessive marking and correction of pupils' work was a problem and was taking a lot of time. For example, one teacher reported that *"I give just very little work to make marking a bit easy".* The issues that teachers pointed out in this study reinforce the challenges that teachers in the study by Nakabugo et al. (2008) identified when they said that "when teaching in large classes teachers provide fewer exercises and practice so as to reduce the amount of marking to do. There is also limited space to conduct group work that would enhance effective coverage of content". The small classrooms that were earlier built to accommodate 30-40 pupils now accommodate over 80 pupils in some schools and this has lead to overcrowding. The lesson time of 30 minutes is used for administrative chores such as roll call, returning marked and corrected exercise books and the correction of previous work done, which leaves no or little time for the actual teaching and introduction of new content.

In this study teachers showed limited ability to use different methods and tools to assess their students and the classroom assessment practices were not clearly implanted in their teaching process. The purpose of assessment is to facilitate learning through the provision of information about responses to various kinds of test or assignment; students are enabled to more effectively judge their own achievements and what they need to do to learn more effectively within the program (Bound and Falchikov, 2006:401).

In the eyes of many educational professionals, an extraordinary variety of classroom-targeted initiatives has been unleashed on schools over the past decade and more, all with the same general aim: the improvement of pupil learning and assessment by teachers, whether formative or summative, is one of these developments that is considered to offer significant potential for improving pupils' learning. Teachers who integrate assessment into their teaching do so in order to identify where their pupils are in their learning and the steps they need to take for improvement and progress. This is a persuasive rationale for change but the fact remains that changes in assessment practice have been notoriously difficult to sustain.

During assessment the teachers gave a variety of feedback as revealed by table 4.8. Teachers were ticking students' exercise books; teachers were giving praises like "good, thank you" to students; teachers recorded marks of students on a progress chart; teachers requested students to do corrections or go over the corrections together with them. The feedback was limited to a few students and the doing correction could be seen in Mathematics and English language lessons only. The marking of students' exercise books was not constructive (comments that show where the students made mistakes) instead the exercise books had either crosses or ticks in a red pen. There was evidence that the skill of giving an effective feedback to the students was a challenge to many teachers. The teachers acknowledged the importance of instructional materials in enhancing the learning of students but they expressed one main challenge of big class enrolment. For example one teacher said *"I use mainly the chalk board for giving instructions, students work and diagrams to be used because the school has very few textbooks for the large class to share equally".* Looking at classroom environment (Table 4.11), classrooms were sparsely resourced, classroom space was crowded and the classroom arrangements inhibited interaction among the students during the lessons. The class size limited the students' activities in the classrooms (Table 4.14) as many of them were listening and engaged in doing written work. It was evident that the big class enrolment and classroom environment had influence on classroom assessment methods and students' activities.

Whichever method or tool a teacher use to assess the learners, it should comprise of how students learn and the process of learning has to be in the minds of both leaner and teacher, how assessment process can be part of everyday classroom practice involving both the teacher and learner, the professional knowledge and skill of teachers, awareness of the impact that comments, marks and grades have on the learners' confidence and enthusiasm. The method or tool should also encourage and foster motivation on progress and achievement of learners rather than failure, promote the understanding of goals and criteria for the learners, help and improve learners' by providing information and guidance in order to plan the next steps in their learning and develop the capacity of the learners self-assessment and recognition of all educational achievement.

5.2.3 What is the influence of teachers' perception of classroom assessment on classroom assessment practices?

The teachers in all the classes managed and delivered their lessons more or less the same way across all subjects. In fact, early research literature seems to indicate that "teachers' methods and styles remain the same regardless of whether they are teaching large or small classes" (O'Sullivan, 2006:28). Furthermore, Ives as cited in Opolot-Okurut et al. (2005:1) has conceived that a single way to teach large classes does not exist, rather, one has always to consider a number of factors, including but not limited to the following: (1) ones' teaching style; (2) the characteristics of the students; and (3) the goals and objectives of the course as a basic minimum requirement. The lessons in most cases seen in this study were teacher centered. The structure of the lessons was organized as a whole group (Table 4.12) and entire classes were engaged in the similar activity at the same time (Table 4.13). Certainly, when teaching in large classes teachers provide fewer exercises and practice so as to reduce the amount of marking to do and the limited space in the classrooms hinders to conduct group work that would enhance effective coverage of content and students assessment. Lesson progress was not based on students' responses and this made teachers have complexity in identifying students with difficulties in understanding the main ideas in the lessons. In the summary of classroom assessment practices in the lessons observed as given in table 4.15 shows that teachers are assessing what students had achieved other than endeavor to assess what can make them understand how students were learning.

