CONTINUOUS ASSESSMENT AND PERFORMANCE OF PUPILS IN MATHEMATICS IN PRIMARY SCHOOLS IN NTUNGAMO DISTRICT, UGANDA

BY

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DECLARATION

I,**ATUHAMYE BERNARD GREAT,**do declare that this dissertation is my original work and has never been submitted for any award in any other University.

Signed: .....

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Date: 18-11-2014

APPROVAL

This is to certify that this research titled "Continuous Assessment and Performance of pupils in Mathematics in Primary Schools in Ntungamo District, Uganda" has been under our supervision and guidance.

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DEDICATION

I dedicate this dissertation to my late beloved mother and friend Mrs. Zenia Karikwita for making my life happy adventure.

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ABSTRACT

This study aimed at investigating the influence of ContinuousAssessment on pupils' performance in Mathematics in Primary Schools in IhungaSub-county, Ntungamo District. The specific objectives of the study were to establish the influence ofContinuous Assessment in Mathematics on the end-of-term scores, grades obtained in Primary Leaving Examinations (PLE) and coverage of prescribed syllabus.The cross-sectional research design was used to guide the study on the influence of Continuous Assessment and performance in Mathematics of pupils in primary schools in Ihunga Sub-County in Ntungamo District, Uganda. A total sample of 86 participants including teachers and head teachers of the fifteen primary schools was used.Questionnaires and Focus Group Discussion Guides were used to obtain data from 86 study participants from 15 primary schools. Data were analyzed by descriptive statistical techniques and presented in form of tables, frequencies and percentage distribution. The major findings of the study were that; continuous assessment influences end-of-term scores, PLE grades and syllabus coverage in many ways. The significant ones being end of unit tests as the best methods of getting data for assessing pupils' performance, Continuous Assessment works best in Mathematics for small classes and enables pupils to work hard to improve on PLE grades. The study concluded that there was a positive influence of Continuous Assessment towards the performance of Mathematics of pupils in primary schools. It was however, established that Continuous Assessment was not emphasized as there was scanty evidence of the records concerning Continuous Assessment. It was therefore recommended that stakeholders should put emphasis on Continuous Assessment so that there is improvement on End-of-term scores, improves on PLE grades as well as promoting syllabus coverage. This study only addressed the influence of Continuous Assessment in Mathematics and end-of term scores, grades obtained in PLE and coverage of prescribed Mathematics syllabus by pupils in Ihunga Sub-county – Ntungamo District. Therefore, a more systematic research is needed in the areas of teachers' perception towards Continuous Assessment.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter consists of the background of the study, problem statement, purpose, objectives, research questions, scope and significance of the study.

1.1 Background of the Study

This section presents historical, theoretical, conceptual and contextual perspective of the study.

1.1.1 Historical Perspective

Globally, Continuous Assessment is taken to be one of the critical means of improving academic performance. In recognition of the role of Continuous Assessment in stimulating academic performance, many countries embarked on implementation of Continuous Assessment at primary and secondary school levels. For instance in Malawi, Continuous Assessment was implemented in a couple of districts and the performance of pupils in Mathematics improved remarkably, (USAID 2003). In Uganda, implementation of Continuous Assessment stems from the white paper (1992) recommendations that schools should maintain a cumulative record card on continuous internal assessment including class performances. Since then, teachers have attempted and continued to carry out Continuous Assessment in primary schools.

To improve the achievement levels of learners Continuous Assessment as an evaluation for the teaching and learning was envisaged by the government of Uganda as a key determinant of learners' achievements and was implemented in 2006 (Ahimbisibwe, 2011).

1.1.2 Theoretical Perspective

Thorndike (1898) used the trial and error theory in problem solving. This theory states that "responses that are closely followed by satisfying consequences becomes associated with the situation and are more likely to reoccur when the situation is subsequently encountered."

This theory is ideal for this study because Continuous Assessment involves learners in participating in learning activities more often. This implies that the more the learners are assessed, the more likely they will improve on their performance, thus the justification for use of this theory in this study.

1.1.3 Conceptual Perspective

Over the decades, Continuous Assessment has been conceptualized by different authors. A general picture so far tend to reveal that; Continuous Assessment is the process by which teachers gather information about the effectiveness of teaching and learning and the appropriateness of the course or curriculum being implemented (NCDC, 2012)..

On the other hand, Erwin (1991) defines Continuous Assessment as the systematic basis for making inferences about the learning and development of students' processes of defining, selecting, collecting, analyzing, interpreting and using information to increase students learning and development.

UNEB (2010) defines Continuous Assessment as a systematic, objective and comprehensive way of regularly collecting and accumulating information about student's learning achievement over a period of study and using it to guide the students' learning and determine their level of attainment.

Continuous Assessment involves the use of exercises, tests and home work to gather numerical marks which are added to the end- of- term and year examinations to serve as pupil's records. Continuous assessment is used to supplement formative and summative assessment which can be done through observation, class work, home work and topical tests as emphasized by NCDC Uganda (2012). The syllabus used is a major guide in formulating competences for assessment which are found at the end of every topic hence helping teachers to identify more competences that can be worked upon during Continuous Assessment. This concept of Continuous Assessment therefore means that when applied correctly and consistently would go a long way to help learners improve on the performance.

Greaney (2001) defines assessment as any procedure or activity that is designed to collect information about the knowledge, attitudes or skills of the learner or group of learners.

Therefore, assessment is a process through which the quality of an individual's work or performance is judged. When carried out as an on-going process, assessment is known as Continuous Assessment. It is a formative evaluation procedure concerned with finding out in a systematic manner, the overall gains that a learner has made in terms of knowledge, attitudes and skills after a given set of learning experiences (Ogunniyi 1984).

According to Aggarwal (1999), Continuous Assessment is not simply continuous testing. Continuous assessment does not solely depend on formal tests. Continuous Assessment is more than giving a test, it involves every decision made by the teacher in class to improve pupils achievement. Continuous Assessment may take different forms such as formal questions given to students during class, take-home assignments/exercises and recapitulation exercises.

Assessment is either internal or external. Internal assessment refers to school-based assessment, which includes class assignments, teacher-made tests, recap exercises, projects, field studies and all these tools form part of the classroom continuous assessment strategies. A Continuous Assessment strategy refers to the different tools/procedures used in the class room to understand the academic achievement levels of learners in terms of their knowledge, attitudes and values. Also a strategy in assessment is a purposefully conceived and determined plan of action. It is a pattern of assessment that seems to attain certain outcomes and to guard against others (Aggarwal, 1999). External assessment refers to tests that are produced by examining bodies away from school. For example, PLE is a public examination offered by the Uganda National Examinations Board (UNEB) that forms external assessment at primary level. UNEB is an examination body in Uganda vested with all the authority of examining and certifying learners at primary level after they have sat for the final examination at the end of the seven years. In this study, performance is used to denote pupils achievement based on their grades or results attained, (UNEB Handbook, 2012). In this study, Continuous Assessment is used to refer to a class room strategy implemented by teachers to ascertain the knowledge, understanding and skills attained by pupils.

The assessment results occasion transfers to design and implement feedback strategies that enable learners to make learning progress throughout the school cycle and thereby increasing their academic achievement (USAID, 2003).

Performance is the out put evidenced from individuals in relation to what is expected of them. This can be seen from individuals as per the activities given to them in the way each individual can ably do it. This may include academic excellence, skill practice, interpretation of data, and responses to instructions given, personal judgment and so on.

In this study, performance was defined as the act or process of carrying out some thing or execution of an action or a repetitive act or fulfillment or implementation (Hornby, 2000). Performance will be at its best where teachers enjoy their job, have confidence in management and have trust in their leaders, where teachers cover what they are meant to teach in time and punctual and register at work (Kirunda, 2004). Performance is an important area of organizational behavior and education. It is perceived as a major dependent variable that measures the degree to which employees like their jobs and the various aspects of their jobs (Stamps, 1997).

1.1.4 Contextual Perspective

The education system of Uganda is examination oriented and this has persisted since 1960's to date (World Bank, 1988). All the teaching and learning is centered on passing final examinations. It is sometimes referred to as 'teaching to the test'. This challenge is compounded even further by the fact that pupil's promotion to another level is based on pupil's grades as it is the case in Ihunga Sub-county Ntungamo District. End-of-education level cycle, assessment is subjective, immediate and intuitive as it interacts with learning as it occurs (Kellaghan and Greany, 2003). For instance, teachers are required to assess their pupils regularly using different assessment strategies so that learners could memorize the subject content taught to them during the final examinations. The downside of this approach is that pupils are encouraged to exercise rote memorization of facts and cramming of information rather than acquired problem-solving skills. This study was therefore conceived, designed and undertaken in order to analyze the various classroom assessment practice and find out whether there was any relationship between Continuous Assessment practices with pupils improvement in performance on the final examinations which is a proxy for pupils acquisition of functional skills and knowledge.

It is evident that, the situation in Ihunga Sub-county,Ntungamo district, teachers are still teaching pupils to cram and memorize facts for the end of primary seven examinations

but the performance is still poor especially in Mathematics. It is therefore against this background that the researcher seeks to establish the extent of implementation of Continuous Assessment and its effects on the performance of pupils in Ihunga Sub-county , Ntungamo district in Uganda.

1.2 Statement of the Problem

The performance of pupils in Ihunga Sub-county, Ntungamo District in especially Mathematics has generally been unsatisfactory as reflected in the results released over the past years by Uganda National Examinations Board (UNEB PLE Report, 2011). The poor performance has impacted negatively even on other subjects. One wonders why Continuous Assessment is not helping to improve unsatisfactory performance in Mathematics by pupils. It is evident that the situation in Ihunga Sub- county, Ntungamo District, teachers are still teaching pupils to cram and memorize facts for the end of primary seven examinations but the performance is still poor especially in Mathematics. It is therefore against this background that the researcher seeks to establish the extent of implementation of Continuous Assessment and its effects on the performance of pupils in Ihunga Sub- County, Ntungamo District -Uganda

1.3 Purpose of the study

The purpose of this study was to establish the influence of Continuous Assessment on pupils' performance in Mathematics in Ihunga Sub-county Ntungamo District in Uganda.

1.4 Objectives of the study

The objectives of the study were to:

i. To establish the ways in which Continuous Assessment influence End-of-term scores obtained in Mathematics by pupils in Ihunga Sub- County,
ii. To establish the ways in which Continuous Assessment in Mathematics infleunce grades obtained in PLE by pupils in Ihunga Sub- County,
iii. To establish ways in which Continuous Assessment influence coverage of prescribed Mathematics syllabus by pupils in Ihunga Sub- County in Ntungamo District in Uganda.

1.5 Research Questions

The study was guided by the following questions:

i. In which ways does Continuous Assessment influence end-of term scores obtained in Mathematics by pupils in Ihunga Sub County?
ii. In which ways does Continuous Assessment in Mathematics influence grades obtained in PLE by pupils in Ihunga Sub County?
iii. In which ways does Continuous Assessment influence the coverage of prescribed Mathematics syllabus by pupils in Ihunga Sub County, Ntungamo District in Uganda?

