AN EXPLORATION OF TEACHERS' IMPLEMENTATION OF CONTINUOUS ASSESSMENT IN GRADE 10 MATHEMATICS IN OSHIKOTO EDUCATION REGION

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ABSTRACT

The purpose of this research study was to explore the implementation of Continuous Assessment (CA) in Grade 10 Mathematics in Oshikoto Education Region. The study employed explanatory mixed methods research design which was carried out sequentially, beginning with the quantitative phase and then the qualitative phase. Ten Grade 10 Mathematics teachers from ten schools (one from each school) were selected for the quantitative phase which involved the use of questionnaires. From ten teachers, five were drawn for one-on-one semi-structured interviews. In addition to one-on-one interviews, document analysis was also used as an instrument for qualitative data collection. The questionnaires were used to collect data on how the teachers were implementing CA, while interviews and document analysis were used to obtain teachers' understanding, their perceptions toward CA and to analyse the quality of CA instruments used, respectively. The study revealed that the implementation of CA is characterised by many factors which influence its effective implementation. These include lack of training in CA among some respondents, lack of guidance on the development and marking of some assessment tasks, lack of uniformity in the process of CA implementation among the schools which participated, incidents of manipulation of CA marks and issues related to CA validity and reliability, among others. The study concludes that the implementation of CA in the schools which participated is not on par with the national norms. Based on the findings, the study recommends, inter alia, rigorous teacher training and guidance, standardization of CA procedures, monitoring and CA policy-related advocacy to enhance teachers' assessment capacities.

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DEDICATION

This thesis is dedicated to my children, Natangwe, Nadhipite and my lovely daughter Nelago. They have been my source of inspiration as they always cheer me up and renew my energy to work further.

DECLARATIONS

I, Simon Petrus Mupupa, hereby declare that this study is my own work and is a true reflection of my research, and that this work, or any part thereof has not been submitted for a degree at any other institution.

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CA	Continuous Assessment
CIPP	Context Input Process and Product
CPDTLI	Centre for Professional Development, Teaching and Learning Improvement
CRDD	Curriculum Research Development Division
DNEA	Directorate of National Examinations and Assessment
HIV	Human Immunodeficiency Virus
HoD	Head of Department
MoE	Ministry of Education
MoEAC	Ministry of Education, Arts and Culture
NAMCOL	Namibian College of Open Learning
NEACB	National Examination, Assessment and Certification Board
NECTA	National Examinations Council of Tanzania
SPSS	Statistical Package for Social Sciences

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GENERAL INFORMATION

The writing of this thesis coincided with the time during which the Ministry of Education was implementing the periodic reformed national curriculum for basic education, which also coincided with the Ministry of Education being renamed to Ministry of Education, Arts and Culture (MoEAC) in 2015. Against this background, the researcher deemed it appropriate to refer to 'Ministry of Education' (MoE) when citing ministerial documents for accurate referencing reasons, while maintaining MoEAC when referring to the ministry in general.

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

The Namibian education system has two exit levels, namely, Grade 10 and Grade 12 where learners sit for the national examinations at the end of each academic year. As part of the assessment requirements, the Grade 10 candidates are required to accumulate a Continuous Assessment (CA) mark which contributes 35% towards the promotional summative mark, while the examination contributes 65% in Grade 10 Mathematics (Ministry of Education [MoE], 2010).

Continuous Assessment and national examinations assess learning objectives and competencies that are specified in the Grade 10 Mathematics syllabus (MoE, 1999), thus constituting an overlap on assessment content areas. Due to such an overlap, it is reasonable and logical to assume that the marks generated from rigorous, valid and reliable CA could assist in envisaging learners' performance in the national examination because both CA and national examination instruments need to be aligned to the same curricular content and learning objectives prescribed in the syllabus (Adekeye, 2011).

Despite the overlap on assessment content areas, CA in some African countries, for example in Ghana and Nigeria among others, was observed to be variously defective; leading CA marks to be disproportionate with the national examination marks (Addy-Lamptey & Dery, 2006). Namibia is not spared from such disparities between the two marks. The Ministry of Education (MoE) over time noted persistent disparities such as those shown in Tables 1.1 and 1.2 respectively between CA marks compiled at school level and national examination marks in Grade 10 Mathematics.

The national CA Policy creates a better understanding of what CA entails and also provides examples of good practices to help teachers design and implement CA effectively (MoE, 1999). Notwithstanding the guidance through the aforementioned national document, substantive disparities between CA average scores and national examination average scores, as displayed in Tables 1.1 and 1.2, continue to persistently surface. The CA average score/mark refers to the average/mean CA mark for a particular school for the specific syllabus (subject) in a specific year, while the national examination average/mean score is the average examination mark for a particular school for the specific syllabus (subject) in a specific year.

Table 1.1: National CA and Examinations Scores for Grade 10 Mathematics

Year of Assessment	**2010**	**2011**	**2012**	**2013**	**2014**
National Average CA Score (%)	46.4	46.1	47.9	51.9	52.4
National Average EXAMS Score (%)	27.0	41.2	46.1	49.8	51.7

(Source: Ministry of Education, 2010, 2011, 2012, 2013, 2014)

Table 1.2: School Average CA and School Average Examination Scores for Grade 10 Mathematics

School	Year of Assessment and Average Marks in Percentages									
	2010		2011		2012		2013		2014	
	CA	Exams	CA	Exams	CA	Exams	CA	Exams	CA	Exams
S1	50.0	23.8	55.7	46.2	42.9	43.1	57.1	41.5	48.6	40.0
S2	80.0	33.8	58.6	53.8	71.4	73.8	60.8	55.7	68.5	64.3
S3	72.9	31.5	51.4	38.5	51.4	43.1	60.0	54.3	60.8	50.0
S4	51.4	26.2	51.4	45.4	50.0	56.9	57.1	52.3	55.7	54.6
S5	54.3	33.1	57.1	46.2	54.3	56.2	74.3	73.1	72.3	71.4
S6	52.9	26.9	65.7	48.5	61.4	50.0	60.8	57.1	63.1	60.0
S7	51.4	34.6	54.3	46.9	52.9	53.1	49.2	37.1	50.0	37.1
S8	52.9	38.5	47.1	42.3	57.1	53.8	52.3	50.0	52.3	47.1
S9	84.3	30.8	64.3	47.7	48.6	52.3	56.2	55.7	62.3	54.3
S10	74.3	40.0	62.9	68.5	67.1	70.0	75.4	67.1	74.6	71.4

(Source: Ministry of Education, 2010, 2011, 2012, 2013, 2014)

To this effect, little is known at Grade 10 level, for example, lack of confidence among teachers in implementing proper assessment techniques as being one of the factors hampering the effective implementation of CA (Iipinge & Kasanda, 2013). Other research studies conducted in the Oshana and Khomas regions in Namibia on the same topic by Hamukonda (2007) and Eimann (2002) also revealed some shortcomings on CA implementation, for example, poor planning of assessment activities among teachers, poor assessment tasks as well as lack of teacher guidance on CA implementation. It was therefore in view of this contextual background that this study endeavoured to find out how schools were handling the process of CA in Grade 10 Mathematics based on the requirements in the national documents. These documents include the Subject Policy, Subject Syllabus and CA Policy which provide the guidelines for effective CA implementation.

1.2 Contextual View of Continuous Assessment in Namibia

As stated earlier, this study was prompted by the observed disparities between the CA marks generated at school level and national examination marks in Namibia over a number of years. Continuous Assessment is one component of the overall learner assessment process in Grade 10 subjects in Namibia and contributes 35% towards learners' promotional summative grade.

Continuous Assessment in the Namibian context is used as a classroom strategy implemented by teachers to ascertain the knowledge, understanding and skills attained by learners. By implementing CA as a classroom strategy, teachers administer CA in many ways over time, such as Topic Tasks, Topic Tests, Practical Investigations and Projects among many others, to assess the curriculum as implemented in the classroom (MoE, 2010).

Continuous Assessment allows teachers to observe multiple tasks and to collect information about what learners know, understand and can do. By so doing, they also evaluate the effectiveness of their teaching strategies relative to the curriculum and then change those strategies as dictated by the needs of their learners (Du Plessis, Prouty, Schubert, Habib & St. George, 2003).

Continuous Assessment happens regularly during the school year and is an integral part of interactions between teachers and learners. The regular teacher-learner interactions entail that teachers know their learners' strengths and weaknesses so that they do some reviews and remediation before moving on to more intricate work.

Although the content assessed for CA is based on the prescribed learning areas, from personal teaching experience, I have noted that the competencies assessed, the nature and quality of assessment instruments used, as well as the evaluation of learners' CA activities done are solely at the teacher's discretion. A study carried out in Namibia (Mutuku as quoted by Iipinge & Kasanda, 2013) found that the majority of the learners' CA marks in many schools were well above the learners' marks achieved in the national examinations.

The disparity between the two assessment marks as shown in Tables 1.1 and 1.2 respectively compelled the Directorate of National Examinations and Assessment (DNEA), a department which is responsible for national examinations and certification in the Ministry of Education, Arts and Culture (MoEAC), to perform statistical moderation of the CA marks in order to ensure that the internal assessment scores given by different schools as CA marks were comparable throughout the country.

The statistical moderation of CA marks in Grade 10 Mathematics entailed that individual learners' CA marks would need to be adjusted upwards or downwards to conform to the national standard. According to the MoEAC's statistical moderation of learners' CA marks on an annual basis, the implication of statistical moderation on learners' CA is two-fold, i.e., some learners benefit, while others lose out during the adjustment process as their marks get adjusted either upwards or downwards. Whether or not the upward or downward adjustments of learners' CA marks could be avoided requires detailed understanding of how the CA implementation process is being undertaken at school level. This is the focus of this study.