As earlier mentioned and also shown in table 4.1 classroom assessment embraces a broad spectrum of activities from constructing paper-pencil tests and performance measures, to grading, interpreting standardized test scores, communicating test results, and using assessment results in decision-making. Classroom assessment therefore has received increased attention from the measurement community in recent years. Since teachers are primarily responsible for evaluating instruction and student learning, there is a widespread concern about the quality of classroom assessment. Zhang, Z and Burry-Stock, J.A., (2003:326) state that there are two

points that are noteworthy about the existing literature. First, assessment practices and assessment skills are related but have different constructs. Whereas the former pertains to assessment activities, the latter reflects an individual's perception of his or her skill level in conducting those activities. This explains why teachers said what they were not practicing in classrooms. Most teachers rated their assessment skills as good even though they were found inadequately prepared to conduct classroom assessment in several areas. Second, classroom assessment involves a broad range of activities. Teachers may be involved in some activities more than in others due to the nature of assessment specific to the grade levels and content areas they are required to teach. Teachers differ in their assessment practices due to the nature of classroom assessment delineated by teaching levels.

Knowledge in measurement and testing has a significant impact on teachers' self-perceived assessment skills regardless of their teaching experience. This is particularly true in terms of teachers' feedback mechanism (Table 4.2) where the majority of teachers (33.3%) ticked the correct responses in pupils' exercise books. Training may compensate for novices' lack of experience in the classroom. Assessment is the feedback mechanism for improving assessment learning. By improving teachers' assessment practices and skills, we can improve classroom learning. This is an ambitious task, but herein lies a way of improving student achievement

5.2.4 Implications of findings for improvement

The implications and outcomes of assessment depend on the purpose for which they were developed and administered. Most assessments that are administered at predetermined and specific points in time, and under highly standardized conditions (on-demand), are used for accountability. Because test administration conditions are standardized, the results enable valid comparisons of student achievement across classrooms, schools, and school systems. In contrast, classroom assessment provides information that impacts instructional decisions. Regardless of its purpose, student assessment provides evidence that adequate learning is taking place based on established content standards and it can shape further teaching and

learning in a variety of ways; Teachers can identify skills and conceptual understandings that need reinforcement, Identify and respond to misconceptions about, and misapplications of content knowledge and processes, and Monitor student progress. Students can revisit and revise work based on known criteria, use models of successful work (exemplars) as a “target” for their own learning, and Self-monitor their progress. Parents and other stakeholders can see evidence of ongoing teaching and learning, and identify the needs of students’ classes, and/or schools and gauge the impact of, or need for, particular instructional resources.

When thinking about the role of assessment in teachers’ judgments, it is important to distinguish between externally mandated tests and various kinds of classroom assessment practices under the direct control of the teacher. External assessments are usually standardized, on demand tests that rely on multiple-choice or short constructed response questions. Judgments of student performance based solely or mainly on performance on standardized tests would likely be similar across teachers. In contrast, classroom assessment encompasses a wide range of approaches for the ongoing evaluation of student achievement and progress, including structured tests and quizzes; worksheets; homework assignments; and informal assessment of student participation, effort, and behavior. Judgments of student achievement based only or mostly on classroom assessment could differ considerably across teachers. Teacher conceptions about assessment and the nature of learning in general can fundamentally influence their judgments of student achievement. Furthermore, teachers’ perceptions about the relative value of standardized tests compared with classroom assessments will naturally influence their assessment of students. A teacher who relies mostly on standardized tests could reach widely different judgments about student achievement than one who places greater value on teacher made quizzes, effort, and participation in the classroom.