1.6 Significance of the Study

The findings of the study are expected to benefit the following stake holders; the pupils to improve on their performance in Mathematics through systematic and consistent use of Continuous Assessment, School administration through support supervision to ensure that Continuous Assessment is ably implemented by the teachers, the teachers will be utilized to help pupils improve on their performance in Mathematics. Other stake holders such as policy markers, UNEB, DES, NCDC as well as parents will be able to realize the contribution of Continuous Assessment for performance improvement among learners. Finally, this study has not only added knowledge but it is also likely to stimulate more research in the areas of Continuous Assessment.

1.7 Scope of the Study

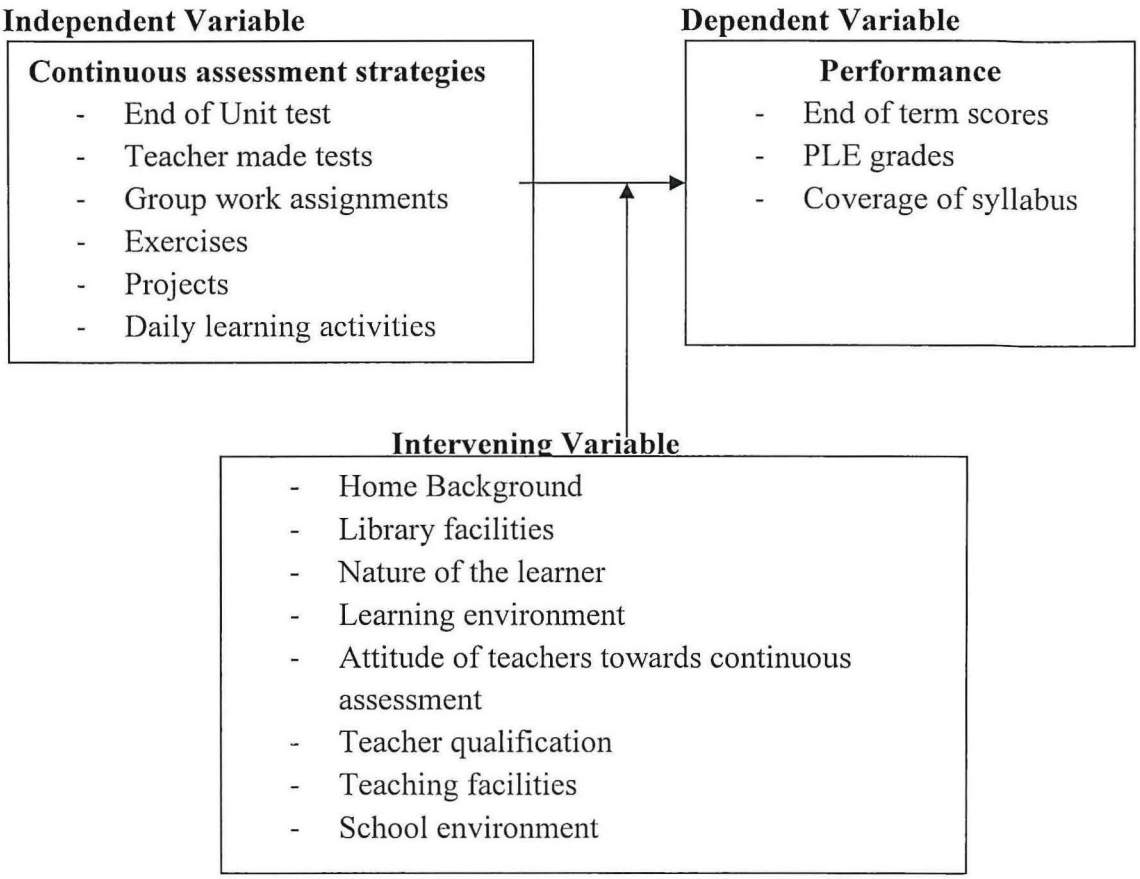
The study was carried out in Ihunga Sub-county, Kajara County, Ntungamo District, Uganda. It was carried out in all the fifteen primary schools in the sub-county. The study was about Continuous Assessment and performance in Mathematics by pupils in primary schools in Ihunga Sub-county, Ntungamo District. The study was to find out the extent to which Continuous Assessment in Mathematics relate to end-of- term- scores, grades obtained in PLE and coverage of prescribed syllabus by pupils in Ihunga Sub- County. The respondents were 15 Head teachers out of 15 and 71 teachers out of 95. Further more the study considered the years 2012 and 2013 as the researcher expected improvement in performance since the implementation of Continuous Assessment in 2006.

1.8 Conceptual Frame Work

The conceptual framework indicates the relationship between Continuous Assessment and pupils' performance in Mathematics in Ntungamo district, Uganda.

Continuous Assessment was conceptualized as end of unit tests, teacher made tests, group work assignments, exercises, and daily learning activities while performance was conceptualized as end of term scores, PLE grades and syllabus coverage.

Fig. 1 Conceptual Frame Work



Source: McShane and Glinow (2003) Okumbi (2001)

Figure 1 shows the conceptual frame work of the study. The conceptual framework suggests that Continuous Assessment is likely to contribute to pupil's performance in Mathematics in Primary schools in terms of end-of- term scores, PLE grades and syllabus coverage. Pupils attending schools where teachers were using various Continuous Assessment strategies regularly could perform better. There are also intervening variables that may influence the relationship between Continuous Assessment strategies being used and pupils' performance in primary schools such

as home background, library facilities, nature of the learner, learning environment, teachers' attitude, teacher qualification and teaching facilities. Therefore if all the independent and intervening variables in figure 1 above are catered for, then the researcher expects improvement in performance especially in Mathematics in Ihunga Sub-county, Ntungamo District in Uganda.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter represents the related literature in areas of Continuous Assessment and end-of term scores, grades obtained in PLE and coverage of prescribed syllabus by pupils in Ihunga Sub-county, Ntungamo District in Uganda.

2.1 Continuous Assessment and End-of- term scores

Beryl and Jean (1991), look at Mathematics as a powerful tool used in every day life, in industry and in society. When used in this way, it is not the method that is important but the result. Since the Mathematics used as a tool aims at the result, the result can be readily identified by the end- of- term scores. These End-of-term scores can be realized through Continuous Assessment in Mathematics and End-of-term scores obtained by pupils as seen through the use of Mathematics as a tool to obtain the result it deserves and thus seen through the end- of- term scores.

NCDC (2009), notes that Continuous Assessment involves the observation of children's performance of oral, practical and written activities. The actual recording of what has been observed on the other hand, only takes place when there is something to record. This means that teachers need to be familiar with the competences and to plan for activities that help children develop them. The recording of observations is what can take time. The above observation implies that all what has been recorded can be used to obtain end –of- term scores through Continuous Assessment. Therefore Continuous Assessment done to the pupils assist in obtaining end- of- term scores especially when the observations are clearly recorded and to some extent, remedial work is given to those pupils that could have had challenges such that the end- of- term scores are promising.

Webb and Briars (1990) argued that assessment must be an interaction between the teacher and students, with the teacher continually seeking to understand what a student can do and how a student is able to do it. Yoloye (1991) also pointed out that Continuous Assessment is only a part of the field of educational evaluation. He further argues that Continuous Assessment is "a method of evaluating the progress and achievement of students in educational institution" (Yoloye 1999). This means that continuous

assessment could be used to predict future students' performance in the final examinations and the possible success at the work place or a particular job

Farrant (2000) asserts that most of the information obtained through informal methods of testing should result in some form of immediate action such as building new knowledge on what has been properly learned or correcting whatever has been imperfectly learned, but a record should also be kept that reflects the progress of child's learning. This record should reflect faithfully the child's actual learning experience and provide a record of Continuous Assessment. From the above perspective, evidence to Continuous Assessment should always be there with the teachers and this is only shown by the records on the progress of every learner. Schools should ensure that the existence of Continuous Assessment is evident and this is through displays as may be shown through the records as seen by the end- of- term scores obtained by pupils.

National Council of Teachers of Mathematics (2007) asserts that effective teaching involves observing student, listening carefully to their ideas and explanations, having mathematical goals and using the information to make instructional decisions. Teachers who employ such practices motivate students to engage in mathematical thinking and reasoning and provide learning opportunities that challenge students at all levels of understanding. Effective teaching requires continuous efforts to learn and improve. This can be easily done through Continuous Assessment and therefore its emphasis should not be underrated especially when teachers make it a point to ensure that the syllabus is covered adequately. Assessments designed to measure student achievement of standards are very different from the norm – referenced tests still used in most testing programs. Norm-referenced tests are designed to compare students to another rather than to evaluate their performance in relation to specific standards devices such as time limits and distracter questions deliberately placed to distract students from the right answer are used to sort out the best performers. This approach therefore seems to fail to consider students in general rather than individuals. It would be imperative to consider individual such that the kind of feedback given to particular individuals can give them encouragement to improve on their performance individually instead of comparing good performers to bad performers. Individual assessment is the best way of helping a learner to improve and this can be realized by observing end of term scores obtained by individual pupils.

National council of teachers of mathematics (2007) observes that assessment should become a routine part of the ongoing classroom activity rather than an interruption. Many assessment techniques can be used in Mathematics including open-ended questions, constructed – response tasks, selected response items, performance tasks, observations, conversations, journals and portfolios. These methods can be appropriate for classroom assessment, but some may apply more readily to particular goals for example quizzes using simple constructed response or selected-response items may indicate whether students can apply procedures thus calling for the implementation of continuous assessment by teachers. In view of the above statement, improvement in performance in Mathematics can be done by a variety of assessment techniques depending on what the teacher finds more appropriate to the learners as a measure of helping pupils to realize better end of term scores as this helps in performance improvement.

Troutman and Lichtenberg (2003), state that real learning engages the whole learner, physically, emotionally and mentally. If one of the elements is impaired, learning may be blocked or impended. They go on to say that learning is enhanced by challenge and blocked by punishment or threat. The brain deals with wholes and parts simultaneously, uniting these elements into systems of knowledge. To memorize; is natural, humans want to remember. However, information is most useful when it fits naturally into whole part systems constructed by the individual. Since the above emphasizes learning and that learning deals with acquisition, retention and application of knowledge, skills, values and so on, during assessment, teachers need to ensure that the question designed for the learners should contain knowledge, comprehension and application so that the learners are mentally, emotionally and physically catered for. Therefore Continuous Assessment is the way to go such that performance is improved as may be realized by the PLE grades obtained.

Goodwin (1997) asserts that our values and social relations determine not only how tests are used but also the nature of the tests themselves. The entire test development process domain we decide to measure, the cultural background and specialized training of test developers, the material chosen for inclusion, the design of the individual items, the language and idioms used, the directions given, the validation process and so on stacks the testing 'deck' in favor of certain values and groups in our society and unintentionally

assure that other values and groups are dealt with a weaker hand. This implies that during testing and Continuous Assessment, the type of questions used should cover all the three domains bearing in mind that the values and social relations are put into consideration in relation to the cultural background to help learners understand Mathematics within their own environment. This will improve the performance.