1.3 Statement of the Problem

The disparities between CA and examination marks over the years have prompted the MoEAC to statistically moderate the CA marks compiled by all Grade 10 schools across Namibia. The purpose of moderation is to introduce a common standard that would bring the assessment of individual assessors (teachers) in line with such standard, given the fact that assessment instruments used in the CA process at different schools were unstandardized (Addy-Lamptey & Dery, 2006). Such moderation entails that learners' CA marks would be adjusted upwards or downwards to bring the marks in line with the standard. On the one hand, the disparities between CA marks and national examination marks have become a growing concern to the DNEA.

On the other hand, some Regional Directorates of Education also registered their discontent over adjustment of learners' CA marks as adjustments might have a negative effect on the learners' performance (National Examinations, Assessment and Certification Board [NEACB], 2015). The NEACB (2015) alleged that adjustments of CA were necessitated by the teachers who allocate 'undeserved' or 'cooked' CA marks for the learners.

The disparities between the CA and national examination marks could be a result of various factors, particularly assessment activities undertaken in the CA implementation process across different schools to generate CA marks. Based on the observed disparities between CA and national examination marks displayed in Tables 1.1 and 1.2 (MoE, 2010, 2011, 2012, 2013, 2014), this researcher was of the opinion that the implementation of CA in various schools deserved to be explored to get a deeper

understanding of teachers' CA practices and their views and perceptions on the phenomenon.

1.4 Purpose of the Study

This study was aimed at exploring how Grade 10 Mathematics teachers in Oshikoto Education Region were implementing CA and also the challenges that confronted them regarding implementation thereof; to hear their views and understand how they implemented CA. The study was further aimed at generating information which could serve as feedback to the MoEAC and teacher-educators, such as the University of Namibia, regarding the implementation of CA in Grade 10 Mathematics among school teachers in order to formulate appropriate interventions. The study's recommendations might, in the end, inform policy interventions to redress the disparities between CA and national examination marks.

1.5 Research Questions

The main objective of this study was to explore how teachers were implementing CA in the light of national assessment documents for Grade 10 Mathematics in Oshikoto Education Region. The research questions were as follows:

Main question:

Are CA procedures in Grade 10 Mathematics being implemented in line with the provisions of the national assessment documents: National Continuous Assessment

Policy and Information Guide, Subject Policy and Grade 10 Mathematics Syllabus in the selected schools in Oshikoto Education Region?

Sub-questions:

1. To what extent do Grade 10 Mathematics teachers align Continuous Assessment to the national norms?
2. To what extent do Grade 10 Mathematics teachers cater for various assessment domains when assessing learners on subject learning content?
3. What are the factors that influence the implementation of Continuous Assessment in Grade 10 Mathematics?
4. Which interventions can possibly assist teachers to overcome the discrepancies between CA and national examination marks?

1.6 Significance of the Study

An inquest into the implementation of CA in schools is a cardinal undertaking as it would provide information regarding how CA is being implemented in schools; and what challenges teachers are experiencing regarding CA. Such information might assist the MoEAC in formulating evidence-based interventions to address the challenges, thereby helping teachers to correctly administer CA in the best interest of the candidates whose CA marks are subject to adjustment as a result of statistical moderation. Moreover, it is worth noting that the available information on CA for Grade 10 Mathematics indicates that CA marks are very high compared to national examination marks. This is a concern to MoEAC. Currently, there is limited information available on

how CA is being administered in schools. This study might contribute to filling that information gap on the topic of implementation of CA in Grade 10 Mathematics.

1.7 Limitations of the Study

This research had initially targeted Grade 10 Mathematics teachers with a minimum teaching experience of three years. However, some teachers with the required experience who were approached to take part in the study refused to participate, citing high work load as a reason. Therefore, to meet the intended sample, replacements were done with participants who were willing to participate, although their teaching experience was below three years, which had been set as the minimum requirement. These replacements might have compromised the quality of data collected since some of the participants were not in the profession long enough to have accumulated substantive experience of CA. However, the participants who took part in the interviews met the selection requirements to ensure that the credibility of data may not be compromised further.

1.8 Delimitations of the Study

This research study was conducted in only ten (10) schools in Oshikoto Education Region. Therefore, the findings from this study may not necessarily be a reflection of what is happening in other schools in the same or different regions.

Equally, the sampling method used in this study might not enable the results of this study to be generalised to other schools in Oshikoto Education Region, but was rather limited to the schools which participated in the study.

1.9 Definition of Terms

Continuous Assessment: School-based assessment in which learners are examined continuously over the duration of the school terms, the results of which are submitted and taken into account for promotion purpose.

Continuous Assessment Mark: A consolidated mark derived from different assessment activities such as practical investigations, projects, topic tasks, topic tests and end of term tests which contributes to the learner's promotional mark.

Formative Assessment: An assessment which includes a range of formal and informal assessment procedures conducted by the teachers during the learning process in order to modify teaching and learning activities to improve learner attainment.

Harvest Sheet: A sheet in which Continuous Assessment marks derived from all assessment activities carried out during the school term(s) are recorded; from which some marks will be taken to contribute to the summative or promotional marks.

National Examination: An external examination that is created at a national level by people outside of the school in which the learners are taught.

National Examination Marks: Marks obtained in the national examination.

Promotional Mark: The end-of-year letter grade in a given subject comprising of the Continuous Assessment and national examination marks.

Statistical Moderation: The process that ensures the same assessment standards are applied to learners Continuous Assessment marks.

Summative Assessment: An assessment made at the end of the school year based on the accumulation of the progress and achievements of the learner throughout the year in a given subject.

The CA average score/mark: The average/mean CA mark for a particular school for the specific syllabus (subject) in a specific year.

The national examination average score/mark: The average examination mark for a particular school for the specific syllabus (subject) in a specific year.

1.10 Summary

This chapter discussed and presented the background of the study and contextual view of CA in Namibia, the statement of the problem and aim of this study. The research questions which guided this study were outlined and the key concepts used in the study were clarified. The next chapter focuses on the literature review which underpins this study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter broadly reviews current literature on the implementation of Continuous Assessment (CA). The literature review focuses on what CA is in the Namibian context, the purpose of CA, the different types of CA, characteristics of CA, teachers' role as CA implementers, the extent of variation between CA scores and national examination scores and its causal factors. The chapter then discusses a model which guided this research study and concludes by identifying gaps in the literature. Figure 2.1 presents a schematic overview of the CA-related literature review:

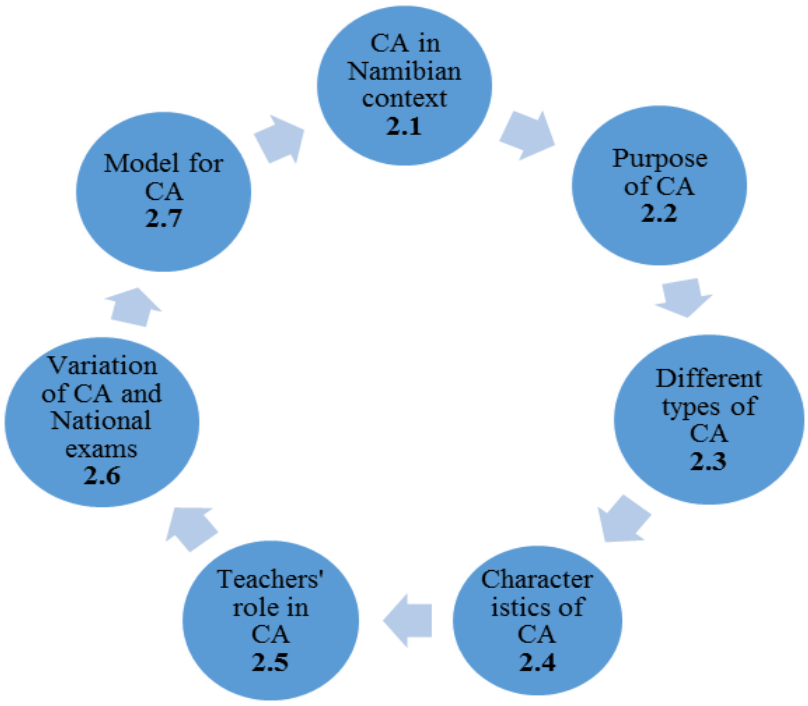


Figure 2.1: Organisation of the Literature Review

2.2 Continuous Assessment in the Namibian Context

The MoEAC's Continuous Assessment (CA) Policy and Information Guide define CA in the Namibian context as an assessment that is done on a regular and unremitting basis through formal and informal undertakings (MoE, 1999). It is meant to be part of the teaching so as to improve learning as well as to shape and direct the teaching-learning process. Figure 2.2 shows various components which form part of the CA process in Namibia.