An awareness of the interaction between assessment and learning therefore can potentially improve the effectiveness of both. Factors associated with improving learning through assessment include; the provision of effective feedback to pupils, the active involvement of pupils in their own learning, adjusting teaching to take account of the results of assessment, recognition of the profound influence assessment has on the motivation and self-esteem of students, both of which are

crucial influences on learning, and the need for students to be able to assess themselves and understand how to improve.

The results of this study have implications for both researchers and teacher educators. First from a research perspective, the association between teachers' assessment practices and self-perceived assessment skills revealed in this study is stimulating and calls for further study. Future research may focus on the relationship between teachers' assessment practices and assessment skills, particularly on how assessment skills may facilitate improvement in assessment practices and on what practices are prerequisite to developing assessment skill. From a practical point of view teachers should be made aware of the suggestions and efforts teachers in other schools have done to carry out frequent assessment within large classes for example, using learner-centered methods and timely students' feedback.

Second, Primary teachers' colleges should lay emphasis on preparation of teachers ready to take on classroom assessment in large classes. This means the current programs need to be revised in order to effectively link theory in the training colleges to practice in the schools. Teacher education programs should be customized to addressing the challenges that teachers face in the field while carrying out effective assessment in large classes for effective learning. For example, new assessment and evaluation techniques; learner-centered teaching techniques; and the organization and management of large class techniques should be introduced, developed and nurtured during training. At the same time, teachers who are already in the field should be provided with regular updating of the knowledge and skills during continuous professional development in the outreach tutor programme conducted by Coordinating Center Tutors (CCTs). During teacher professional development mentoring and coaching techniques should be highlighted and group work and discussion techniques should be developed.

In Uganda through Teacher Development Management System (TDMS), Primary teachers' collages in their outreach tutor programme, allowed college tutors to work with a cluster of schools as a link between the college and the schools. The tutors would work in schools with classroom teachers and the Head teachers to crossbreed college theories with school and classroom experiences. This system has helped the

teacher training colleges to appreciate the challenges that classroom teachers experience and has also given opportunity to tutors to try out the theories they advocate in college.

5.3. Conclusion

The study has raised issues related to quality of teaching and assessment that accrued from the questionnaires, lesson observations and interviews in schools of Kamwenge district. Classroom assessment presents many challenges to teachers because most of them have had little preparation for engaging in meaningful, ongoing assessment of student learning. The challenge of assessment in large classes should be faced at all fronts by the stakeholders. Teacher's perceptions of assessment as tests for grades and use for reports to parents and head teacher pose problems that deprive students from opportunity-to-learn due to their attitudes, teaching and assessment methods and academic background. Overcrowded classrooms lead to shortage of adequate instructional materials, high pupil to teacher ratio and this minimises possibilities of individual teacher attention to the students.

The challenges should not be left to school administrators and teachers alone. The government through the Ministry of Education and Sports and district local governments should address the issue of teachers' professional development, teachers' numbers in schools and alongside with their welfare to motivate them. The teacher preparation programmes need to be urgently reviewed so as to incorporate contemporary issues, prepare and equip the pre-service teachers with pedagogic skills for the reality in the field. The current mode of assessment and the emphasis on examination results needs to be changed if we are to relieve of some of the burden that teachers face in marking and correcting too many students' exercise books in these large classes. The establishment by the Uganda government of the Education Standards Agency (ESA) and now called Director of Education Agency (DES), shall be critical to sustaining the discernable progress and to improving the prospects of achieving the education quality goal by 2015. Through the DES the

Ministry agreed on the framework for monitoring learning achievements to ensure that pupils receive quality education and indeed acquire basic learning competencies (*New Vision* May 12, 2003:49). Developing the capacity of teachers to improve their classroom assessment skills should be a priority if learning of students has to be meaningful. The nature of assessment, which is examination oriented that students are subjected to, has made learning to be superficial and has encouraged rote learning and memorization

The inference of the problems and challenges identified in this study plead for further research. The findings of this study should be interpreted with care because of the small number of teachers and schools that participated in the study and the fact that students were not accessed to find their analysis. A reproduction of this study to a larger sample might generate not the same results.

5.4. Recommendations for further research

The main focus of this study was to investigate the students' assessment in overcrowded classrooms in Kamwenge district, Uganda. It may be valuable to take on research in the following areas in order to further understand some of the issues raised in the study.