Kiggundu-Mukasa (2002) observed that any Mathematics exercise given to the pupils should be marked thoroughly. Teachers should award marks for every correct statement a pupil writes as a correct solution or method to the problem. This acts as a feedback to the learner and once this is done it helps the teacher to identify areas that need remedial work to the learner to help him acquire mathematical concepts. This implies that regular marking can be done through Continuous Assessment to identify remedial work thus helping the learners to improve performance. This is readily seen through end- of- term scores.

Sichagi (2007) observes that marking of tests can also bring the negative attitude towards the subject. Many at times the marking of tests and assignments are only checking on the accuracy mark, yet the wrong mark could be due to an arithmetic error. This therefore condemns the whole work without considering the other correct processes and efforts the student has put in. There is need to follow critically, the students' work during marking with a view to discussing the mistakes made in the process.

The above statement clearly shows that during the discussion of the mistakes made by student, there is ample time for giving constructive feedback that can help the learner to like the subject more and this improves on the numeracy skills. Continuous Assessment is suitable for helping the learner to improve having discussed the identified mistakes as regular results through Continuous Assessment can be related to those obtained at the End-of-term.

2.2 Continuous Assessment and PLE Grades

Mooney (2003) observes that Continuous Assessment followed by summative assessment are useful and they are done at the end of a series of lessons on one topic, or at the end of a term, year or key stage. They add that although the assessment outcomes may be used for target-setting and inform longer term planning; it gives a picture of a pupil's

attainment at a particular point in time. This observation is much linked to our primary education system especially at PLE. Therefore it is vital for Continuous Assessment being used to improve on the grades that can be obtained at PLE by the pupils. This implies that engaging in Continuous Assessment done to the pupils has a relationship to the grades obtained by pupils at PLE since this system can clearly identify where there are challenges and hence endeavoring to overcome them for purposes of improving PLE grades

UNESCO (2003) emphasizes that the assessment in elementary education i.e. primary schooling should ensure accurate assessment of learning outcomes namely knowledge, skills, attitudes and values. It further asserts that; rural people must have the education and training to be fully professional and able to praise and if appropriate, incorporate new technologies into the production. At the same time, it is equally important to bear in mind that education for rural or any other people is about more than skills; it also includes the values, knowledge and behavior that support preparation for a full life as parent, community member, citizen and participant in the wider culture.
This therefore implies that the implementation of Continuous Assessment should be emphasized in primary schools since it ensures that learning outcomes are explicitly expressed as may be identified by the grades obtained at PLE.

Carr (2003), states that the main complaint seems to be rather that the instruments adopted by educational professionals for the testing of knowledge namely the formal tests and examinations upon which so much academic certification is based are practically inadequate to measure genuine or worthwhile pupil understanding.

The above assertion reminds teachers that tests and examinations are not more important in helping learners in improvement in performance than putting more emphasis on Continuous Assessment. Therefore, there is need for primary schools to take on continuous assessment as a better means of helping learners to achieve their competences so that the results at PLE exhibit better grades than the previous.

Mooney, Briggs and Fletcher (2003) asserts that in order to achieve the aim of functional numeracy children need to be able to think flexibly and to apply their knowledge to new

situations, to solve practical problems, to experiment within Mathematics it self, to develop the ability to reason mathematically and communicate their reasoning to others. We can not assume a child is functionally numerate if they can only answer pages of questions. They need to be able to obstruct and generalize from specific situations in order to demonstrate their mathematical thinking. These elements of generalizing and communicating mathematical thinking need to be foremost in our teaching. The above observation clearly indicates that in order for a child to become numerate requires that enough practice is given and this may be done during Continuous Assessment as this will determine the performance and hence obtain good grades at PLE.

Primary curriculum implementation guidelines and assessment specifications by NCDC (2012) look at Continuous Assessment as an ongoing process of gathering, interpreting and using information about the learners' achievements. It helps in making decisions about what to teach, how to teach and what learning materials and activities should be included. The curriculum is competence based and puts much emphasis on assessment by both Continuous Assessment and examination. The above statement therefore implies that use of Continuous Assessment will help in identifying areas of remedial teaching to learners by finding out what to teach and how to teach it to enable the learner achieve the required competences. This therefore influences the performance among learners as it can be realized through the obtained grades in PLE.

Sichagi (2007) observes that through assessment and evaluation, the teacher is able to determine the effectiveness of the teaching and learning strategy, procedures/activities and the resources used. More-over, the data so collected can be used by students, parents, other teachers and the society at large for job marked placement, therefore call for evaluation that is accurate and unbiased in Mathematics. Assessment and evaluation play a great role in shaping the students' attitude towards the subject especially when marking and correcting their work. There is need to guide the students well in places where they have made mistakes so that they can obtain better grades especially at end of primary cycle. The above observation therefore necessitates that in executing their work, teachers need to give feedbacks that are encouraging and can change the learner's attitude towards Mathematics and subsequently improve on their performance by applying Continuous Assessment.

Inglis (2008) states that Continuous Assessment is not just used to give a grade but is done during the course to help pupils improve. This is not to put pressure on pupils but to support them. The quality of feedback is crucial. This type of assessment is called assessment for learning and pupils are involved as much as possible.

This therefore means that for there to be a relationship between learning and obtaining good grades, Continuous Assessment should be embraced by teachers in primary schools.

2.3 Continuous Assessment and coverage of prescribed syllabus

Beryl and Jean (1991), note that among the aims of teaching Mathematics is the in-depth study in this subject. They assert that flexible time tables and attractive mathematical resources in the primary school give children opportunities to spend more time exploring ideas and using apparatus creatively for mathematical development. Spending hours through exploration and using apparatus are catered for by ensuring that the syllabus is covered adequately. This assertion implies that Continuous Assessment is vital having been done by the teachers through observation especially using apparatus. Therefore, Continuous Assessment is quite linked to the coverage of the syllabus in matters pertaining to giving children opportunities to spend more time as they explore ideas and using apparatus creatively which brings in-depth understanding of Mathematics among these children.

Sutherland (1997) puts it that ultimately the success of curriculum will depend on the receptiveness of the learners. Consequently we have to record that it is not enough to decide unilaterally what is good for the young, if they are not motivated to learn, the schools efforts are in vain. We have therefore in making curricular decisions to consider which principles are likely to produce a curriculum stimulating to the young or how they can be convinced of the value of a predetermined curriculum. Therefore the curriculum designed should cater for holistic learning such that the learner is able to get motivated to learn. This will be followed by ensuring that Continuous Assessment is done so that the whole process of learning becomes beneficial to the learner. This can easily be realized by ensuring that the syllabus coverage is emphasized.

NCDC, Uganda (2012), emphasizes use of Continuous Assessment to supplement on the formative and summative assessments which can be done through observation, class work, home work and topical tests. It goes on to say that the syllabus should be the major guide in formulating competences for assessment. Assessment competences are at the end of every topic which will act as a guide to formulate other relevant ones. Besides, it is important to construct a table of specifications whenever one is setting test items together with the marking guide; categories of knowledge, comprehension and application requiring deductive and inductive reasoning should be an integral part of assessment. Relating to the above, it is ideal for candidates to be assessed basing on the syllabus coverage so that pupils can ably be helped in acquiring the necessary information that leads them to improve performance.

Ogunniyi (2000) observes that the teacher can determine his learners progress through the use of series of tests. From such analysis, he is able to decide whether to modify, abandon a teaching technique or teach the content all over again with the aid of appropriate audio-visual materials. Thus we see continuous interplay between measurement or testing and evaluation in the teaching – learning process. The implication of the above observation is that modification of teaching techniques should be done in relation to the different topics handled at primary level. Therefore for Continuous Assessment to be effective, the coverage of the identified topics should be highly considered.

Suffolk (2004) observes that oral written class work and home work are used by the teacher to find out whether pupils understand what they are being taught. These are examples of diagnostic tests. Teachers diagnose what is wrong with their pupils' Mathematics and they form an opinion and decide on a course of action. This method is used intuitively throughout the learning process. Its main role is to discover successes and failures in learning and to provide feedback that can be used to improve the course. This can be ably done by emphasizing the topic coverage so that the feedback is seen topic by topic.

Ministry of Education and Sports (2014) notes that, apart from the skills of test construction measuring cognitive aspects of learning, teachers should also be able to measure the learners' affective attributes such as attitudes, motives, interests, values and

other personality characteristics. Such characteristics could be as important as others associated with intelligence. They could assist the teachers and administrators in understanding the learners better, both in the process of education and in the practical affairs of everyday life. They could help us answer questions such as why learners perceived to have high academic abilities do not do well at school. They also provide clues about the interest patterns of learners which could be used in their placement into schools of higher learning for employment purposes"

The above article infers that testing should be used to help the learner acquire life long learning whereby whatever the learner acquires makes him progress to other higher levels as well as pursuing the desired career that will help him get employment. This life long learning can be acquired through Continuous Assessment as this is one among ways in which performance can be improved as having learned on the topics that promote attitudinal change during syllabus coverage.

Thornes (2006) observed that students have problems in recognizing angle properties of circles or fail to attempt the question because they perceive it to be too hard and often target the properties of cyclic quadrilaterals or else forget that these only apply to cyclic quadrilaterals, for example, opposite angles are equal. He further says often students do not realize that there are many possible ways to do a question. Some solutions are shorter and therefore more efficient than others but any correct solution should be acceptable . It might be useful to see how many unique solutions can be provided for a particular question. The above scenario indicates that although there may be difficult topics in Mathematics, it seems that the learners approach to mathematical problems contribute significantly towards the topics labeled difficult. Otherwise it would be assumed that the so called difficult topics can be dignified and so can appear simpler for the learners. However, if such topics can be identified, then they can be ably handled through Continuous Assessment which subsequently would improve the performance in Mathematics as per to the prescribed Mathematics syllabus.

National Council of Teachers of Mathematics (2005) indicates that students who have difficulty in Mathematics may need additional resources, such as after school programs, peer mentoring or cross age tutoring. Likewise, students with special interests or expectation talent in Mathematics may need enrichment programs or additional resources

to challenge and engage them. The talent and interest of these students must be nurtured and supported so that they have the opportunity and guidance to excel. Following the above observation, Continuous Assessment can be ably applied to support the above statement in such a way that performance can be improved. This can clearly be done by identifying difficult topics/areas in Mathematics so that this assessment can help both categories namely those who have difficulty and those talented that need challenging tasks. This is usually supplemented by covering the Mathematics syllabus

Sichagi (2007) discovered that many students find topics difficult due to the main reason that the question have lengthy wording coupled with their inability to express the given information in algebraic relation leading to the majority of the students put off at the initial stage. This therefore implies that the topics that have algebra and those with questions that are wordy make such topics difficult to the students to be encouraged to read extensively because the wordy question provides generous and adequate information with which to tackle the problem. Learners need to be guided that in reading a question, they should keenly look for inequality expressions. This can ably be done through Continuous Assessment basing on the coverage as far as Mathematics syllabus is concerned.