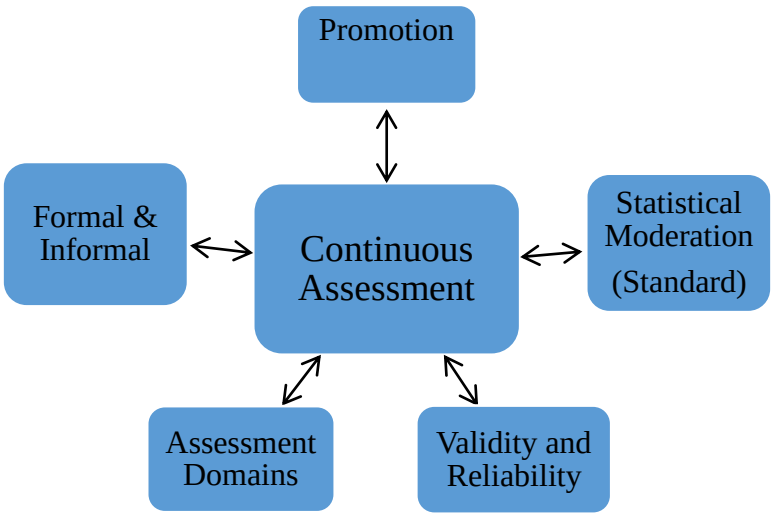


Figure 2.2: Continuous Assessment Process (Namibian Context)

2.2.1 Formal and Informal Assessment

In the Namibian context, formal CA is an assessment that is created with "special thoughtfulness and care and is valid and reliable, made on all class learners, provides the learners with feedback on what they have learned, enables the teacher to assign a letter grade to each learner" (MoE, 1999, p. 40).

For CA, various tasks can be used. These include, but are not limited to, Topic Tests, Projects and Examinations. The tasks are explained as follows:

- A Topic Test refers to a formal assessment that is limited to the competencies covered in one lesson, topic or theme (MoE, 1999).
- Projects are assignments that give learners an opportunity to complete an investigation into one of the topics in the syllabus (MoE, 1999).
- Examinations refer to the assessment undertaken at the end of each term, usually covering the work done over the entire term (MoE, 2010).

Furthermore, the formal assessment is regulated in terms of the minimum number of assessment activities which learners are required to carry out per school term, and in terms of marks each of the assessment activities contributes towards the CA mark (see Table 2.1). Moreover, teachers have to develop their own CA instruments which, according to this researcher's personal experience, might not be standardised across the schools.

Table 2.1: Summary of Continuous Assessment Tasks

COMPONENTS	TERM 1		TERM 2	
	Number & Marks	**Total**	**Number & Marks**	**Total**
Investigations	2 x 15	30	1 x 15	15
Projects			(1 x 30) ÷ 2	15
Topic Tasks	2 x 10	20	2 x 10	20
Topic Tests	(2 x 20) ÷ 2	20	(2 x 20) ÷ 2	20
End of Term Test	65	(65 x 2) 130	130	130

Source: Grade 10 Mathematics Syllabus (MoE, 2010)

On the other hand, informal assessment gathers information about learning through diverse classroom activities at an opportune moment; such as questioning, structured observations and listening to a learner during a presentation. Informal assessments deliver crucial information to teachers that allow them to take action during the teaching and learning process.

2.2.2 Assessment Domains

Alausa (1999) defines CA as "a mechanism whereby the final grading of learners in assessment domains of learning (cognitive, affective and psychomotor) systematically takes account of all their performances during a given period of schooling". A short description of the domains of learning is as follows:

- Assessment in the cognitive domain is connected to the process in which the use of knowledge and understanding is more prevalent.
- The affective domain is predominantly characterised by personality traits such attitudes and interest of a learner.
- Assessment in the psychomotor domain encompasses the learner's capacity to make use of his/her hands to carry out a particular task such as a Project.

In relation to the assessment domains in the Namibian context, CA in Grade 10 Mathematics is based on three assessment objectives which are linked to the assessment domains: objectives A, B and C, respectively. A short description of these domains is as follows:

- Assessment objective A is based on the cognitive domain, whereby basic knowledge and technical skills are assessed (MoE, 2010).
- Assessment objective B is based on the affective domain in which analysis, abstraction and synthesising skills are assessed (MoE, 2010).
- Assessment objective C focusses on the assessment of presentation skills and is classified into the psychomotor domain (MoE, 2010).

Therefore, the formal and informal assessment integrates the three assessment objectives in order for the teacher to assess how well each learner masters the basic competencies prescribed in the subject syllabus and from this gain a picture of the all-round progress of the learner.

2.2.3 Validity and Reliability of Continuous Assessment

The Grade 10 Mathematics Syllabus (MoE, 2010) states that CA elicited through learners' performance in basic competencies should be reliable and valid as it contributes to the end-of-year promotional grade. The MoEAC's CA Policy refers to reliable assessment as an assessment in which results of a particular assessment activity are consistent irrespective of the number of assessors involved in the marking of the activity. According to the DNEA's CA Monitoring and Verification Committee Report (2015), the current practice is that the CA marks submitted to the DNEA's division for the compilation of the Grade 10 end-of-year marks are taken from diverse activities developed, administered and marked by the respective subject teachers.

Despite the guidelines provided in the subject syllabus on the activities to be given for CA, the standards of such activities vary from one subject teacher to another and from one school to another. This researcher is of the opinion that this variance in the standard of activities used for CA makes the reliability of the final marks questionable if there are no control measures in place (Ministry of Education, Arts and Culture [MoEAC], 2015).

Validity on the other hand means that the assessment results can be defended as good to use to evaluate each learner's mastery of the objectives and competencies from the syllabus that the learners actually learned (MoE, 2010). Marks from an assessment activity are valid if the questions match the objectives in the syllabus. In other words, if the content assessed by the activity matches the content actually learned by learners, then the activity is valid (MoEAC, 2015).

The DNEA's CA Monitoring and Verification Committee emphasises that if valid and reliable CA instruments are used at school, the learners' CA marks and examination mark should correlate fairly, unless some intervention was done by the school to remedy the situation when a poor performance was identified in time. Therefore, without valid and reliable assessment of learners' academic skills, instructional decision-making is unlikely to encourage academic competence. Hence, all the components of assessment need to be valid and reliable in order to have a successful teaching and learning process.

2.2.4 Statistical Moderation (CA Standard)

Statistical moderation of learners' assessment is a process aimed at ensuring that marks and grades are valid, reliable and as fair as possible for all learners (MoEAC, 2015). Furthermore, the quality in education programmes has been described as an effort in

meeting specific standards. The lack of common standards for the CA activities used in schools to obtain the marks poses a challenge to the quality of the education provided. Thus, to ensure that the assessment is fair, valid and at the common national standard, the CA marks are subjected to a statistical moderation process against the already common standardised national examination results for respective schools in particular subjects. Although there are different reasons why assessment activities need to be moderated, statistical moderation of CA in Namibia is particularly necessary because diverse assessment activities are used to assess different groups of learners who make up the cohorts that are being assessed nationally (MoEAC, 2015).

Naturally, different schools and institutions apply different standards when assessing their learners for CA. Thus, the aim of statistical moderation is to ensure comparability and judgments carried out by teachers that are central to the quality of that assessment since these judgments contribute to the certification process in examinations (MoEAC, 2015). The DNEA's CA Monitoring and Verification Committee further states that statistical moderation provides feedback to the school and teacher on the strengths and weaknesses of their candidates and on how to improve the professional development of teachers. Therefore, it focuses mainly on quality control.

The following example demonstrates the adjustment instituted on learners' CA mark to ensure comparability between CA marks and national examination marks, thereby ensuring that the CA marks conform to the national standard.

Based on the CA marks received from Grade 10 centres (schools) and national examination marks, the average marks from CA and national examination are computed

and adjustments are done on the learners' CA marks to bring it in line with national examination average marks (MoE, 2010). Furthermore, if a learner had a CA mark, for example, of 43 out of 70 and an examination mark of 44 out of 130, it means that the learner had 61.4% [(43÷70) x 100] for the 'CA mark' and 33.8% [(44÷130) x 100] for the 'examination mark'; meaning that the learner got a CA mark nearly twice as high as the mark achieved in the national examination. For this reason, the CA marks are adjusted *downwards* for the specific school for each learner.

The opposite is also true where the 'CA average' is much lower than the 'examination average', where the learner's CA mark will then be adjusted *upwards* (MoE, 2012).

In a nutshell, if the quality of CA activities is monitored well through the schooling process, the learners' performance in the examination should not be a surprise. In other words, the CA mark should fairly correlate with the final examination mark.

2.2.5 Promotion

In the Namibian context, the candidate's promotional mark in Grade 10 is drawn from two types of assessments. These are CA which contributes 35%, and the final national examination assessment which contributes the remaining 65%, as mentioned earlier under Section 1.1. Therefore, CA is an aggregate of all the achievements of a learner from the beginning of the year to the end, which determines the final achievement and subsequently the promotion to the next grade (Asabe, 2007).

Therefore, it becomes of cardinal importance, in the researcher's view, that CA marks collected at various schools ought to be valid and reliable in order to reflect the candidates' true mastery of the prescribed objectives and competencies.

2.3 Purpose of Continuous Assessment

In the Namibian context, the purpose of CA is two-fold. Firstly, it provides regular information about teaching and learning and the achievement of learning objectives and competencies, as well as providing the opportunity for the assessment of performance-based activities that cannot be assessed or are difficult to assess in an examination. Secondly, it helps to generate CA marks which contribute to the learners' end-of-year promotional grade (MoE, 1999).

Thus, CA fulfils a formative and summative purpose. Formative CA includes any assessment (formal and informal) made during the school year that is meant to improve teaching-learning. In other words, formative CA is assessment *for* learning which may include, inter alia, homework exercises and tests which, by purpose, are meant to give feedback to teachers and learners regarding how well learners are achieving and progressing in order that improvements could be made where necessary (Stiggins, 2005).