1. Research on classroom assessment practices could be performed in Primary Teachers Colleges (PTCs).This is where all the teachers who are teaching in primary schools are trained from (Pre-service). Furthermore, the Coordinating Centre Tutors (CCTs), who are assigned to carry out Continuous Professional Development (CPDs) to teachers in the designated cluster of schools (In-

service), are staff of the PTCs. The college tutors' perceptions of assessment of students may impact the way they prepare teachers to use the different methods and tools of assessment. The findings of the study would help Teacher Education Department in the ministry of Education and Sports which is in charge for the in-service of tutors, to set out strategies of improving assessment practices.

2. Further research could be done on the assessment and evaluation techniques that could reduce teachers' workload on marking and correcting students work, and yet maintain quality. Assess the effect of such assessment and evaluation techniques on students' achievement and develop teacher friendly methods and tools to be adopted in assessing students in large classes.
3. The changes in the nature of work, globalization, the information revolution and the increasing social nature of contemporary challenges should influence the agenda for assessment now in the 21st century to be characterized by much more departure from the traditional methods of assessments to the use of Information and Communication Technology (ICT) such as laptops and data projector in teaching large classes and carry out effective classroom assessment to enhance students' learning and teachers' teaching. Further research in this area would help to remove some of the constraints that have limited classroom assessment practice in the past.
4. How teachers analyze and use students' assessment results could provide facts vital to improving the standards of both teaching and learning. Without teachers being able to conduct assessment and scrutinize students' work accordingly, it would be hard for the teachers to plan and support the students meaningfully. A research in this area would improve educational standards.
5. Teacher's perceptions create problems that deny students an opportunity-to-learn due to their attitudes, teaching and assessment methods and academic background. Overcrowded classrooms lead to shortage of adequate instructional materials, low teacher to student ratio and this minimises possibilities of individual teacher attention to the students. Further investigation in the areas mentioned would give more solutions to the problems identified

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Appendix A: Letter of researcher seeking for permission

Link Community Development
P.O. Box 25630 Kampala (U)
peter@lcduganda.org

2nd April 2011

The District Education Officer
Kamwenge District Local Government
P.O. Box 1408
Kamwenge
Uganda

Re: PERMISSION TO CONDUCT RESEARCH IN KAMWENGE PRIMARY SCHOOLS

I am Isingoma Peter, Master of education student of University of South Africa (UNISA). I am seeking permission to use 4 schools of Nyabbani p/s, Buryansugwe p/s, Kyabenda p/s, and Kamwenge primary in my research studies.

The purpose of this research is to investigate the current classroom assessment practices to primary school teachers in four selected schools in Kamwenge district. I am working under the supervision of Dr **Victor J Pitsoe;** Department of Educational Management and Leadership, College of Education, University of South Africa

I remain yours
Sincerely
Isingoma Peter

Appendix B: Letter granting researcher permission

THE REPUBLIC OF UGANDA

KAMWENGE DISTRICT LOCAL GOVERNMENT

EDUCATION DEPARTMENT

P. O. Box 1408, Kamwenge

Telegram ……, Telephone: 0772-611597 Fax…. E-mail…..

Your Ref:……
*Our Ref:**Edu/P/12***

10th April, 2011

To: Mr Isingoma Peter

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

This to acknowledge the receipt of your request of carrying out research in 4 Primary schools in Kamwenge district.

The department wishes to inform you that, you have been granted permission to conduct research in the 4 mentioned schools in your letter under the title; "Overcrowded classrooms and learners assessment in primary schools of Kamwenge district, Uganda"

You are requested to share with the department the final product of your study upon your completion of the study

The Education department wishes to appreciate your contribution towards the improvement of the quality of assessment in all the schools

Thanks

Tumwiringire Eric
DISTRICT EDUCATION OFFICER

Mission: to provide coordinated delivery of services focusing on national and local priorities for the development of the people of Kamwenge.

Appendix C

Questionnaire 1 for teachers

Topic: Pupils' assessment in primary schools of Kamwenge District

The purpose of this questionnaire is to get the Teacher's Perception of Classroom Assessment Practices. The information given shall be for research work and will be treated with high degree of confidentiality. Please kindly fill in the blank spaces and there after tick the appropriate box or appropriate scale accordingly.