Paris (1991), suggests that; another advantage of Continuous Assessment that influences learner's performance is that it places teachers at the centre of all performance assessment activities. It encourages more teacher participation in the overall assessment or grading of his learners. Teachers must be given opportunities to select and review assessments so that they become involved and knowledgeable in the process. Through this approach, teachers would be able to integrate assessment and assessment results into instructional practice. Teachers will be expected to incorporate assessment into the larger learning framework and possibly to provide evidence regarding how assessment information is used to inform and guide instruction for individual learners. According to Lewis (1997), with Continuous Assessment teachers must embed the assessment in their instruction, score the assessments and discuss standards for good learners' work with colleagues, parents and learners. This can ably be done by ensuring that topics are well covered so that there is an integration in learning.

According to Hattie (1999), feedback has a significant impact on learning; it has been described as "the most powerful single moderator that enhances achievement." The main objectives of feedback are to, Justify to students how their mark or grade was derived, Identify and reward specific qualities in student work, guide students on what steps to take to improve, motivate them to act on their assessment and develop their capability to monitor, evaluate and regulate their own learning (Nicol, 2010). Adequate feedback is obtained from Continuous Assessment. This helps to improve performance. To benefit student leaning, feedback needs to be, constructive: as well as highlighting the strengths and weaknesses of a given piece of work, it should set out ways in which the student can improve the work, Timely: Give feedback while the assessed work is still fresh in a student's mind, before the student moves on to subsequent tasks and Meaningful: It should target individual needs, be linked to specific assessment criteria, and be received by a student in time to benefit subsequent work.

Nicol (2010) states that feedback is valuable when it is received, understood and acted on. How students analyze, discuss and act on feedback is as important as the quality of the feedback itself. Through the interaction students have with feedback, they come to understand how to develop their learning. This is easily achieved through Continuous Assessment and is as important as it provides a basis for analyzing the relationship between Continuous Assessment and the end of term scores in Mathematics.

2.4 Research Questions

This study was guided by the following questions:

i. In which ways does Continuous Assessment influence end-of-term scores obtained in Mathematics by pupils in Ihunga Sub-County?
ii. In which ways does Continuous Assessment in Mathematics influence grades obtained in PLE by pupils in Ihunga Sub-County?
iii. In which ways does Continuous Assessment influence the coverage of prescribed Mathematics syllabus by pupils in Ihunga Sub-County, Ntungamo District in Uganda?

CHAPTER THREE
METHODOLOGY

3.0 Introduction

This Chapter presents the research design, study population and sampling design, Data Collection techniques and tools, and quality control of data collection instruments.

3.1 Research Design

A Cross-sectional research design was used to establish the influence of Continuous Assessment on pupil performance in Mathematics. The cross-sectional research design was used because it was able to generate a sizable amount of data from a cross-section of the target population. Further more, the researcher opted for this design since the study recorded in specific time certain characteristics of a representative sub-set of the population to include pupils' achievement grades at PLE and end of school term scores, evidence of knowledge, attitude and practice of Continuous Assessment in the classroom, and syllabus coverage among others. In addition, limited by time, resources and availability of longitudinal data, the researcher restricted the study to interactions of respondents.

3.2 Study Population

The target population included 95 teachers and 15 head teachers of the 15 primary schools in Ihunga Sub County, Ntungamo District totalling to 110.

3.3 Sample Size

The sample size consisted of 71 teachers and 15 head teachers that were purposively selected as key informants on the classroom practice of Continuous Assessment strategies. The determination for sample size was based on guidelines given by Morgan and Krieejie (1970). This was ideal for the study because it was representative of the total population studied.

Table 1 contains the details of the various categories of participants in the study.

Table 1: Number of participants in the study.

S/No.	Category	Population	Sample
1.	Head teachers	15	15
2.	Teachers	95	71
	TOTAL	**110**	**86**

The study sample included 15 head teachers and 71 teachers from Ihunga Sub-county, Ntungamo district in Uganda.

The categories of respondents in the Table 1 were included in the study because all were directly involved in the implementation of Continuous Assessment and performance of pupils in primary schools in Uganda.

3.4 Sampling Techniques

Multi-stage and purposive sampling techniques were used in the research. Multi-stage random sampling enabled the researcher to select one sub-county from the six sub-counties in Kajara County, Ntungamo district.

Head teachers and Mathematics teachers were purposively included in the study because of their unique nature of being the sole implementers of Continuous Assessment in Mathematics and performance. This method was appropriate for the study because the researcher's judgement was useful to ascertain that the sample of headteachers and teachers was representative of the target population.

3.5 Data Collection techniques and Tools

Survey and Focus Group Discussion methods were used to collect relevant data. Tools for data collection included Questionnaires, and Focus Group Discussion Guide. Questionnaires were used because they are easy when collecting and analysing data. Focus group discussion guide was used because it allows for probing further and it also allows for observation.

Questionnaire

The questionnaires were used to ensure that respondents express their opinions about the study. Questionnaires were used because they generate a sizable amount of data in a short period of time from many respondents. Since the head teachers and teachers were implementers and supervisors, it was revealed that their views were very crucial to the study. This instrument targeted teachers and head teachers. The questionnaire contained hypothetical statements related to the research questions. These statements were ranged from strongly agreed to strongly disagree.

The instrument for the teacher and head teacher are alike, and were self administered questionnaires. In addition, the head teacher provided PLE grades for the 2012 candidates and the teacher provided end of school Term I scores for the current P 7 pupils. This information was captured in the *Score Sheet.*

Focus Group Discussion Guide

The questions in the Focus Group Discussion Guide were derived from the head teacher and teacher's questionnaires to corroborate the responses of the teacher and head teacher on the practice of Continuous Assessment and syllabus coverage. This was mainly used to ascertain the relevancy of the implementation of Continuous Assessment by teachers.

3.6 Quality Control of Data Collection Instruments

Data quality control refers to the precise description of validity and reliability of instruments to be used. This is encouraged as the pilot findings to enable the researcher to re-design the research instruments to improve the validity and reliability of data.

Validity is the extent to which the instruments used during a study measure the issues they intend to measure (Amin, 2005). Burns and Grove (1993) as alluded to by Yaghmaie (2003) stated that content validity is obtained from three sources: literature, representatives of the relevant populations, and experts. The researcher chose to use a combination of sources that is, literature and experts. The researcher sought expert judgment of five personnel identified from the administrative Sections of Continuous Assessment and Test Development at Uganda National Examinations Board (UNEB).

The average CVI evaluated from the five experts was found to be an acceptable value of 0.90 as in here under;

$$CVI = \frac{No.\ of\ items\ rated\ very\ \text{Re}levant\ \&\ quite\ relevant\ by\ \exp erts}{Total\ No.\ of\ items}$$

$$CVI = \frac{n\ 3/4}{N}$$

$$CVI = \frac{27}{30} = 0.90$$

Therefore, the instruments used to collect data were valid.

Reliability is the extent to which the measuring instruments produce consistent scores when the same groups of individuals are repeatedly measured under the same conditions (Amin, 2005). Consequently, after pre-testing the questionnaire, the internal consistency of the items were evaluated under the thematic areas of knowledge, attitude and practice of CA using Cronbach's Alpha coefficient, α .

Table 3.5 Cronbach's Reliability Coefficient for the Questionnaire

Questionnaire Content Domain	Cronbach's alpha
Items on Knowledge of Continuous Assessment	0.736
Items on Attitude of Continuous Assessment	0.771
Items on Practice of Continuous Assessment	0.790
Average reliability	**0.766**

According to George and Mallery (2003) a value greater than 0.7 is acceptable. Since the average reliability is 0.766 which is greater than 0.70 therefore the instruments were confirmed reliable.

3.7 Research Procedure

After the research committee in the department of educational policy, planning and management of Kyambogo University had passed the proposal, the researcher embarked on the data collection process.

The Questionnaire and Focus Group Discussion Guides were prepared and packed according to schools that were to participate in this study.

A letter of authority was obtained from the head of department-education policy planning and management to allow the researcher to access the primary schools in Ihunga Sub-county, Ntungamo District. The researcher visited every school under study. The participants were 86 from 15 primary schools. Questionnaires and Focus Group Discussion Guide were administered to Head teachers and teachers. After data was collected from the field, the researcher assembled responses for analysis and interpretation.

3.8 Ethical Consideration

Since the study used a range of methods for collecting data, a number of common ethical issues were considered at various stages of the research, such as: self-completed questionnaires and the Focus Groups Discussion. Some of the issues included; guaranteeing anonymity/confidentiality, consent, the right to participate and to withdraw, and explaining the purpose of the research study, the use of tape recorder and reporting the findings.

In relation to the self-completed questionnaires, Cohen, Manion and Morrison (2003) state that 'the obligation to protect the anonymity of research participants and to keep research data confidential is all-illusive, it should be fulfilled at all costs unless arrangements to the contrary are made with the participants in advance'. In this study, all the teachers and head teachers who completed the questionnaires were guaranteed anonymity and confidentiality.

The essence of anonymity as Cohen and Morrison (2003) explain is that information provided by participants should in no way reveal their identity. Also, the covering page of the questionnaire provided information relating to the purpose of the study, highlighting its relevance to teachers' classroom practices. This information was designed to encourage the teachers' classroom practices. This information was designed to encourage the teachers to complete the questionnaires. According to Cohen, Manion, and Morrison, respondents cannot be coerced into completing a questionnaire. During the distribution of the questionnaires, teachers were not under any obligation to complete the questionnaire

and therefore the decision whether to become involved and when to withdraw from the research was entirely theirs.

The respondents who participated in the focus groups could not be guaranteed anonymity; rather they were assured of confidentiality. According to Cohen, Manion and Morrison (2003) this is the second way of protecting a participant's right to privacy. Further more, prior to each interview, the researcher re-stated the purpose of the study, assured teachers and head teachers of confidentiality and told them they had the right to withdraw when they felt so.

The identity of all respondents remained anonymous in the data collected and in the reporting.

3.9 Data Analysis

Data was analysed using qualitative and quantitative techniques.

3.91 Qualitative Analysis

Qualitative data were descriptively analysed by examining the content of the data through identifying the distinctive categories that emerged from the data. Quantitative data analysis was used to help the researcher to analyse data which was in words.

Qualitative information from focus groups respondents were synthesized and used to substantiate the responses of teachers and head teachers with respect to practice of Continuous Assessment and syllabus coverage.

3.9.2 Quantitative Analysis

Quantitative data accruing from the study were analysed using descriptive statistics.

Descriptive statistics

Demographic distributions of the respondents and preliminary exploration of Continuous Assessment implementation were presented as frequencies or percentages in tabular form.

3.10 Limitations to the Study

Different limitations hindered the progress of this research, for instance difficult to obtain data that provided much detailed about Continuous Assessment and its influence on pupils performance since Continuous Assessment records were scanty in primary schools under the study. The study was limited by the weakness of the likert scale as participants avoided extreme categories and tended to agree with the statements as they were presented. Poor responses from some respondents as questionnaires were filled carelessly because of lack of incentives. Some respondents declined from participating in the study while others continued to postpone the time for receiving the instruments. Whereas the test instrument used for end of term in the 15 schools selected were the same, the scoring exercise was not standardized. The process of scoring pupils' test scripts was not preceded by a "norming session" in which teachers meet and practice rating as many as 10 example scripts.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter represents demographic information of the respondents, presentation, analysis and interpretation of data on Continuous Assessment and performance in Mathematics by pupils in primary schools in Ihunga Sub-county, Ntungamo District in Uganda. Presentation, analysis and interpretation of data is done according to the research questions.