Summative CA, on the other hand, is an assessment *of* learning which is made at the end of the school year based on the accumulation of progress and achievements of the learner throughout the year in a given subject. The result of this assessment, in the Namibian context, is made up of both the formal continuous assessments and the end-of-year examination combined according to pre-specified percentages as indicated in

Chapter 1 (Section 1.1). Eimann (2002) summarises the purpose of formative assessment which includes:

- improvement of teaching methods and learning,
- motivating learners,
- allowing for creativity and enhancing positive self-esteem.

Summative assessment provides information regarding learners' achievement of the learning targets. Sharing similar sentiments, Uiseb (2009) is of the opinion that the main purpose of CA is to attain a reliable picture of the learners' progress as far as achievement of the basic competencies which are set out in the syllabus is concerned. This should be done as early as possible to take appropriate corrective measures, thereby making CA a valuable tool to diminish failure rate among learners. In the same light, Nitko (quoted by Mikre, 2010) has underscored the purpose of CA by stating that it promotes regular interactions between learners and teachers, thereby assisting teachers to take cognisance of learners' strengths and weaknesses that require remediation.

Kuze and Shumba (2011) have indicated that all assessments are created to serve some purpose, such as to diagnose learning disability or to determine whether a school has met its achievement goals through high-stake tests and examinations. Through such assessments (tests and examinations), teachers might learn which learners in their classes have failed, but they do not provide details of what the learners need in order to master the outcomes or what errors in thinking led to the incorrect answers in the tests or examinations.

In order to get that kind of information, Kuze and Shumba (2011) suggest that teachers need the results provided by the consistent use of classroom-based formative assessment in order to realise the full potential of CA.

In a nutshell, the purpose of CA is mainly to monitor learners' progress and achievement of the learning objectives and competencies and to provide the much needed feedback to rectify and remediate the shortfalls regarding the teaching and learning process. It further contributes to the summative mark which underpins a learner's promotion to the next grade.

Additionally, Farrant (as cited in Mwebaza, 2010) argues that CA is used as a strategy to prepare learners for final examinations. According to Mwebaza (2010), this is due to the fact that CA results are used to identify strengths and weaknesses so that teachers can provide appropriate remedies. CA outcomes in Grade 10 Mathematics in Namibia form an integral part of learners' summative grade and, as such, it should account for the total growth of the learners in all assessment domains through various CA components. Yoloye (quoted in Ahukanna, Onu & Ukah, 2012) summarises the purpose of CA as follows:

a) To obtain a true reflection of the learner's ability than would be obtained from a single assessment (e.g., end of year examination);
b) To diagnose the strength and weakness of the individual learner and apply corrective measures when lack of progress is observed;
c) To provide a continuous record of the learner's physical, social and personal qualities;

d) To encourage teachers to implement the intended instruction objectives and;
e) To serve as a monitoring device giving feedback to the learner about the effectiveness of his or her learning.

In contrast, CA in the Namibian context serves to provide information about teaching and learning and the achievement of learning objectives and competencies; it allows for assessment of performance-based activities which may be impossible to assess in the examination and, most importantly, it is used to generate CA marks for summative grading (MoE, 1999).

2.4 Different types of Continuous Assessment

Continuous Assessment at Grade 10 Mathematics level consists of formal and informal assessments. The informal assessment entails continuous assessments which are less structured. This form of assessment uses methods such as oral questioning, observation and interviews, which do not directly contribute to the CA mark. It provides the teacher and learners with feedback on the effectiveness of the teaching and learning process. Moreover, the Grade 10 Mathematics syllabus specifies how many formal assessments are required for each type of CA from which learners' CA marks should be derived (see Table 2.1). A transitory description of each type of formal CA follows:

a) Investigations assess learners' ability to think and reason independently and to reflect critically on their own thinking. In this phase investigations into number patterns and their application to everyday problems and generalisations are appropriate (MoE, 2010, p.26).

b) Projects are longer assignments than topic tasks and give learners an opportunity to complete an investigation into one of the theme topics outlined in the syllabus. This type of investigation will enable the learner to pursue a topic in greater depth and in more lively and creative ways than possible with short discrete topic tasks or investigations. Projects assess the ability to solve problems and apply mathematical processes to everyday life, and the ability to present the problem, the process and the findings according to certain standards. One compulsory project per year must address cross-curricular HIV and AIDS, population or environmental issues. The information contained in the Population Census 2001 and in the Namibian Atlas can form a basis for these projects (MoE, 2010, p.26).

c) Topic Tasks are activities that most teachers already use in their day to day teaching. These are recorded and assessed activities that could introduce a topic or be used during teaching a topic or revision of a topic. They may well include assessment on competencies like locating information, conducting surveys, analysing information or presenting information (MoE, 2010, p.27).

d) Written Tests of the length of one classroom period are specifically set by the teacher to assess the learners' achievement in relation to content and competencies specified in the syllabus and should consist of short questions as well as more structured questions (MoE, 2010, p.27).

e) End of Term Tests are comprehensive tests of the whole term's work. No homework should be assigned during the time of writing the end of term tests (MoE, 2010, p.27).

It is expected of Grade 10 teachers to compile valid and reliable structured formal assessment in order to provide CA marks for learners by combining marks from topic tasks, tests, investigations and projects, which contribute 35% towards the learners' final promotional mark that appears on their Junior Secondary School Certificate at the end of the Grade 10 academic year (MoE, 2010). As stated earlier, the Assessment Policy defines valid CA as an assessment that a teacher can defend as good to use to evaluate each learner's mastery of the objectives and competencies specified in the syllabus that he/she actually studied (MoE, 1999).

According to the assessment policy, valid assessment is arrived at when one assumes the responsibility of aligning every CA with the objectives and basic competencies that the syllabus expects all learners to attain during the school term or year. In the same vein, the assessment policy defines reliable CA as an assessment that is consistent in such a way that if more than one teacher marked a set of essays, the essays would receive similar (consistent) marks from all markers (teachers) involved. However, since all Grade 10 candidates take the same national examinations which are set, regulated and administered in accordance with DNEA's set conditions, the differences observed in Tables 1.1 and 1.2 between national CA mean scores and national examination mean scores may suggest some variations in the quality of CA carried out in some schools (Marongwe, 2012).

2.5 Characteristics of Continuous Assessment

In the prior sections of this chapter, CA was discussed in terms of its types and purposes, among other aspects. This section focuses on the characteristics of CA.

2.5.1 Systematic

The Namibian Grade 10 Mathematics syllabus directs that CA should be operationally planned and programmed at the onset of the academic year and should be kept as self-effacing as possible (MoE, 2010). This entails that CA should be planned to suit the level and experience of the learners, given at appropriate time intervals during the school year and clearly indicating the purpose of the assessment (it should clearly indicate whether assessment is *for* learning or *of* learning) and the type of CA to be used (for example, test, assignment or project) for the measurement, thereby becoming systematic (Asabe, 2007). Assessment for learning consists of the assessments conducted in the classroom, both formally and informally, to give feedback and grades to students about their learning; this feedback and these grades do not contribute towards the final grade. In contrast, assessment of learning aims to provide evidence of achievement of learning outcomes for reporting and decision-making (Boraie, 2012).

2.5.2 Comprehensive

Another feature of CA is its comprehensiveness, which is achieved through the utilisation of various assessment components, which are, among others: tests, projects, assignments and observations.

These do not only measure outcomes of the instruction in terms of achievements, but also measure aspects of the affective and psychomotor domains (Nwaogazie, 2009).

2.5.3 Cumulative

Another characteristic of CA is cumulativeness, which occurs when the learners' results of CA are systematically recorded and/or taken into account to determine their grade at the end of the academic period (Asabe, 2007). This implies that the final grade of a learner at the end of the year must integrate all assessment scores from all assessment components he/she has completed.

2.5.4 Guidance-oriented

Furthermore, CA is said to be guidance-oriented. Asabe (2007), states that guidance-oriented CA stresses those areas of learners' strengths and weaknesses that should be communicated to the learners to enable them to make improvements or adjustments. Asabe emphasises that information gotten from planned and regular administration of the variety of tests in a CA practice can be very helpful in guiding the learners in the right path of learning in all assessment domain areas. Aliyu and Ngadda (2000) in the same light note that periodic assessments are very effective measures of learning achievements. Conceptually as well as in practice, CA provides feedback to learners and teachers. Such feedback avails information which is used for purposes of improving on the learner's performance, context and methods of teaching (Alemu, 2013).

In a nutshell, assessment is said to be continuous when it is regular, cumulative and comprehensive. It uses different instruments in the process of learner assessment in the cognitive, affective and psychomotor domains, in which the assessed content requires basic knowledge, technical analysis and presentation skills, respectively.

2.6 Teachers' roles in Continuous Assessment implementation

Continuous Assessment is a process rather than a once-off activity. As such, it becomes one of the instructional functions that place greater and important responsibility on the teachers; they must have more ingenuity in expounding teaching and learning objectives, have greater impartiality in assessing and greater care and diligence in record keeping (Uiseb, 2009).

In the Namibian context, the teacher's role in CA implementation can be divided into two categories: the formative role and summative role. According to the Grade 10 Mathematics syllabus, formative CA serves to improve learning and help shape and direct the teaching-learning process. In this process according to Hayford (2007), the teacher takes centre stage in assessing and marking learners' activities to obtain substantial information which he/she uses to improve teaching methods and learning materials. Hayford (2007) notes that the monitoring of learners' progress is one of the basic activities teachers engage in. In the same vein, Pollard et al. (2005) expounds that teachers make use of CA to get evidence of learners' responses and fine-tune the learning programme to meet learners' needs.