Name of school…… Name of Teacher……

Number of Pupils in class…… Sex…… Class……..

1. How long have you been teaching? ……

2. What is your teaching class? .....

3. How long have you been teaching in this class……

4. Tick a statement below that best defines assessment as you use assessment in your classroom.

[ ] a. classroom assessment is a process of administering a test to pupils in order to assign grades and report to parents and the Head teacher.

[ ] b. classroom assessment is a process, which helps teachers to promote pupils from one class to another.

[ ] c. classroom assessment refers to all tests a teacher gives at the end of a topic or term

[ ] d. classroom assessment is a tool that a teacher uses to inform teaching and learning

5. How often do you assess your pupils? (Tick one option that best describes how often you assess)

[ ] a. once a week

[ ] b. once a month

[ ] c. every two weeks

[ ] d. twice a term

[ ] e. about every lesson

[ ] f. other (specify)…….

6. Assessment is useful to me. (Tick one option that best describes how you feel on the given scale)

1	2	3	4
Strongly Disagree	disagree	agree	strongly agree

Why? .....

.....

7. Assessment is useful to my Pupil. (Tick one option that best describes how you feel on the given scale)

1	2	3	4
strongly disagree	disagree	agree	strongly agree

Why? .....

.....

8. What type of feedback do you provide for Pupils based on your assessment?

.....

.....

9. My teacher preparation and planning provide a variety of ways to assess Pupils. (Tick one option that best describes how you feel on the given scale)

1	2	3	4
Strongly disagree	disagree	agree	strongly agree

10. Please read carefully the statements below and indicate using (X) on the four point scale the degree at which you do it. Mark the box under "1" for "Never" if you don't do it, mark the box under "2" for "Sometimes" if you do it at times, "3" for "Frequently" if you do it often and "4" for "Always" if you do it at all times.

1. I design my lessons to allow me to monitor Pupils' progress. ……1… ……2…… ……3… ……4……

2. My instructional methods and activities reflect attention to issues of access, equity and diversity for pupils. …1…… ……2…… ……3… ……4……

3. The design of my lessons to incorporate tasks, roles, and Interactions.

. 1…… ……2…… ……3… ……4……

4. I probe pupils' reasoning. ……1… ……2…… ……3…… ……4……

5. The instructional methods and activities I use reflect attention to pupils' experiences and readiness. ……1… ……2… ……3…… ……4……

6. I provide adequate time and structure for reflection. …1…… ……2…… ……3…… ……4……

7. I interact with my pupils. …1…… ……2…… ……3… ……4……

8. I encourage my pupils to talk and share ideas. ……1… ……2…… ……3…… ……4……

9. I give pupils immediate feedback when they need directions to proceed. ……1… ……2…… ……3…… ……4……

10. I take into account prior knowledge of my pupils. ……1… ……2…… ……3…… ……4……

11. I make sure the pace of the lesson is appropriate for the developmental level/ needs of the pupils and the purpose of the lesson. …1…… ……2… ……3…… ……4……

12. My questioning methods are likely to enhance the development of pupils conceptual understanding/problem solving. ……1… ……2…… ……3… ……4……

13. My lessons progress based on pupils' responses. ……1… ……2…… ……3…… …4……

14. The in class activities consolidate the main ideas of the lesson. ……1… ……2…… ……3… ……4……

15. I identity pupils who have difficulties in understanding the main ideas of the lesson. ……1… ……2…… ……3…… ……4……

Appendix D

Pre – lesson observation interview

Topic: Pupils' assessment in primary schools of Kamwenge District

The purpose of this observation interview is to get the Teacher's Perception of Classroom Assessment Practices. The information given shall be for research work and will be treated with high degree of confidentiality.

1. What subject do you teach in this class?

2. What is the topic you are teaching at the moment?

3. What are the objectives of the lesson you are going to teach?

4. What instructional materials are you using to help in achieving the lesson objectives?

5. What type of activities are you going to carry out during the lesson?

6. Do you foresee any problem with your pupils during the lesson?

Appendix E

Questionnaire 2 (Lesson Observation)

Topic: Pupils' assessment in primary schools of Kamwenge District

The purpose of this questionnaire is to get the Teacher's and pupils Classroom Assessment Practices. The information given shall be for research work and will be treated with high degree of confidentiality.