4.2 Demographic Information of the Respondents

The researcher concentrated on the gender, age, level of education and experience in teaching of the relevant respondents.

4.2.1 Gender of the Respondents

The gender of the respondents that participated in the study is shown in Table 4.1.1 as follows

TABLE 4.1.1 Gender of respondents

Respondent	Frequency	Percentage (%)
Male	63	73.3
Female	23	26.7
Total	86	100

Table 4.1.1, 73.3% of the respondents were males while 26.7% were females. This indicates that there were more males involved in the study compared to females. This implies that the findings of the study are more inclined to the opinions of males as compared to the females a fact that the study was gender biased.

4.2.2 Age of the respondents

The age of the respondents that participated in the study is shown in Table 4.1.2 as follows.

Table 4.1.2 Age of the respondents

Age	Frequency	Percentage (%)
Less than 25	6	6.9
25-30	9	10.5
31-35	19	22.2
36-40	23	26.7
Above 40	29	33.7
Total	86	100

Table 4.1.2 shows that 33.7% were above 40 years, 26.7% were between 36-40 years, 22.2% were between 31-35 years, 10.5% were between 25-30 years while only 6.9% were below 35 years. The above information implies that the responses were got from mature persons and therefore reliable.

4.2.3 Levels of Education

The level of education of the respondents that participated in the study was also considered. Table 4.1.3 shows the qualification of the respondents.

Table 4.1.3 Qualifications of the respondents

Qualification	Designation				Total	
	Head teacher		Teacher			
	Freq	Percent	Freq	Percent	Freq	Percent
Bachelors Degree	1	6.7	7	10	8	9.3
Diploma	10	66.7	19	26.7	29	37.7
Grade III	4	26.6	45	63.3	49	56.9
Total	15	100	71	100	86	100

Table 4.1.3 shows that 49 respondents (57%) were qualified grade III teachers, 29 respondents (33.7%) have diplomas while 8 respondents (9.3%) have degrees. This reveals that the respondents' level of education was sufficient enough for the study and therefore competent enough to provide adequate responses. This is so because teachers with grade III certificates and those with diplomas are the ones directly concerned with the implementation of Continuous Assessment.

4.2.4 Experience in teaching

The study considered the number of years the respondents have in teaching. This was to establish whether teachers had enough experience and capacity to carryout Continuous Assessment. The years of teaching experience of respondents is shown in Table 4.1.4.

Table 4.1.4 Teaching experience of the Respondents

Teaching experience (in years)	Frequency	Percentage (%)
1 – 5	8	9.3
6 – 10	11	12.8
11 – 15	25	29.1
16 – 20	13	15.1
More than 20	29	33.7
Total	**86**	**100**

Source: Teachers data with the questionnaire

The findings in Table 4.1.4 revealed that 29 out of the 86 respondents representing 33.7% have the teaching experience of more than twenty years, 25 out of 86 respondents representing 29.1% have teaching experience of 11-15 years and 13 out of 86 respondents representing 15.1% have the teaching experience of 16-20 years. Other respondents 11 out of 86 (12.8%) and 8 out of 86 (9.3%) have 6-10 and 1-5 years of teaching experience respectively. This suggests that the teaching experience is adequately enough to handle Continuous Assessment to the expected levels. According to the findings, 80% of the respondents have more than 10 years of the teaching experience. This therefore is evident

enough that teachers can implement Continuous Assessment amicably to improve performance of learners.

4.3.1 Research Question One: In which ways does Continuous Assessment in Mathematics influence End-of-term scores obtained by pupils in primary schools in Ihunga Sub-County?

To respond to the first research question, a series of questions were asked. Responses: "strongly agreed" and "agreed" are reported as "agreed" while responses "strongly disagreed" and "disagreed" are shortened and reported as disagreed. Therefore, data presented in Table 4.3.1 are reported in terms of "agree" (A), "disagree" (D) and not sure (NS) responses.

Table 4.3.1: Continuous Assessment in Mathematics and End-of-Term scores obtained by pupils.

	Statement	SA		A		NS		D		SD		Total	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
A1	End of unit tests are the best methods of getting data for assessing pupil's performance	34	40%	42	49%	10	11%	00	0%	00	0%	86	100
A2	Continuous Assessment work best in mathematics for small classes and not for large classes in support of end of term scores	28	33%	28	33%	20	23%	10	11%	00	0%	86	100
A3	Continuous Assessment requires frequent tests so as to improve end of term scores	41	48%	20	23%	15	18%	10	11%	00	0%	86	100
A4	Continuous Assessment is a good measure that can effectively assess pupils' end of term scores	00	0%	33	38%	53	62%	00	0%	00	0%	86	100
A5	Previous records of Continuous Assessment in mathematics help pupils to improve on their end of term scores	00	0%	00	0%	10	11%	28	33%	48	56%	86	100
A6	Mental work in mathematics during class teaching helps pupils to improve on their end of term scores.	00	0%	10	11%	28	33%	48	56%	00	0%	86	100
A7	Continuous Assessment done during end of unit tests contribute to end of term scores.	00	0%	41	48%	35	40%	10	11%	00	0%	86	100

A8	Continuous Assessment is not systematic and comprehensive enough to contribute to end of term scores	69	80%	17	20%	00	0%	00	0%	00	0%	86	100
A9	There is no need for continuous Assessment in mathematics since the marks obtained are not included in the end of term scores.	57	66%	20	23%	9	11%	00	0%	00	0%	86	100
A10	Results from Continuous Assessment in mathematics help teachers to improve on their teaching.	00	0%	15	18%	61	71%	10	11%	00	0%	86	100
	Total	229	27%	226	26%	241	28%	116	13%	48	6%	860	100

Source: Questionnaires filled by respondents

Regarding the questionnaire item on whether end of unit tests are the best methods of getting data for assessing pupils performance, Table 4.3.1 indicates that 78 out of 86 respondents representing 88% agreed while 10 out of 86 respondents (12%) were not sure. This suggests that end of unit tests are the best methods to use for assessing pupils' performance. Since it was revealed that end-of-unit tests are vital towards assessing pupils' performance, then there is need to establish why performance has remained low. This may be due to inadequate mode of implementation of Continuous Assessment by teachers.

Table 4.3.1 further indicates that Continuous Assessment works best in small classes compared to large ones. 56 out of 86 respondents (65%) agreed to this question while 20 out 86 (23%) disagreed and 10 out of 86(12%) were not sure. This reveals that in implementing Continuous Assessment to improve performance among pupils, small classes are more suitable when using Continuous Assessment as a way of improving end-of-term scores. This would mean that large classes should be put into streams for adequate handling such that Continuous Assessment goes ahead to improve performance among learners.

To establish whether Continuous Assessment requires frequent tests so as to improve end-of-term scores, Table 4.1.3 indicates that 61 out of 86 (71%) agreed, 15 out of 86 (17%) were not sure while 10 out of 86 (12%) disagreed. This suggests that Continuous Assessment should be done frequently such that end-of-term scores can be improved. The dilemma here is that the

respondents are aware of the use of frequent tests to improve on performance but yet; this has not yielded the expected results.

Table 4.3.1 further indicates that 53 out of 86 (62%) were not sure whether Continuous Assessment is a good measure that can effectively assess pupils end-of-term score. 33 out of 86 (38%) agreed. This implies that Continuous Assessment is not utilized as a measure that can effectively influence end-of-term scores among primary school pupils to improve on their performance. The fact that most respondents were not sure of whether Continuous Assessment being a good measure to effectively assessing improvement of pupils end-of-term scores, there is a likelihood that teachers are not well versed with the implementation of Continuous Assessment.

Regarding the questionnaire item that previous records of Continuous Assessment in Mathematics help pupils improve on their end-of-term scores, Table 4.3.1 shows that 76 out of 86 respondents representing 88% disagreed while 10 out of 86(12%) were not sure. This reveals that Continuous Assessment records in Mathematics are either not kept or used to help pupils improve on their end-of-term scores. This was ascertained by the fact that there was scanty evidence of the records kept of Continuous Assessment results either from end-of-unit tests or either end-of-term tests. The only available records were for mock examinations.

To establish whether mental work in Mathematics during class teaching helps pupils to improve on their end-of-term scores, Table 4.3.1 indicates that 48 out of 86 respondents representing 56% disagreed, 28 out 86 (32%) were not sure while 10 out of 86 (12%) agreed. This suggests that since a big percentage (56%) disagreed and 32% were not sure, mental work is not used during class teaching in Mathematic and therefore is not useful in helping pupils to improve on their end-of-term scores.

Table 4.3.1 further indicates that on whether Continuous Assessment done during end of unit tests contributes to end-of-term scores, 41 out of 86 respondents representing 48% agreed, 35 out of 86 (40%) were not sure while 10 out of 86(12%) disagreed. This reveals that end of unit tests may either contribute to the end-of-term scores (48%) or may not. It may be assumed that the 40% who were not sure do not carryout Continuous Assessment using end of unit tests and therefore may not look at it as necessary.

To establish whether Continuous Assessment is not systematic and comprehensive enough to contribute to end-of-term scores, Table 4.3.1 shows that 86 out of 86 respondents representing 100% agreed. This implies that Continuous Assessment is not used to support end-of-term scores. This was also reflected during Focus Group Discussion where respondents agreed that Continuous Assessment is hardly or rarely used as a measure of improving end-of-term scores. This would go a long way to conclude that teachers as the best implementers of Continuous Assessment are not doing their work. Subsequently, head teachers also do not give support to these teachers as their immediate supervisors.

The questionnaire item that wanted to establish whether there is no need for Continuous Assessment in Mathematic since the marks obtained are not included in the end-of-term scores, Table 4.3.1 reveals that 77 out of 86 representing 90% agreed and 9 out of 86 (10%) were not sure. This suggests that teachers do not utilize Continuous Assessment in Mathematic as a measure of supporting end-of-term scores since the marks obtained during Continuous Assessment are not considered. This indicates that it becomes difficult for teachers to monitor pupil's improvement on performance in Mathematics through implementation of Continuous Assessment.

Finally, on finding out whether results from Continuous Assessment in Mathematics help teachers to improve on their teaching, Table 4.3.1 indicates that 61 out of 86 respondents representing 71% were not sure, 15 out of 86(17%) agreed while 10 out of 86 (12%) disagreed. This suggests that Continuous Assessment in Mathematics minimumly help teachers improve on their teaching since 83% of the respondents were not sure and disagreed. This may be assumed that being not sure is an indicator of failure to utilize Continuous Assessment in Mathematics to improve on classroom teaching and probably that is why the overall improvement in performance in Mathematics has remained low among pupils.