Moreover, teacher-learner interactions during classroom instructions and through marking of learners' work provide an opportunity for the teachers to detect learners' curriculum-related shortfalls that need remediation. In the same breath, Hayford (2007) suggests that teachers obtain, through CA, some insights into areas of learners' learning difficulties, and aid them to adopt strategies to contain such difficulties. In this way, teachers perform a diagnostic function. The point here is that teachers monitor the

learners' progress while making adjustments to the instructional methods to maximize learners' achievements. In a nutshell, the teachers' role in CA implementation involves assessing, marking learners' work, monitoring learners' progress and improving teaching methods and teaching materials.

Additionally, the Grade 10 Mathematics syllabus directs that when grades are awarded in CA, it is indispensable that they reflect the learner's actual level of achievement. In this regard, the grading and reporting of learners' CA marks underscore teachers' role in summative CA. According to Njabili (as cited by Byabato & Kisamo, 2014), the teacher takes centre stage in the procedure which involves a systematic collection of marks or grades over a period of time and the consolidation of the marks into a final score which is taken into account in deciding the candidate's final grade. Byabato and Kisamo (2014) state that the teachers' role in CA is of cardinal importance such that it requires meticulous recording of marks over time and processing them into a single mark which contributes to the learner's summative mark to determine his/her promotion to the next grade.

2.7 Variation between CA and National Examination Scores and the Causes

2.7.1 The World Perspective

Studies conducted on the implementation of CA in schools have indicated that the difference between the CA scores and national examination scores has been generally too high particularly in some African countries. Adeyegbe and Andor (as quoted by Addy-Lamptey & Dery, 2006) found that in all schools in Ghana, the mean of CA scores were higher than the mean of external scores; in some instances, scores ranged between

85% - 95%. In Tanzania, Byabato and Kisamo (2014) investigated the implementation of school based CA in Ordinary Secondary Schools. They found that in almost every year during processing of the Ordinary Secondary School examination results, the National Examinations Council of Tanzania (NECTA) has identified an aspect of schools turning in high CA marks of their students which do not correlate at all with their respective final examination subject marks. From the reviewed studies above, it appears that the differences between CA and national examination marks are not only unique to Namibia as observed in Tables 1.1 and 1.2 respectively, but it is happening in other countries as well.

CA plays a significant role in the process of learner assessment as well as in the teaching-learning process. However, there are many factors that constitute a set of challenges that defies the effective implementation of CA. Kapambwe (2010) investigated the implementation of school based CA in Zambia during the termly monitoring visits and found that there were various challenges which negatively influenced the effective implementation of CA, such as: large class size which imposed higher work load; marking and record keeping, staffing and pupil absenteeism, among others. Sharing the same sentiments, Hayford (2007) has observed that larger classes affect the number as well as the variety of items a teacher includes in his/her assessment because the time for marking, processing and filing of records has to be considered.

An investigation carried out on CA by the Curriculum and Research Division (CRDD) in Ghana (as quoted by Addy-Lamptey & Dery, 2006) revealed that teachers' assessment instruments were not generally reliable and assessment was still restricted to the cognitive domain. Addy-Lamptey and Dery (2006) further indicate that significant

differences existed in teachers' scoring of tests and that marking schemes were not used. Also, record keeping by teachers was poor.

Furthermore, their findings revealed that non-adherence of teachers to the guidelines for generating CA scores, as well as unsystematic and erratic scores mainly due to lack of experience in assessment were some of the factors which impacted effective CA implementation. Similarly, Byabato and Kisamo (2014) found that lack of teachers' integrity (favouritism and inflation of marks) and lack of uniformity in both the assessment tools used and procedures for CA recording and reporting were some of the serious problems hampering the proper implementation of school based CA.

The variation between CA scores and national examination scores appears to be attributable to diverse factors, which seem to be common in many countries across the world. These factors are: unreliable assessment instruments which are also said to be narrowed to low cognitive complexity; non-adherence to guidelines for generating CA scores; lack of meticulous record keeping of CA marks; favouritism and inflation of marks by teachers; and lack of uniformity among schools regarding assessment tools, among others.

2.7.2 The Namibian Situation

Continuous Assessment implementation is a challenge in Namibia as it is in Ghana, Tanzania and Zambia. In a study, Mutuku (2009) found that for the majority of Namibian schools, the CA average marks were significantly higher than the examination average marks. In the same vein, Marongwe (2012) affirms that although CA average marks and examination average marks correlate well in some schools, CA average

marks are significantly higher than examination average marks in the majority of schools. Marongwe further states that many Namibian Grade 10 Mathematics teachers are not familiar with the CA components as required by the assessment policy. Thus, they are not fully aware of the formal tasks that they are supposed to prepare and provide to learners in order to generate CA marks.

Record keeping of learners' CA marks is one of the most critical functions that need to be carried out with due diligence because of its significant contribution to the learners' summative grade (MoE, 2010). However, Marongwe (2012) has noted that the CA record form provided by the MoE remains a challenge among Grade 10 Mathematics teachers.

Moreover, Alausa (1999) points out that poor record keeping as well as lack of skills in test construction and administration and attitudes towards the CA approach are some of the challenges that teachers face.

The MoE's Assessment Policy (as cited in Iipinge & Kasanda, 2013) acknowledges that there are predicaments which school teachers are faced with when implementing CA. According to Iipinge and Kasanda (2013), Namibian teachers lack confidence in the implementation of proper assessment methods. Similarly, Alausa (as cited by Marongwe, 2012) acknowledges that Namibian teachers lack skills to set tests that are reliable and valid.

In general, Namibian schools experience big class groups, especially in the densely populated regions and towns. Iipinge and Kasanda (2013) argue that large classes weaken the implementation of CA in schools because effective ongoing CA that could

cater for each learner's learning process is compromised. Having conducted a study in Nigeria, Ihendinihu (2014, p.77) with reference to class size opines that "to operate CA effectively the teacher needs to spend time on each child. Therefore the teacher needs to teach fewer numbers of students per class to enable him or her to teach; assess and provide feedback on the children individually. The implication is that large number of students per class will make it difficult for a teacher to teach and evaluate pupils effectively. Hence, CA takes much of the teacher's time because a good deal of their time is spent in writing, marking and recording results".

In a different study conducted in Namibia, Kruger (2004) found that due to lack of competency and pressure of work, most teachers simply allocated ghost marks instead of recording marks from written activities. Supporting Kruger's finding, Kapambwe (2010) opines that although CA should be well-integrated with teaching and learning process, teachers often feel pressured by time factor to complete the syllabus and hand in CA marks to the authorities. This results into the quality of CA to be compromised.

The above studies show that there are many factors which influence the effective implementation of CA. These include: lack of skills, large class sizes, and teachers' attitude towards CA, poor record keeping, teachers' work load and time factor.

Eimann (2002) perceives that training could add value to the quality of teaching and learning outcomes. Eimann points out that the task of preparing teachers well enough to be able to implement educational innovations with confidence should not be underestimated. Eimann (2002) further states that any plan for CA is only as strong as the teachers' ability to use it appropriately.

In conclusion, the factors which underscore the differences between CA marks and national examination marks in Namibia resemble those that were noted elsewhere, such as in Ghana, Tanzania and Zambia. The trend has been that higher CA marks compared to national examination marks have been submitted from different schools. Many studies by different authors (Addy-Lamptey & Dery, 2006; Byabato & Kisamo, 2014; Kapambwe, 2010; Hayford, 2007, among others), have outlined diverse factors to which the differences between the two sets of marks could be attributed.

These factors include lack of skills in test construction, negative attitudes towards CA; poor record keeping, work load and time factor.

2.8 Context Input Process and Product (CIPP) Model

This study adopted the CIPP model of evaluation developed by Stufflebeam (1983) to guide the study. The model contains four components: context, inputs, process and products.

a) The context component looks at the overview of CA implementation in Grade 10 Mathematics.
b) The input component focuses on the requirements as prescribed in the syllabus and assessment policy.
c) This serves as input into the process that generates CA marks required for learners' promotion at the end of the year.
d) The product looks at the CA marks obtained as results of CA processes undertaken by the teachers. A diagrammatic representation of the CIPP model is given in Figure 2.3.

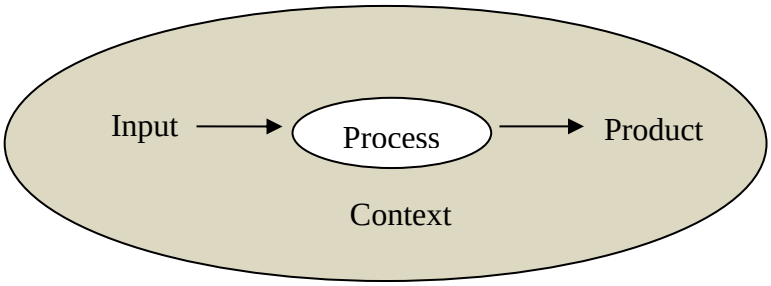


Figure 2.3: Stufflebeam CIPP Model (1983)

Source: www.cglrc.cgiar.org

The Grade 10 Mathematics syllabus (MoE, 2010) outlines basic competencies in which learners are expected to acquire knowledge and skills and demonstrate understanding of such competencies as a result of the teaching-learning process. In order to capture the full range and level of prescribed competencies, a variety of formal CA activities, such as investigations, projects, topic tasks, written tests and end of term tests, are expected to be carried out to give a complete picture of the learners' progress and achievements (MoE, 2010).