Date…… Name of the school……

Time of observation…… Start …… End……

Class …… Teachers' sex……

Number of Pupils …… Boys…… Girls……

A. Classroom Context: Rate the adequacy of the Classroom environment.

1. Classroom resources:	1	2	3	4	5
	Sparsely resourced				equipped rich in resources

Comments……

……

……

2. Classroom space	1	2	3	4	5
	Crowded				Adequate space

Comments……

……

……

3. Room arrangement	1	2	3	4	5
	Inhibited interaction among pupils				Facilitated interaction among pupils

Comments……

……

……

B. Description of the lesson observed.

C. Major way(s) in which Pupils activities were structured.

☐	☐	☐	☐
As a whole group	As small groups	As pairs	As individuals

Comments (*estimate time spent on each*)…….

……

……

……

D. Major way(s) in which Pupils engaged in class activities.

☐ Entire class was engaged in the same activities at the same time

☐ Groups of students were engaged in different activities at the same time (e.g. centers).

Comments……

……

……

E. Major activities of Pupils in the lesson.

☐ 1. Listened to a presentation:

☐ a. By teacher (would include: demonstration, lectures, extensive procedural instruction).

☐ b. By pupils (would include informal, as well as formal, presentations of their work).

☐ c. By guest speaker/ “expert” serving as a resource.

Comments……

……

……

☐ 2. Engaged in discussion/seminar:

☐ a. whole group.

☐ b. small groups/pairs.

Comments……

……

3. Engaged in problem solving/investigation:

☐ a. Played a game to build or review knowledge

☐ b. Followed specific instructions in an investigation.

☐ c. Had some latitude in designing an investigation.

☐ d. Recorded, presented and analyzed data

☐ e. Recognized patterns, cycles or trends.

☐ f. Evaluated the validity of arguments or claims.

☐ g. Provided an informal justification or formal proof.

Comments……

……

……

4. Engaged in reading/reflection/written communication about

a. Read about the subject

b. Answered textbook/worksheet questions.

c. Reflected on reading, activities, or problems individually or in groups.

d. Prepared a written report.

e. Wrote a description of a plan, procedure, or problem solving process.

f. Wrote a reflection in a notebook.