In another development, the Focus Group Discussions were used to supplement on the questionnaire items to ascertain whether there is an influence of Continuous Assessment in Mathematics on end-of-term scores. Respondents revealed that Continuous Assessment was introduced when they were already used to end-of-term and year assessment. This was true as seen from their years in teaching as 80% have more than 10 years in teaching. They therefore claimed that adapting to the new mode of assessment was still a challenge to them. They also

revealed that refresher courses in Continuous Assessment were not readily available and therefore, there was scanty information about it since there were no references. They further revealed that Continuous Assessment is hardly used for purposes of end-of-term scores since the results are not considered for either end-of-term scores or included on PLE. However, during these discussions respondents agreed that if Continuous Assessment was used appropriately, it would have an influence on the end-of-term scores and there would improved performance.

The overall results reveal that Continuous Assessment in Mathematics influence end-of-term scores. Data presented above reveals that Continuous Assessment in Mathematics influences end-of-term scores in a number of ways; including; end of unit tests as the best method of getting data for assessing pupils' performance, Continuous Assessment work best in Mathematics in small classes, and Continuous Assessment requires frequent tests to improve on end-of-term scores. However, data indicates that Continuous Assessment is not systematic and comprehensive enough to contribute to end-of-term scores as well as that there is no need for Continuous Assessment in Mathematics since marks obtained are not included in the end-of-term scores. Elsewhere, respondents who were not sure in most of the questionnaire items revealed that they were not conversant with the implementation of Continuous Assessment in Mathematics to promote end-of-term scores since it was not a common practice.

Finally, in establishing the influence of Continuous Assessment in Mathematics on improvement of end-of-term scores, data available reveals that 455 out of 860 representing 53% agreed, 241 out of 860 (28%) were not sure while 164 out of 860 (19%) disagreed. This implies that Continuous Assessment has an influence on the improvement of the end-of-term scores.

4.3.2 Research Question Two: In which ways does Continuous Assessment in Mathematics influence PLE grades obtained by pupils in Ihunga Sub-County?

To respond to the second research questions, a series of questions were asked. The responses to the second research question are summarized in the Table 4.3.2.

Table 4.3.2: Continuous Assessment in Mathematics and PLE grades obtained by pupils.

	Statement	SA		A		NS		D		SD		Total	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
B1	Carrying out Continuous Assessment in Mathematics leads to better PLE grades	48	56%	34	40%	04	4%	00	0%	00	0%	86	100
B2	The results of Continuous Assessment can help pupils improve on their PLE grades	10	11%	28	33%	28	44%	07	8%	03	4%	86	100
B3	Continuous Assessment in Mathematics enables pupils to work hard to improve on PLE grades	36	42%	22	26%	20	23%	08	9%	0%		86	100
B4	Continuous Assessment in Mathematics helps to improve pupils performance in other subjects that combine with Mathematics in PLE grading	00	0%	08	9%	62	72%	07	8%	09	11%	86	100
B5	Skills gained to answer questions during Continuous Assessment in Mathematics can enable pupils obtain better grades in PLE	53	62%	23	27%	10	11%	00	0%	00	0%	86	100
B6	Competences gained during Continues Assessment in Mathematics can enable pupils gain confidence and thus get better grades in PLE.	23	27%	29	34%	20	23%	07	8%	07	8%	86	100
B7	Continuous Assessment in Mathematics enables peer evaluation and motivate themselves to achieve better PLE grades	10	12%	16	18%	53	62%	07	8%	00	0%	86	100
B8	Continuous Assessment in Mathematics must be	02	2%	07	8%	61	71%	09	11%	07	8%	86	100

	conducted to all pupils in a class at the same time to ensure better PLE grades												
B9	During Continuous Assessment in Mathematics, the set questions are based on competences stated in the curriculum to promote better PLE grades	05	6%	07	8%	44	51%	20	23%	10	12%	86	10
B10	The class tests and exercises given during Continuous Assessment are based on the three domains to promote better PLE grades	00	0%	05	06%	69	80%	12	14%	00	0%	86	100
	Total	187	22%	179	21%	381	44%	77	9%	36	4%	860	100

Source: Questionnaires filled by respondents

Regarding the question item whether carrying Continuous Assessment in Mathematics leads to better PLE grades, Table 4.3.2 indicates that 82 out of 86 respondents representing 96% agreed. 4 out of 86(4%) were not sure. This implies that carrying out Continuous Assessment in Mathematics leads to better PLE grades. In spite of the respondents opinion that Continuous Assessment implementation leads to better performance in PLE grades, results on the ground indicate the contrary. There is still poor performance as shown by PLE grades. This leads to doubt whether the teachers as implementers are doing their best to utilize Continuous Assessment as a measure to improve performance on PLE grades. Therefore, more questions remain unanswered.

The questionnaire item that wanted to establish whether the results of Continuous Assessment can help pupils improve on their PLE grades, Table 4.3.2 reveals that 38 out of 86 respondents representing 44% were not sure. 38 out of 86 (44%) agreed while 10 out of 86 (12%) disagreed. This suggests that those who were not sure do not hold Continuous Assessment a necessary measure of improving performance among pupils while the same percentage that agreed look at Continuous Assessment as a measure of helping pupils on the PLE grades. This observation implies that more needs to be done to ensure that Continuous Assessment is owned by the implementers but more especially the teachers.

To establish whether Continuous Assessment in Mathematics enables pupils to work hard to improve on PLE grades, Table 4.3.2 shows that 58 out of 86 respondents representing 68% agreed, 20 out of 86 (23%) were not sure while 8 out of 86 (9%) disagreed. This reveals that Continuous Assessment in Mathematics enables pupils to work hard to improve on PLE grades. This therefore calls for emphasis on the implementation of Continuous Assessment in primary schools so that PLE grades can be improved. However much as the respondents are aware of this, the results still show otherwise, a fact that needs close scrutiny for improved performance through implementation of Continuous Assessment.

Regarding the questionnaire item that Continuous Assessment in Mathematic helps to improve pupils performance in other subjects that combine with Mathematics in PLE grading, Table 4.3.2 indicates 62 out 86 respondents representing 72% were not sure, 16 out of 86(19%) disagreed and 8 out of 86(9%) agreed. This suggests that those that were not sure do not take Continuous Assessment in Mathematics to improve pupils' performance in other subjects that combine with Mathematics in PLE grading. This is assumed that the respondents are not sure of whether there is any linkage of the knowledge of Mathematic that can be utilized in other subjects so that overall performance is improved.

The questionnaire item that skills gained to answer questions during Continuous Assessment in Mathematics can enable pupils obtain better grades in PLE, Table 4.3.2 shows 76 out of 86 respondents representing 89% agreed while 10 out of 86 (11%) were not sure. This reveals that Continuous Assessment in Mathematics helps pupils gain skills that can enable them obtain better grades in PLE. Despite the fact that respondents are aware of the utilization of Continuous Assessment as a measure of enabling pupils obtain better grades at PLE results from the previous years show the contrary, a fact that needs to be scrutinized so that skills gained during Continuous Assessment can as well help in improving grades at PLE.

On whether competences gained during Continuous Assessment in Mathematics can enable pupils gain confidence and thus get better grades in PLE, Table 4.3.2 reveals that 52 out of 86 respondents representing 61% agreed, 20 out of 86 (23%) were not sure while 14 out of 86 (16%) disagreed. This suggests that Continuous Assessment in Mathematics helps pupils to gain competences that give them confidence and thus get better PLE grades. Therefore, utilization of

Continuous Assessment should be more emphasized such that pupils can gain more competences that give them confidence to get better grades at PLE hence improvement on their performance.

Regarding the questionnaire item that Continuous Assessment in Mathematics enables peer evaluation and motivate themselves to achieve better PLE grades, Table 4.3.2 reveals that 53 out of 86 respondents representing 62% were not sure, 26 out of 86 (30%) agreed while 7 out of 86 (8%) disagreed. This suggests that those who were not sure do not look at Continuous Assessment in Mathematics as a measure of enabling peer evaluation to motivate themselves to achieve better PLE grades.

To establish whether Continuous Assessment in Mathematics must be conducted to all pupils in a class at the same time to ensure better PLE grades, Table 4.3.2 shows that 61 out of 86 respondents representing (71%) were not sure, 16 out of 86 (19%) disagreed while 9 out of 86 (10%) agreed. This implies that respondents do not take Continuous Assessment in Mathematics as important so that it can be conducted to all pupils at the same time to ensure better PLE grades. Carrying out Continuous Assessment to all pupils at the same time would help them identify their performance in relation to their peers and thus encouraging them to work harder and subsequently improve on their performance at PLE.

Table 4.3.2 also reveals that as to whether during Continuous Assessment in Mathematics involves questions that are based on competences stated in the curriculum to promote better PLE grades, 44 out of 86 respondents representing (51%) were not sure. 30 out of 86 (35%) disagreed while 12 out of 86(14%) agreed. This suggests that teachers do not internalize the curriculum so that they can base themselves on the competences in the curriculum to formulate questions that may help pupils get better PLE grades. This failure in curriculum interpretation basing on the suggested competences for assessment may lead to poor performance since pupils may not be helped to gain competences of answering PLE questions amicably thus hindering improved PLE grades.

Finally on whether the class tests and exercise given during Continuous Assessment in Mathematics are based on the three domains to promote better PLE grades, Table 4.3.2 indicates that 69 out of 86 respondents representing 80% were not sure, 12 out of 86 (14%) disagreed while 5 out 86(6%) agreed. This implies that the practice of setting questions during class tests

and exercise basing on the three domains is not common to teachers. This therefore may not promote better PLE grades. There is evidence from PLE papers containing questions that are systematically set to test the three domains namely, the cognitive, affective and psychomotor to cater for holistic learning.

It was however established during Focus Group Discussions that teachers are not well conversant with various strategies that promote achievement of better PLE grades. For example, it was established that Continuous Assessment in Mathematics was not common among teachers therefore not significant to help pupils obtain better PLE grades. It was further revealed that teachers do not consult the curriculum to identify competences that may help pupils get better PLE grades as well as setting questions that are based on the three domains as done by UNEB. It was established that teachers just set questions without any Blue print although they agreed to a certain extent that Continuous Assessment in Mathematics can be a good measure for helping pupils get better PLE grades.

Having analysed the data as indicated in Table 4.3.2 and the information obtained from Focus Group Discussion, the overall results indicate that 381 out of 860 representing 44% agreed that Continuous Assessment in Mathematics influences better PLE grades. 366 out of 860 respondents representing 43% were not sure while 113 out of 860 respondents representing 13% disagreed. This suggests that Continuous Assessment in Mathematics has an influence on obtaining better PLE grades. As established during the Focus Group Discussions, the percentage of those who were not sure revealed that Continuous Assessment in Mathematics can help pupils obtain better PLE grades only that its implementation is not emphasized. This was aligned with the earlier finding that Continuous Assessment was introduced much later when teachers were already in the service and that refresher courses are not readily available together with enough information about it since there are no reference books to consult.

Data presented above, reveals that Continuous Assessment influence PLE Grades obtained by pupils in a number of ways; including; Continuous Assessment in Mathematics leads to better PLE Grades, Continuous Assessment in Mathematics enables pupil's to work hard to improve on PLE Grades and skills gained answer questions during Continuous Assessment in Mathematics can enable pupils obtain better grades in PLE.