This syllabus further prescribes the procedures which teachers need to adhere to when implementing CA, for example, the types and number of CA activities, the time frame within which such activities need to be completed; the marks each activity contributes to the learner's final CA mark and how the records of learners' marks should be kept (see Table 2.1). These syllabus prescriptions direct the teachers to the objectives of CA and, thus, provide a contextual blueprint for CA implementation.

Kapambwe (2010) and Alemu (2013) underscore the importance of continuous teacher-training or skills development as a crucial input in the implementation of CA. Alemu (2013) also emphasises that teachers need skills in test construction in order to measure learners' mastery of the prescribed competencies. In addition, the MoEAC's Assessment Policy and Information Guide also prescribe an assessment plan for selected graded CA to be in place (MoE, 1999). Such plan assists the teacher to keep track of time required to complete the work. It also provides school and regional management, as external school monitors, the opportunity to monitor and assist with CA.

Documents such as the Assessment Policy (MoE, 1999), subject syllabus (MoE, 2010) and relevant reference materials for teachers and learners which are prescribed by the MoE are some of the commonly used input documents for CA implementation in Namibia. The Assessment Policy clarifies ministerial policies to create a better understanding of what CA entails and to provide examples of good practice to help teachers design and implement CA. The subject syllabus outlines the intended learning objectives and competencies on which the learners are assessed. It also spells out the forms of CA, the methods for CA, the grades to be awarded in CA and the recording of CA marks.

The continuous assessment process involves assessment of learners to collect information which reflects learners' true achievements through valid assessment. Valid assessment means that the assessment results can be defended as good to use to evaluate each learner's mastery of the objectives and competencies from the syllabus that the learners have actually learned.

Alausa (1999) is of the view that to yield the intended results for CA implementation, teachers need to frequently assess their learners, even though this means more marking and recording for teachers. Teachers need to meticulously keep record of learners' marks to avoid the tendency of manufacturing scores in the name of CA.

In summary, the CIPP model provides this study with a structure (input, process and product) that serves as a framework to explore the implementation of CA in Grade 10 Mathematics in Oshikoto Region.

2.9 Conclusion

The studies reviewed in this chapter investigated various issues regarding CA implementation in different schools at different grade levels. The studies have shown that the implementation of CA is characterised by various defiant factors which include, inter alia, inadequate training among teachers, non-adherence of teachers to the guidelines for generating CA scores and negative attitudes towards CA. Consistent also in these studies is that the correlation between CA scores and external examination scores is a problem in various countries, and Namibia is not an exception.

However, a small number of studies (Eimann, 2002; Hamukonda, 2007; Kruger, 2004) conducted in Namibia have concentrated on Primary Level (Grades 5-7), while those conducted at Junior Secondary Level (Marongwe, 2012) have not adequately interrogated what teachers are precisely doing in order to generate the CA as directed in the national documents, for example, assessment policy and subject syllabus. These national documents guide the implementation of CA activities which lead to the generation of CA marks.

Furthermore, the perused studies conducted in Namibia have not explicitly indicated what exactly the teachers are doing wrong as far as the CA implementation process is concerned. The activities and manner in which teachers implement CA might be the possible cause of disparities between CA and national examination marks observed in Tables 1.1 and 1.2, hence the need for this study.

The next chapter discusses the research methodology used in this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methodology of the study. It highlights the research design, the population from which the sample was drawn, the sample and sampling procedure; the instruments used, data collection procedure and data analysis procedure. The chapter concludes with ethical considerations.

3.2 Research Design

The study employed the sequential explanatory mixed-methods research design. The sequential explanatory design is characterised by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data. This design gives priority to the quantitative data, and the two methods are integrated during the interpretation phase of the study (Creswell, Plano Clark, Gutmann, & Hanson, 2007). Figure 3.1 illustrates the design:

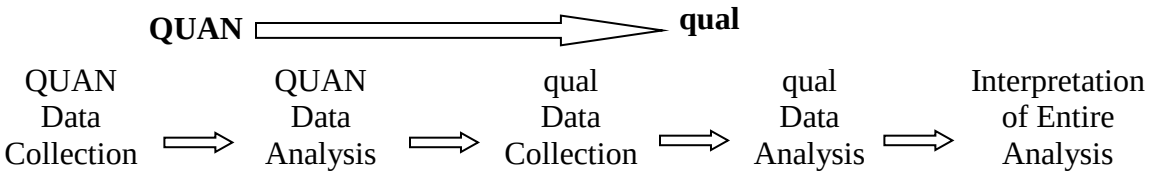


Figure 3.1: Sequential Explanatory Mixed Methods Design

Source: The Mixed Methods Reader, p.180

The quantitative phase was carried out first to enable the researcher to generate data regarding the extent to which the participants were complying with the national CA

norms as prescribed in the national CA Policy and the Grade 10 Mathematics Syllabus. In turn, such data led to the selection of participants for the qualitative phase in order to deeply engage the participants on the implementation of CA. The use of the mixed-methods design expands the research in a way that a single approach cannot. The process of offering a statistical analysis, along with observation, makes the research more comprehensive (Gay, Mills & Airasian, 2009).

As stated earlier, the first (quantitative) phase of the study focused on teachers' level of compliance to the national CA norms or provisions to find out the extent to which CA was being implemented as prescribed in the subject syllabus, while the second (qualitative) phase consisted of interviews with selected teachers to get an in-depth understanding of how the CA process was being undertaken in different school settings. The rationale for using mixed methods to study this phenomenon was that quantitative analysis addressed the activities which show compliance or non-compliance of teachers to the national CA norms. Furthermore, to get a better understanding of the processes by which teachers perceive and implement CA in their respective schools, a qualitative analysis approach was used to gain additional insight into the CA implementation in Grade 10 Mathematics. In a nutshell, the goal was to explore the phenomenon both quantitatively and qualitatively to gain a deeper insight into the issue, while ensuring that the meta-inferences were valid and well justified (Creswell et al., 2007).

3.3 Population

The research participants were drawn from a population of Grade 10 Mathematics teachers in the Oshikoto Education Region. The researcher selected Oshikoto Education

Region for two reasons: firstly to easily access and locate the schools as the researcher is more familiar with the region. Secondly, the region has the majority of the schools in which the MoE has reported high disparities between CA and national examination marks over several years (MoE, 2010, 2011, 2012, 2013, 2014).

3.4 Sample and Sampling Procedures

Gay et al. (2009) define a sample as a group of individuals, items, or events that represents the characteristics of the larger group from which the sample is drawn through a process known as sampling.

3.4.1 Quantitative Phase

For the quantitative strand, a total of ten (10) schools offering Grade 10 Mathematics in Oshikoto Education Region were selected purposely using the convenient sampling technique. Purposive sampling is a sampling system where the research uses his or her judgment to select the units (people or organisations) that are to be studied (Gay et al., 2009). The researcher conveniently chose the ten schools since he was well acquainted with those schools in the region. Also, the selected schools were easily accessible and required minimal resources (time and transport costs) to reach the respondents. Many schools in Oshikoto Education Region rarely have more than one Grade 10 Mathematics teacher; hence a total of ten (10) Mathematics teachers (one teacher per school) participated in the study in this phase.

3.4.2 Qualitative Phase

The participants for the qualitative strand were selected from those who had completed the questionnaire during the quantitative phase. Creswell and Plano Clark (2011) argue that because the purpose of a follow-up qualitative strand is to gain a deeper insight into the quantitative results, the same respondents should participate in both study stands. Selecting new participants may result in divergent views and cause inconsistencies in the inferences derived from the analysis of the quantitative and qualitative data (Teddlie & Tashakkori, 2009). Therefore, a total of five (5) Mathematics teachers from the ten selected schools were purposively sampled using the homogeneous sampling technique. According to Patton (2002) homogeneous sampling is a technique that aims to achieve a sample whose units (for example, people, cases and so forth) share the same characteristics such as professional qualifications, teaching experiences and grade level taught. Therefore, the five teachers were selected based on the following criteria:

a) a teacher who holds a three-year qualification or better,
b) a minimum of three years teaching experience in Mathematics, and
c) Teaching Grade 10 Mathematics at the same school for the past three years.

Given the nature of this study, an information-rich sample meeting the set criteria was necessary to understand the practices underpinning the CA implementation. Thus, the researcher deemed this sampling technique appropriate to draw the needed respondents.

3.5 Research Instruments

For the quantitative phase, the study employed a self-administered questionnaire (Appendix A) for key participants. The questionnaire had two sections, i.e., participants' general information and CA planning and implementation. The questionnaire items were developed based on the CA implementation requirements stipulated in the national documents (CA Policy and Syllabus).

The qualitative phase had two data collection instruments, i.e., an interview guide (Appendix B) for one-on-one semi-structured interviews and a document analysis sheet (Appendix C) for document analysis. The interview guide had ten main questions and, in where necessary, follow-up questions were asked. The document analysis sheet was in the form of a checklist with 'YES' and 'NO' headings.

The diverse methods of data collection under the quantitative and qualitative strands were used to enhance validity and reliability of the study by means of triangulation. Gay et al. (2009) define triangulation as the process of using various methods, data collection strategies and data sources to obtain a more complete picture of what is being studied and to cross-check information.

3.6 Data Collection Procedures

The data for this research study were collected in two phases: for the first research tier (quantitative phase), the researcher hand-delivered the questionnaire to the Grade 10 Mathematics teachers at ten selected schools. The teachers immediately completed and handed back the questionnaires to the researcher. The questionnaires had two sections.

Section A included general information, which led to formation of the teachers' profiles. Section B consisted of questions related to CA planning and implementation. The researcher studied the completed questionnaires to establish the teachers' profiles, which informed the selection of the participants for the second phase.