Comments……

……

……

5. Other activities.

……

……

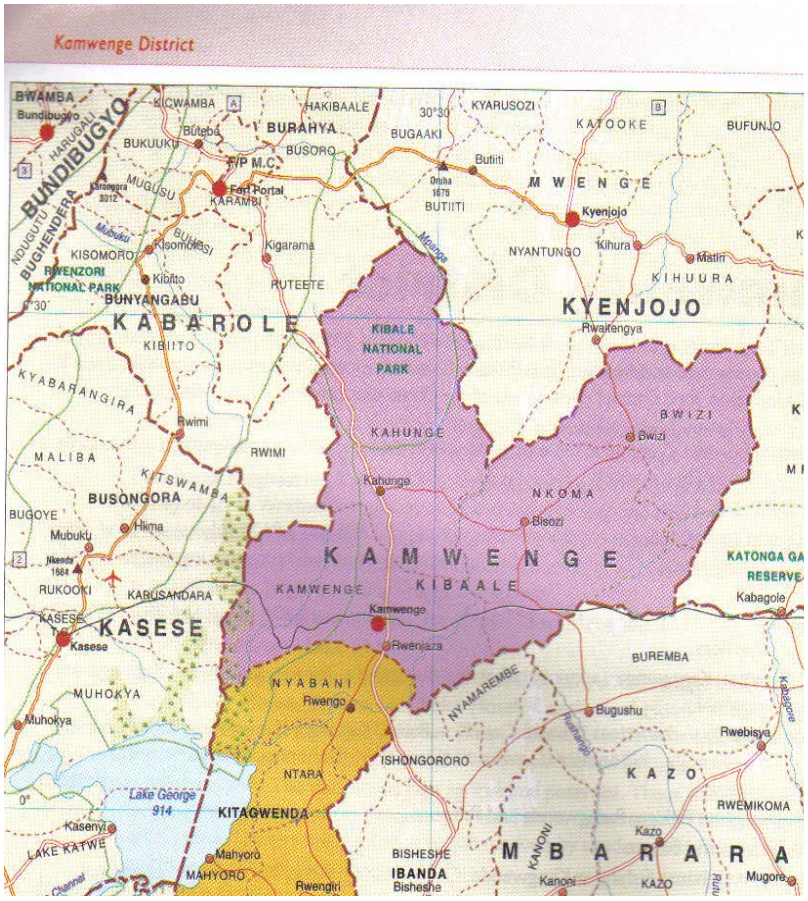
……

……

G. Ratings of Key Assessment Indicators

	Not at all			To a greater extent
1. The design of the lesson allowed the teacher to monitor students' progress	1	2	3	4
2. The instructional strategies and activities reflected attention to issues of access, equity, and diversity for students (e.g. "wait time" cooperative learning)	1	2	3	4
3. The design of the lesson incorporated tasks, roles, and interactions consistent with investigative with the subject	1	2	3	4
4. Teacher probed Pupils' reasoning.	1	2	3	4
7. The instructional strategies and activities used in this lesson reflected attention to Pupils' experiences and readiness.	1	2	3	4
8. Adequate time and structure were provided for reflection	1	2	3	4
7. The teacher was able to interact with Pupils.	1	2	3	4
8. The teacher encouraged Pupils to talk and share ideas.	1	2	3	4
9. Students were given immediate feedback when They needed directions to proceed.	1	2	3	4
10. The teacher took into account prior knowledge of the Pupils.	1	2	3	4
11. The pace of the lesson was appropriate for the developmental level/needs of the Pupils and the purpose of the lesson.	1	2	3	4

13. The teacher's questioning strategies were likely to Enhance the development of Pupils conceptual understanding/ problem solving (e.g., emphasized higher order questions, identified prior conceptions and misconceptions)	1	2	3	4
14. The lesson progressed based on Pupils' responses.	1	2	3	4
14. The in-class activity consolidated the main ideas of the lesson of that day.	1	2	3	4
15. Teacher was able to identify students who had Difficulty in understanding the main ideas of the lesson.	1	2	3	4
16. Pupils had chance to ask questions.	1	2	3	4