4.3.3 Research Question Three: In which ways does Continuous Assessment influence the Coverage of prescribed Mathematics Syllabus by pupils in Ihunga Sub-County.

Responding to the third research question, a series of questions were asked. Responses to this research question are summarized in the Table 4.3.3 as follows.

Table 4.3.3: Continuous Assessment and Syllabus Coverage

	Statement	SA		A		NS		D		SD		Total	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
C1	Continuous Assessment helps in checking whether the syllabus is being covered at the right time.	00	0%	25	29%	28	33%	25	29%	08	9%	86	100
C2	Implementing continuous Assessment in Mathematics puts excessive pressure on the teachers to cover the syllabus.	38	44%	34	40%	14	16%	00	0%	00	0%	86	100
C3	Continuous Assessment in Mathematics is carried out basing on the covered topics in the syllabus.	03	4%	20	23%	38	44%	15	18%	10	11%	86	100
C4	During Continuous Assessment in Mathematics, teachers endeavor to set questions basing on all the topics in primary school curriculum	00	0%	18	18%	69	80%	02	2%	00	0%	86	100
C5	Continuous Assessment in Mathematics is based on the competences that are suggested in the curriculum	00	0%	04	4%	53	62%	15	18%	14	16%	86	100
C6	Teachers try as much as possible to ensure that all the suggested competences in the syllabus are assessed during the course of study.	00	0%	08	9%	34	40%	23	27%	21	24%	86	100
C7	Teachers use the results from Continuous Assessment in Mathematics to check inadequacies in the syllabus coverage.	00	0%	03	4%	38	44%	43	50%	02	2%	86	100

C8	The time allocated to carryout Continuous Assessment in Mathematics leads to failure to complete the syllabus in time.	52	60%	25	29%	09	11.1%	00	0%	00	0%	86	100
C9	The more times Continuous Assessment is carried out, the more chances of finishing the syllabus in time.	00	00%	14	16%	38	44%	34	40%	00	00%	86	100
C10	It Is Through Continuous Assessment in Mathematics that the syllabus coverage can be enhanced.	00	00%	09	11%	36	42%	27	31%	14	16	86	100
	Total	93	11%	157	18%	357	42%	184	21%	69	8%	860	100

Source: Questionnaires filled by respondents

Regarding to questionnaire item on whether Continuous Assessment helps in checking whether the syllabus is being covered at the right time, Table 4.3.3 shows that 33 out of 86 respondents representing 38% disagreed, 28 out of 86 (33%) were not sure while 25 out of 86 (29%) agreed. This implies that Continuous Assessment is not used to cover the syllabus at the right time. This was reflected further from the respondents that were not sure since they revealed that they do not see the relationship between Continuous Assessment and the syllabus coverage. This therefore shows that teachers do not carry out Continuous Assessment in relation to the syllabus coverage, a fact that may lead to failure to improve on the performance of pupils using Continuous Assessment strategies.

The study revealed that implementing Continuous Assessment in Mathematics puts excessive pressure on the teachers to cover the syllabus. This was revealed by Table 4.3.3 where 72 out of 86 respondents representing 84% agreed while 14 out of 86 (16%) were not sure. This suggests that teachers look at Continuous Assessment in Mathematics as a burden to them since it puts pressure on them to cover the syllabus in time. Once this is inhibited by the teachers, then the attitude towards utilization of Continuous Assessment to cover the syllabus in time becomes negative, hence failure to improve on the performance among pupils.

The questionnaire item on whether Continuous Assessment in Mathematics is carried out basing on the covered topics in the syllabus, Table 4.3.2 indicates that 38 out of 86 respondents

representing 44% were not sure, 25 out of 86 (29%) disagreed while 23 out of 86 (27%) agreed. This reveals that Continuous Assessment in Mathematics is not used basing on the covered topics in the syllabus. Where it is done, it was revealed that teachers do not bother to use the covered topics. This therefore suggests that where Continuous Assessment is implemented, the syllabus is not used and thus, there may be a challenge in having improved performance since Continuous Assessment is not utilized basing on the covered topics.

On finding out whether during Continuous Assessment in Mathematics, teachers endeavor to set questions basing on all the topic in the primary school curriculum, Table 4.3.3 shows that 69 out of 86 representing 80% were not sure, 15 out of 86(18%) agreed while 2 out of 86(20%) disagreed. This suggests that Continuous Assessment in Mathematics is not done basing on all the topics covered in primary school curriculum since they were not sure. This further reveals that syllabus coverage is not emphasized during assessment, a fact that does not favour improvement in performance. This is so because for any reasonable performance, in any subject, syllabus coverage is the most important in enhancing improved performance. This therefore calls for the need of implementers of Continuous assessment to ensure that questions set should be balanced according to the given topics in the primary school curriculum.

The questionnaire item on whether Continuous Assessment in Mathematics is based on the competences that are suggested in Mathematics syllabus, Table 4.3.3 reveals that 53 out of 86 respondents representing 62% were not sure, 29 out of 86 (34% disagreed while 4 out of 86 (4%) agreed. This implies that teachers are not aware of the suggested competences that are supposed to guide them during assessment much as they are clearly laid down in the curriculum. It further reveals that some teachers do not look at the suggested competences totally.

To establish whether teachers try as much as possible to ensure that all the suggested competences in the syllabus are assessed during the course of study, 43 out of 86 respondents representing 51% disagreed, 34 out of 86 respondents were not sure while 8 out of 86 (4%) agreed. This suggests that competences as laid down by the curriculum are not assessed. This was further revealed by the number of teachers who indicated that they were not sure as shown in Table 4.3.3. This goes a long way to reveal that failure to assess following the given competences leads to poor performance since assessment is bent to ascertain whether the suggested competences have been achieved and observed.

The questionnaire item on using the results from Continuous Assessment in Mathematics to check inadequacies in the syllabus, Table 4.3.3 indicates that 45 out of 86 respondents representing 52%, disagreed, 38 out of 86 44% were not sure while 3 out of 86 (4%) agreed. This implies that results from Continuous Assessment in Mathematics are not used to check inadequacies in the syllabus coverage. Failure to use the available results of Continuous Assessment to check on the inadequacies in the syllabus suggests that teachers do not look at the results to check on the topics in the syllabus that could lead to poor performance may be due to the teaching methods or incompetences of the teachers themselves.

The study wanted to establish whether the time allocated to carry out Continuous Assessment in Mathematics leads to failure to complete the syllabus in time, Table 4.3.3 indicates that 77 out of 86 respondents representing 89% agreed while 9 out of 86 (11%) were not sure. This reveals that teachers take Continuous Assessment in Mathematics as time consuming and thus hindering them to cover the syllabus in time. This shows that teachers are unaware of the time allocated on the time table that includes time for assessment. This further suggests that more time is allocated to teaching without bothering much about assessment as a measure to check whether learning took place in order to improve on the performance.

To find out whether the more times Continuous Assessment in Mathematics is carried out the more chances of finishing the syllabus in time, Table 4.3.3 reveals that 38 out of 86 respondents representing 44% were not sure, 34 out of 86 (40%) disagreed while 14 out of 86 (16%) agreed. This suggests that Continuous Assessment in Mathematics does not increase the chances of finishing the syllabus in time. This further implies that teachers do not utilize Continuous Assessment as a measure of completing the syllabus, a fact that can lead to poor performance because it is usually assumed that effective coverage of the syllabus leads to improved performance among pupils.

Finally, the questionnaire item that through Continuous Assessment in Mathematics, curriculum coverage can be enhanced, Table 4.3.3 indicates that 41 out of 86 respondents representing 47% disagreed, 36 out of 86 (42%) were not sure while 9 out of 86 (11%) agreed. This reveals that teachers do not look at Continuous Assessment in Mathematics as a way of enhancing the syllabus coverage.

To supplement the questions in establishing whether Continuous Assessment in Mathematics can influence the coverage of the prescribed Mathematics syllabus, Focus Group Discussions revealed that teachers do not see the relationship between Continuous Assessment in Mathematics and the syllabus coverage. They revealed that the syllabus does not clearly indicate the time for Continuous Assessment and therefore they only aim at finishing the syllabus in time by ensuing that they utilize the available time to teach. It was further established that where Continuous Assessment is used, it puts pressure on teachers thus looking at it as time consuming. Further more, it was revealed that the respondents who showed that they were not sure on series of questions were not conversant with Continuous Assessment as well as its implementation.

The overall results of whether Continuous Assessment in Mathematics has an influence on the coverage of the prescribed curriculum, 351 out of 860 respondents representing (40.8%) were not sure, 253 out 860 (29.4%) disagreed while 250 out of 860 (29%) agreed. This suggests that Continuous Assessment in Mathematics has minimal influence on the coverage of the prescribed syllabus. This was revealed well through the Focus Group Discussions as most of the respondents who were sure indicated there was minimal use of Continuous Assessment in Mathematics as it was mainly discovered that it was time consuming and putting pressure on the teachers. This implies that Continuous Assessment in Mathematics has no influence on the coverage of the prescribed Mathematics syllabus.

Data presented above reveals that Continuous Assessment in Mathematics influence syllabus coverage in that the time allocated to carry out Continuous Assessment in Mathematics leads to failure to complete the syllabus in time.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter represents discussion of results, conclusions, recommendations and suggestions for further research. The objectives of the study were to: establish the ways in which Continuous Assessment influence End-of-term scores obtained in Mathematics by pupils in Ihunga Sub-County; establish ways in which Continuous Assessment in Mathematics influence grades obtained in PLE by pupils in Ihunga Sub-County and establish ways in which Continuous Assessment influence coverage of prescribed Mathematics syllabus by pupils in Ihunga Sub County in Ntungamo District in Uganda.

The findings and conclusions to the study are presented in respect to the research objectives.

5.1 Discussion of Results

The study came out with the following results as some of the major findings of the researcher.

i. Continuous Assessment in Mathematics and End-of-term scores obtained by pupils

The study established that Continuous Assessment influences end-of term-scores in many ways including using end of unit tests as the best method of getting data for assessing pupils performance, Continuous Assessment in Mathematics works best in small classes compared to big classes and requires frequent tests to improve on end-of-term scores. It was however established that Continuous Assessment in Mathematics is not systematic and comprehensive enough to contribute to end-of-term scores. Further more, there is no need for Continuous Assessment in Mathematics since the marks obtained by pupils are not included in the end-of-term scores.

This contravenes the fact that NCDC (2012) emphasizes use of Continuous Assessment to supplement on the formative and summative assessments which can be done through observation, class work, home work and topical tests. Therefore, where teachers can not

produce evidence of Continuous Assessment means that there is much to be done about it as this may not help in the improvement in performance.

ii. **Continuous Assessment in Mathematics and Grades obtained in PLE by pupils.**

The study established that Continuous Assessment in Mathematics influences PLE grades obtained by pupils in many ways. It helps pupils to improve by working hard to enable them obtain better PLE grades and gives them confidence and skills gained to answer questions. Continuous Assessment in Mathematics also enables pupils obtain better grades in PLE. However it was established that most respondents do not take Continuous Assessment as important because it wastes time. Further more, most respondents were not conversant with setting questions based on the three domains that are common with PLE setting. This meant that Continuous Assessment should be embraced by the implementers of the curriculum.