The collection of qualitative data was two-fold: firstly, the researcher conducted one-on-one semi-structured interviews with five teachers to elicit information about perceptions, understanding and attitudes that yielded descriptive data. The researcher audio-recorded and later transcribed one-on-one semi-structured interviews verbatim. The second leg of qualitative data collection consisted of document analysis, whereby the researcher requested learners' test books, homework/exercise books, projects, CA mark sheets and question papers, among others, for perusal. During the document analysis, the researcher concentrated on the following aspects:

a) the availability of the CA Policy and subject syllabus;
b) the availability of a CA plan and adherence to it;
c) whether or not CA activities were regularly given and marked;
d) whether or not the CA instruments were based on the prescribed competencies (validity);
e) whether or not the CA assessment instruments struck a balance between various cognitive levels;
f) whether or not moderation of CA activities was done;
g) the accuracy of CA record keeping;
h) whether or not the recommended CA record system and amount of CA tasks were adhered to;

i) the reliability of marks awarded and recorded for CA (this was established through remarking of same test papers by teachers at the same grade level from various schools).

3.7 Data Analysis Procedure

According to Brink (2007), data analysis refers to "collation, classifying and manipulating; summarising and elucidating collected data." Johnson and Christensen (2004) recommend that researchers following a mixed methods research design can use a range of quantitative and qualitative data analysis procedures. However, the choice of analysis procedure should be driven by the research objective(s), research purpose, research questions and type of data collected.

In this study, the data analysis was done in accordance with the research purpose and type of data collected. Creswell (as quoted in Marongwe, 2012) indicates that it is not enough simply to collect and analyse quantitative and qualitative data; they need to be 'mixed' in some way so that together they form a more complete picture of the problem than they do when standing alone. Therefore, the researcher analysed quantitative and qualitative data. Firstly, to quantitatively assess the extent to which the implementation of CA complied with the national CA norms and secondly; to qualitatively gain additional insight into the process and practices undertaken to implement CA, respectively.

3.7.1 Analysis of Quantitative Data

The data collected from questionnaires (survey data) were computerised and analysed using descriptive statistics and presented in tables, pie charts and bar graphs using the Statistical Package for Social Sciences (SPSS) version 22. The researcher further analysed the presented data in relation to the contextual provisions of the national assessment policy document as well as the Grade 10 Mathematics syllabus, which guide and direct the implementation of CA and to which teachers are required to adhere.

3.7.2 Analysis of Qualitative Data

The data collected from one-on-one semi-structured interviews (Annexure B) were transcribed verbatim. The researcher analysed individual teachers' responses on each question and follow-up question and then narrated and summarised their experiences, views and perceptions. The researcher further read and reviewed the summaries and identified patterns within the data, which led to emerging themes.

The emerging themes were further refined and perfected. Furthermore, the researcher analysed the data from documents based on the created document analysis template and recorded the findings in a narrative form.

3.8 Validity and Reliability

Various researchers and scholars around the world have widely debated and deliberated on the concepts of validity and reliability. The discussions evolve around what validity and reliability are, from different research paradigms. In layman's terms, validity refers

to whether the research truly measures that which it was intended to measure or how truthful the research results are (Joppe, 2000). Reliability refers to the extent to which results are consistent over time and are an accurate representation of the total population under study (Joppe, 2000).

According to Patton (2002), a researcher can validate and cross check findings by using numerous sources of information. Sharing the same sentiment, Golafshani (2003) is of the view that engaging multiple methods, such as observation, interviews and recordings will lead to more valid, reliable and diverse construction of realities. Tapping on the foregoing views of Patton (2002) and Golafshani (2003), this researcher engaged multiple sources such as semi-structured interviews and document analyses to fortify the validity and reliability of the study by using the following strategies: (a) audio recording - to ensure that the researcher had the opportunity to repeatedly listen to the recording to safeguard accuracy of the transcribed raw data, (b) triangulation - using multiple methods of data collection such as semi-structured interviews and document analysis to compare and cross-check data for consistency and to eliminate the inherent biases associated with using only one method (Crump & Logan, 2008).

3.9 Ethical Considerations

In carrying out this study, the researcher requested and obtained permission from relevant authorities (Ministry of Education Permanent Secretary and Director of Education, UNAM) to access the research participants in the selected schools (see Appendices J, K, L). The researcher also obtained consent from all concerned participants to participate in the study and ensured confidentiality by using codes as a

way of concealing names of schools and all participants (see Appendix M). The researcher informed all participants of their right to withdraw from the study at any stage unconditionally. In this thesis, various authors have been cited and acknowledged accordingly.

3.10 Conclusion

This chapter discussed the methodology applied in pursuing this study. The study adopted a mixed-methods approach, and employed a sequential explanatory research design. A sample of ten teachers participated in the quantitative research, while five teachers drawn from the sample participated in the qualitative research. The researcher used a questionnaire, one-on-one semi-structured interviews and document analysis as data collection instruments. Chapter 4 presents and analyses the quantitative and qualitative data.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the data and an analysis of the research findings. The chapter has two main sections. Section A consists of the presentation and analysis of quantitative data obtained from the questionnaire, while Section B presents and analyses qualitative data obtained from one-on-one semi-structured interviews and document analysis. Section B is sub-divided into two parts. Part A presents the data obtained from teachers' interviews and the themes which emerged from the analysis. Part B presents data retrieved from document analysis.

4.2 Section A: Quantitative Data

This section presents the quantitative data from teachers' questionnaires. It also presents the analysis of teachers' profiles as well as information regarding Continuous Assessment (CA) and its implementation in Grade 10 Mathematics in Oshikoto Education Region.

4.2.1 Teachers' Profiles

In order to ensure better understanding of the data analysis context, the respondents' profiles are provided in Table 4.1. A total of ten Grade 10 Mathematics teachers (five male and five female) took part in the study, with more or less equivalent qualifications such as the Basic Education Teacher's Diploma (BETD), Degree in Education and teaching experience. On average, the respondents' class size was about 47 learners.

Table 4.1: Teachers' Profiles (in counts)

Gender	Teaching Qualification		Teaching Experience		
	Diploma	Degree	0-3 yrs.	3-6 yrs.	Over 6 yrs.
Male	2	3	1	2	2
Female	3	2	2	0	3
Total	**5**	**5**	**3**	**2**	**5**

4.2.2 Continuous Assessment and Implementation

One of the research questions was to find out the extent to which Grade 10 Mathematics teachers align Continuous Assessment (CA) to the national assessment norms. In this regard the National Assessment Policy, the Subject Policy, as well as the Subject Syllabus prescribe some requirements regarding the conducting of CA in Grade 10 Mathematics. These include, among others:

a) The development of an operational CA plan,

b) The use of formal and informal CA and

c) The assessment of learners on a regular basis using different types of CA.

In relation to these requirements, the results showed that all (100%) of the respondents had the prescribed Grade 10 Mathematics Syllabus. The syllabus prescribes the competencies which learners ought to master through classroom instruction. However, the researcher's analysis of this finding revealed that although all participants had the correct prescribed syllabus, the evidence seemed to indicate that some of the participants might not have always consulted the syllabus, particularly with reference to assessment of certain competencies (Figures 4.4 and 4.5 under Subsection 4.3.3). In this case, the syllabus made a clear prescription that the competency which was assessed in Question

1(iii) (Figure 4.5) should have been assessed on learners pursuing Additional Mathematics (Extended) instead of those pursuing Mathematics (Core).

Furthermore, 70% of the respondents retorted that they had not developed a CA Plan as directed in the syllabus and had no idea what the plan entails. This finding suggests that there existed some difficulties among participants regarding the interpretation and implementation of some provisions of the syllabus, which might therefore impact the effective implementation of CA. Although 30% indicated that they had a CA Plan in place, none of them could provide it as evidence when requested to do so.

Similarly, 70% of the respondents did not have the National CA Policy and Information Guide document and indicated that they had never seen it. This finding shows that although the intention of the policy was to create a better understanding of what CA entails among teachers for effective design and implementation of CA, this policy intervention might not achieve its purpose as it is not available among the users and/or is not known at all. Nevertheless, 30% of the respondents indicated that they were in possession of the Assessment Policy, but only 10% could provide it upon request. These results are presented in Table 4.2.

Table 4.2: Teachers' Responses on Possession of CA Documents

Teacher's Response	**CA Policy**		**Mathematics Syllabus**		**CA Plan**	
	Counts	Percentage	Counts	Percentage	Counts	Percentage
Yes	3	30%	10	100%	3	30%
No	7	70%	0	0%	7	70%
Total	**10**	**100%**	**10**	**100%**	**10**	**100%**

Furthermore, CA Policy stipulates that CA is important because of its provision of regular information about teaching, learning, and the achievement of learning objectives and competencies through formal and informal assessments. This calls for regular and on-going assessment of learners in order to ensure regular provision of information on how learners are achieving the basic competencies and learning objectives.

On the regularity of learner assessment in a school term, the results show that 20% of the respondents administered CA once a week, 10% assessed their learners once in two weeks, while 70% indicated that they assessed their learners every day. Although the results indicate that participants carried out assessments, it might raise a concern that the frequency at which the participants assessed their learners, particularly 'once per week' and 'once in two weeks', might hamper the effective evaluation of learners' mastery of required competencies. The Assessment Policy defines 'evaluation of learners' as a "process of making a judgement about the quality of a learner's performance using the information gathered during an assessment" (MoE, 1999, p.2). These results emanated from Appendix A, Question B3 and are presented in Table 4.3.