Kamwenge District
BWAMBA
Bundibugyo
KICWAMBA
HAKIBAALE
BURAHYA
BUSORO
BUKUUKU
Butebo
P.M.C.
Fort Portal
KARAMBU
BUGAAKI
KYARUSOZI
KATOOKE
BUFUNJO
Butiti
MWENGE
Ohiha
1679
BUTIITI
Kyenjojo
NYANTUNGO
Kihura
Matiri
KIHUURA
KISOMORO
Kigarama
RUTEETE
RWENZORI
NATIONAL PARK
Kibiito
BUNYANGABU
KABAROLE
KIBIITO
KIBALE
NATIONAL
PARK
KYENJOJO
Rwaitengya
KYABARANGIRA
Rwimi
RWIMI
KAHUNGE
BWIZI
Bwizi
MALIBA
KITSWAMBA
BUSONGORA
Kahunge
NKOMA
BUGOYE
Hima
Mubuku
Bisozi
KAMWENGE
KIBAALE
KATONGA GA
RESERVE
Kabagole
RUKOOKI
KARUSANDARA
KASESE
Kasese
Kamwenge
Rweniaza
BUREMBA
NYABANI
Rwengo
NYAMAREMBE
MUHOKYA
Muhokya
Bugushu
Rwebisya
ISHONGORORO
NTARA
KAZO
Lake George
914
KITAGWENDA
RWEMIKOMA
Kazo
Kaseny
LAKE KATWE
Mahyoro
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IBANDA
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KANONI
MBARARA
Kanoni
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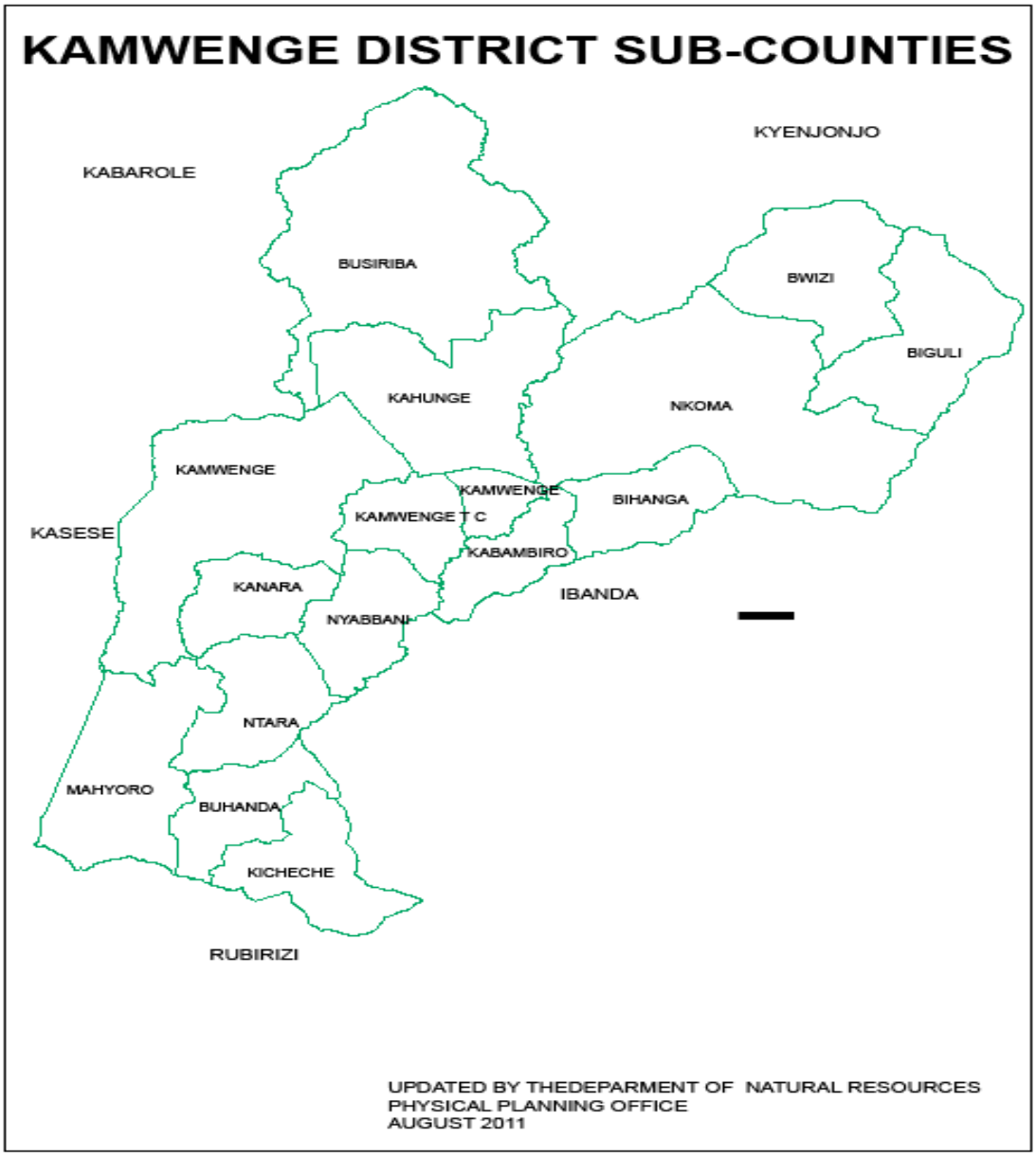
Mugore
Rwengiri


KAMWENGE DISTRICT SUB-COUNTIES
KYENJONJO
KABAROLE
BUSIRIBA
BWIZI
BIGULI
KAHUNGE
NKOMA
KAMWENGE
KAMWENGE
KAMWENGE T C
BIHANGA
KASESE
KABAMBIRO
KANARA
IBANDA
NYABBANI
NTARA
MAHYORO
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KICHECHE
RUBIRIZI
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PHYSICAL PLANNING OFFICE
AUGUST 2011