This agrees with Sichangi (2007) that looks at assessment and evaluation as key players in shaping learners attitude towards the subject especially when marking and correcting their work, adding that this guides them to identify their mistakes so that they can obtain better PLE grades especially at the end of the primary cycle.

iii. **Continuous Assessment and Coverage of the prescribed Mathematics Syllabus by pupils.**

However the study established that teachers are hesitant to carryout Continuous Assessment because to them, it consumes more time other than teaching.

Furthermore, teachers do not bother to look at the suggested competences for assessment in the syllabus which could otherwise help them to accomplish it in time. It was also found out that Continuous Assessment results are not used and yet it puts pressure on teachers for no purpose.

This disagrees with Sutherland (1997) who observes that in using the curriculum, there is need to ensure that it stimulates the learners during learning, a factor that can be achieved through Continuous Assessment as the syllabus can be covered in the specified time.

5.2 Conclusions

The study established that Continuous Assessment in Mathematics has an influence on end-of-term scores because it is the best method of getting data for assessing pupil's performance although it was found out that Continuous Assessment is not systematic and comprehensive enough to contribute to the end-of-term scores. It was also established that Continuous Assessment in Mathematics enables pupils to work hard to improve performance as well as being confident in their pursuit of getting better PLE grades and finally Continuous Assessment in Mathematics does not influence coverage of the prescribed Mathematics syllabus as most teachers are hesitant to implement it claiming that it consumes time and yet its results are not included at the end of the primary cycle as well as putting teachers on pressure.

Owing to the above observations, it is evident that Continuous Assessment is not emphasized and its implementation is inadequate. This implies that much as there is an influence of Continuous Assessment in Mathematics towards end-of-term scores and grades obtained by pupils in PLE, there is a challenge in the implementation by teachers as there was minimal evidence of its usage. This therefore calls for the following recommendations.

5.3 Recommendations

In view of the evidence gathered by the study and basing on the above conclusion, the researcher makes the following recommendations.

i. Implementation of Continuous Assessment should be emphasized by being accompanied by evidence of the records to improve performance in the end-of-term scores. Teachers as implementers therefore should always have evidence of records on Continuous Assessment.

ii. Continuous Assessment should be emphasized by the teachers as a measure of improving P.L.E grades among pupils in primary schools.

iii. Efforts must be put in place to ensure that Continuous Assessment must be carried out on all the topics prescribed in the syllabus so that improvement in performance can be realized. Head teachers as the teachers' immediate supervisors should ensure that Continuous Assessment is done basing on the covered topics by teachers.

5.4 Suggestions for future research

Since the study only addressed the relationship between Continuous Assessment in Mathematics and end of term scores, grades obtained in PLE and the coverage of prescribed Mathematics syllabus, there is need for a more systematic research to be carried out on teachers' perception towards Continuous Assessment as an area for improving performance.

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APPENDICES

Appendix I

QN. ID ☐☐

QUESTIONNAIRE

Dear respondent,

I am Atuhamye Bernard Great a student at Kyambogo University pursuing a MEd. PPM. I humbly request you to participate in this research by providing information on continuous assessment in your school. Please honestly provide your views since your responses will be kept confidential.

Consent: Do you accept to provide information required?

YES	
NO	

A. BASIC INFORMATION

School name:.....

School status: Government ☐ Private ☐ Community ☐

Gender: Male ☐ Female ☐

Age (in years): Less than 25 ☐ 25-30 ☐ 31-35 ☐ 36-40 ☐ More than 40 ☐

Teaching experience (in years): Less than 1 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐
16-20 ☐ More that 20 ☐

Highest qualification: Phd ☐ Masters degree ☐ Bachelors degree ☐ Diploma ☐
Grade III certificate ☐

B: CONTINUOUS ASSESSMENT

The following statements relate to your views on Continuous Assessment. Indicate the response that most represents your views or opinions. There is no correct answer, the best answers are those that reflect your opinion. Please tick the code that best describes your view.

Code key: S.A – Strongly Agree, A – Agree, NS – Not sure, D-Disagree, SD – Strongly Disagree

	Statement	**SA**	**A**	**NS**	**D**	**SD**
A1	End of unit tests are the best methods of getting data for assessing pupil's performance					
A2	Continuous Assessment work best in mathematics for small classes and not for large classes in support of end of term scores					
A3	Continuous Assessment requires frequent tests so as to improve end of term scores					
A4	Continuous Assessment is a good measure that can effectively assess pupils' end of term scores					
A5	Previous records of Continuous Assessment in mathematics help pupils to improve on their end of term scores					
A6	Mental work in mathematics during class teaching helps pupils to improve on their end of term scores.					
A7	Continuous Assessment done during end of unit tests contribute to end of term scores.					
A8	Continuous Assessment is not systematic and comprehensive enough to contribute to end of term scores					
A9	There is no need for continuous Assessment in mathematics since the marks obtained are not included in the end of term scores.					
A10	Results from Continuous Assessment in mathematics help teachers to improve on their teaching.					
B1	Carrying out Continuous Assessment in Mathematics leads to better PLE grades					
B2	The results of Continuous Assessment can help pupils improve on their PLE grades					
B3	Continuous Assessment in Mathematics enables pupils to work hard to improve on PLE grades					
B4	Continuous Assessment in Mathematics helps to improve pupils performance in other subjects that combine with Mathematics in PLE grading					
B5	Skills gained to answer questions during Continuous Assessment in Mathematics can enable pupils obtain better grades in PLE					
B6	Competences gained during Continues Assessment in Mathematics can enable pupils gain confidence and thus get better grades in PLE.					
B7	Continuous Assessment in Mathematics enables peer evaluation and motivate themselves to achieve better PLE					

	grades					
B8	Continuous Assessment in Mathematics must be conducted to all pupils in a class at the same time to ensure better PLE grades					
B9	During Continuous Assessment in Mathematics, the set questions are based on competences stated in the curriculum to promote better PLE grades					
B10	The class tests and exercises given during Continuous Assessment are based on the three domains to promote better PLE grades					
C1	Continuous Assessment helps in checking whether the syllabus is being covered at the right time.					
C2	Implementing continuous Assessment in Mathematics puts excessive pressure on the teachers to cover the syllabus.					
C3	Continuous Assessment in Mathematics is carried out basing on the covered topics in the syllabus.					
C4	During Continuous Assessment in Mathematics, teachers endeavor to set questions basing on all the topics in primary school curriculum					
C5	Continuous Assessment in Mathematics is based on the competences that are suggested in the curriculum					
C6	Teachers try as much as possible to ensure that all the suggested competences in the syllabus are assessed during the course of study.					
C7	Teachers use the results from Continuous Assessment in Mathematics to check inadequacies in the syllabus coverage.					
C8	The time allocated to carryout Continuous Assessment in Mathematics leads to failure to complete the syllabus in time.					
C9	The more times Continuous Assessment is carried out, the more chances of finishing the syllabus in time.					
C10	It Is Through Continuous Assessment in Mathematics that the syllabus coverage can be enhanced.					

Thank you very much

Appendix II

FOCUS GROUP DISCUSSION GUIDE

Introduction:

1. Welcome
   Introduce the **moderator** and the **assistant moderator** (note –taker).
   Review the following:

- Who you are and what we're trying to do
- What will be done with this information
- Why you asked for their participation and need for honesty

2. Explanation of the process
   Ask the group if anyone has participated in a focus group before. Explain that focus groups are being used more and more often in educational research.

   About focus groups

- We learn from you (positive and negative)
- Not trying to achieve consensus, we're gathering information
- In this research, we are doing both questionnaires and focus group discussions. The reason for using both of these tools is that we can get more in-depth information from a smaller group of respondents in focus groups. This allows us to understand the context behind the answers given in the filled-in questionnaires and helps us explore topics in more detail than we can do in a written survey.

   Logistics

- Focus group will last about 45 minutes
- Feel free to move around
- Comfortable room and arranged seats. Where is the bathroom? Exit?
- Help yourself to refreshments

3. Ground Rules
   Ask the group to suggest some ground rules. After they brainstorm some, make sure the following are on the list.

- Everyone should participate
- Information provided in the focus groups must be kept confidential
- Stay with the group and please don't have side conversations
- We will be tape recording the group; we want to capture everything you have to say; we don't identify anyone by name in our report. You will remain anonymous.
- We want all participants to feel comfortable sharing when sensitive issues come up.

4. Turn on Tape Recorder

5. Ask the group if there are any questions before we get started and address those questions.

6. Introductions
   - Go around table: job here, where you were born

Discussion begins, make sure to give people time to think before answering the questions and don't move too quickly. Use the probes to make sure that all issues are addressed, but move on when you feel you are starting to hear repetitive information.

Questions:

1. Why do you think continuous assessment is not popular among teachers?
2. Do you have evidence of continuous assessment in form of records?
3. Do you include continuous assessment in your planning in terms of time allocation?
4. Do you think continuous assessment promotes PLE grades among pupils?
5. Do you put much emphasis on continuous assessment as means of covering the syllabus in time?

Conclusion

Assistant moderator makes a summary of issues raised in the discussion and asks whether there could be any other matter related to the themes discussed earlier.
That concludes the focus group.

Thank the participants for coming and sharing their thoughts and opinions with the facilitation team.

Materials and supplies for focus groups

- Focus Group Discussion Guide for Moderator
- I recording device
- Batteries for recording device
- Extra tapes for recording device
- Permanent marker for making tapes with FDG name, school and date
- Notebook for note-taking
- Flip Charts

Appendix III

2012 MATHEMATICS PLE SCORE SHEET

School Name:							
School EMIS No.:							

SN	Name Of Candidate	Gender	Aggregate in Mathematics

Appendix III

END OF 1st TERM 2013 P.7 MATHEMATICS SCORE SHEET

School Name:							
School EMIS No.:							

SN	Name Of Candidate	Gender	Score in Mathematics

Appendix V

KYAMBOGO UNIVERSITY

P. O. BOX 1 KYAMBOGO, KAMPALA - UGANDA
Tel: 041 - 285211 Fax: 220464
www. Kyambogo.ac.ug

Department of Educational Planning Management

Date: 26th March 2014

TO WHOM IT MAY CONCERN

This is to certify that **ATUHAMYE Bernard Great, Reg. No. 2011/U/HD/10/MEDPPM,** is a student in our department pursuing a Master's Degree in Education in Policy Planning and Management. He is carrying out research as one of the requirements of the course. He requires data and any other information on this topic entitled:

Continuous Assessment and Performance of Pupils in Mathematics in Primary Schools in Ntungamo District, Uganda.

Any assistance accorded to him is highly welcome. He is strictly under instructions to use the data and any other information gathered for research purposes only.

Thank you

Kyambogo University
FACULTY OF EDUCATION
Komba
19 JUN 2014
HEAD OF DEPARTMENT
EDUCATIONAL PLANNING & MGT

Yours faithfully

Leticia Komba Rwakijuma (Mrs.)
HEAD OF DEPARTMENT