Table 4.3: Administration of Continuous Assessment in a School Term

Ass. Occurrence	Counts	Percentage	Valid Percentage	Cum. Percentage
Once a week	2	20%	20%	20
Once in two weeks	1	10%	10%	30
Every day	7	70%	70%	100
Total	**10**	**100**%	**100**%	

Ass. = Assessment; Cum. = Cumulative

CA is characterised by formal and informal assessment. Formal assessment produces numerical data from assessment activities or exercises that assess specific competencies in the syllabus, while informal assessment supports teaching and learning process by providing information at opportune moments. On the use of formal and informal assessment, results show that 50% of the respondents used formal CA only, while other 50% of the respondents indicated that they used both formal and informal CA methods when assessing their learners.

In respect of these findings, the Assessment Policy prescribes that informal assessments should be used as well, because they gather information about learning during classroom activities using a variety of techniques which include the following, among others:

a) questioning a learner;
b) observing a learner's work;
c) reviewing a learner's homework;
d) talking with a learner and listening to a learner during a recitation.

The Assessment Policy, in respect of formal assessment, directs that Grade 10 teachers are expected to compile and use valid and reliable CA of different type. These include Investigations, Projects, Topic Tasks and Topic Tests. In this respect, 30% of the respondents indicated that they only used Topic Tasks and Topic Tests. This implies that learners are not exposed to Projects and Practical Investigations through which learners' traits in the affective and psychomotor domains could be assessed as described in Chapter 2 (Subsection 2.2.2). However, 70% of the respondents indicated that they used all types of CA activities.

The National CA Policy refers to selected graded CA that is described as a sample of recorded assessment that contributes to the summative CA promotion grade of each learner. The syllabus on the other hand, has made a provision in terms of quantity and marks each CA component should contribute to the learner's summative grade as shown in Table 2.1.

Nonetheless, the Assessment Policy (MoE, 1999) and the Grade 10 Mathematics Syllabus (MoE, 2010) do not provide any guidelines as to which ones, among the recorded CA, should be selected to contribute to the learner's summative grade because teachers may grade and record several CA activities.

Only a few of these could be considered then as it is prescribed in the syllabus. Therefore, the researcher sought to find out how the participating teachers determine which CA activity's scores were to be recorded as part of the learner's summative grade.

The study revealed that 40% of the respondents pre-determined the activities from which they would record the marks to contribute towards the learners' summative grade, irrespective of the score (high or low) that a learner obtained in an assessment activity. Another 40% of respondents indicated that they used other methods; for example, they harvested (gathered) more marks from various CA activities, such as Topic Tests, and then worked out an average, which they then recorded as a single CA mark rather than recording marks from only one short assessment activity.

Furthermore, 10% of respondents retorted that they recorded many CA marks from various assessment activities and then chose at random out of the recorded ones. Similarly, 10% of participants responded by saying that out of many recorded CA

activity scores, they picked an assessment activity in which all learners would have scored the highest mark to contribute to a learner's summative grade. These results emanated from Appendix A, Question B6 and are presented in Figure 4.1.

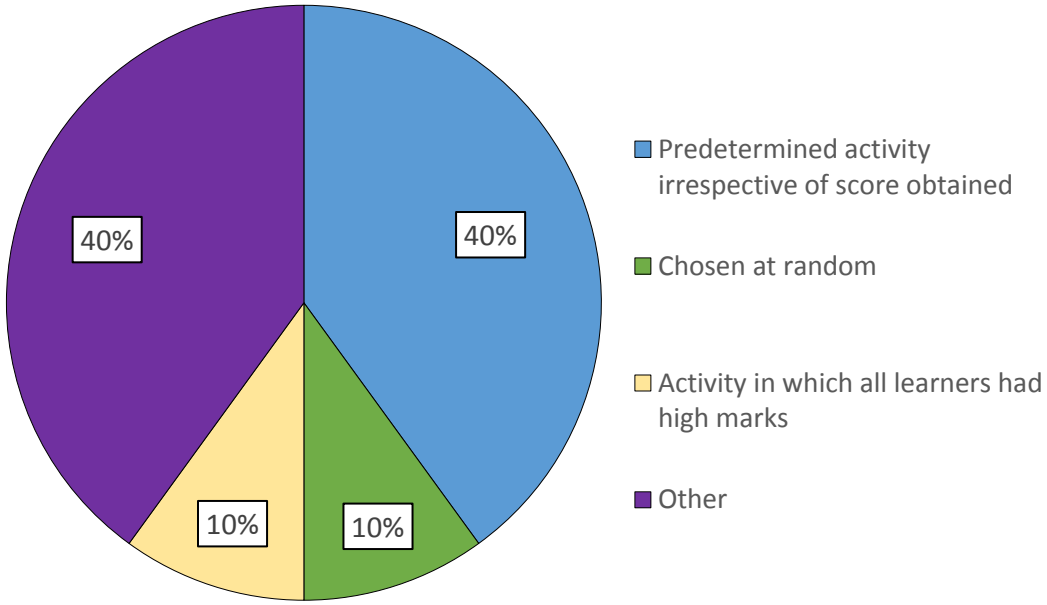


Figure 4.1: Determinant Factors for Selection of CA Summative Marks

The CA Policy (MoE, 1999, p.8-9) states that "in Grades 5-10 the summative assessment is made up of both the sum of six selected graded continuous assessments and the end-of-year examination combined according to pre-specified percentages per subject". It further states that "the selected graded assessment should be planned and selected at the beginning of the school year". Based on the context of above results and the aforesaid provisions of the CA Policy, the researcher's analysis takes the view that the participants implemented CA differently due to the fact that they might not have had the knowledge and/or understanding of the above-mentioned provisions, probably as a result of them not being in possession of the CA Policy.

The Assessment Policy (MoE, 1999) also makes reference to assessment validity and reliability. It states that marks from an assessment are valid if the questions asked match the objectives and competencies in the syllabus. In addition, the Subject Policy (MoE, 2009) prescribes the guidelines on marking and moderation system that aims at authenticating the quality of tests set by teachers and reliability of marks which teachers award to learners. In this regard, teachers were asked to indicate who moderated their CA instruments before learners carried out the assessment activity to ensure the validity of assessment instruments.

Seventy percent (70%) of the respondents indicated that the Head of Department (HoD) moderated their assessment instruments, 10% said that the School Principal did the moderation, another 10% said they asked their colleagues, i.e., other Mathematics teachers, to do the moderation, while the remaining 10% indicated that their assessment instruments were not moderated by anyone. These results emanated from Appendix A, Question 7 and are presented Figure 4.2.

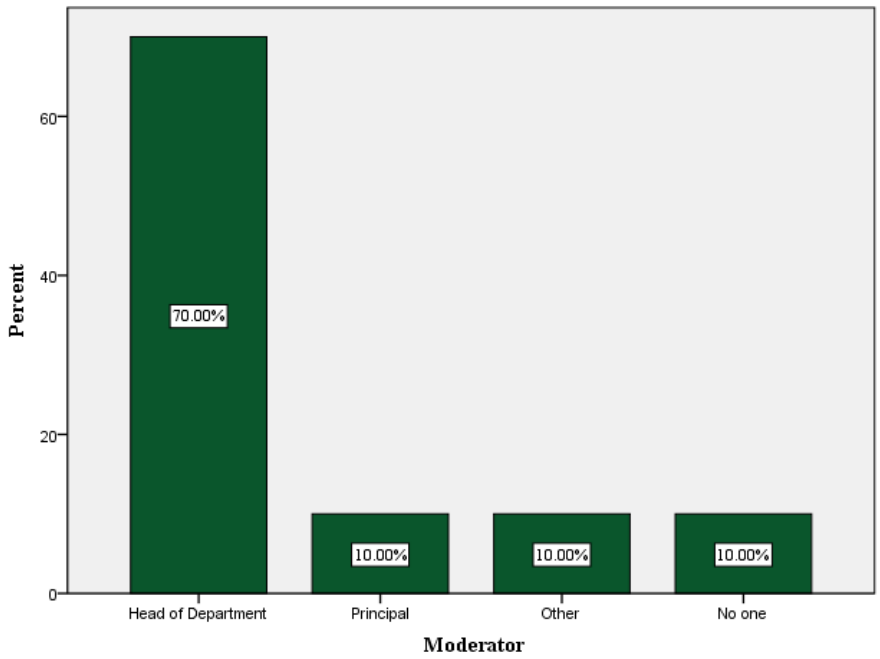


Figure 4.2: Continuous Assessment Instrument Moderators

Although the majority of participants indicated that their instruments were moderated as required by the Subject Policy, the researcher's analysis of some Topic Tests instruments [see Appendices $F_{1,}$ Question 1(a)(iii) and $F_{2,}$ Question 2(a)(iii)] revealed evidence which seems to suggest the opposing view; some participants did not implement the 'moderation' system as a mechanism of ensuring the quality and validity of assessment instruments. The instruments consisted of questions based on competency prescribed for a higher level (Additional Mathematics) instead of the intended level (Mathematics).

On a question of how often the CA scores were monitored, 40% of the respondents indicated that their CA marks were always monitored; another 40% indicated that their CA marks were monitored very often, while 20% said the monitoring of CA marks was done occasionally. The occasional monitoring of marks could be understood to suggest

that some learners might end up receiving undeserved marks, particularly in incidence of 'manipulation of marks' as indicated by Teacher T06 on page 107. These results emanated from Appendix A, Question B8. The results are presented in Figure 4.3.

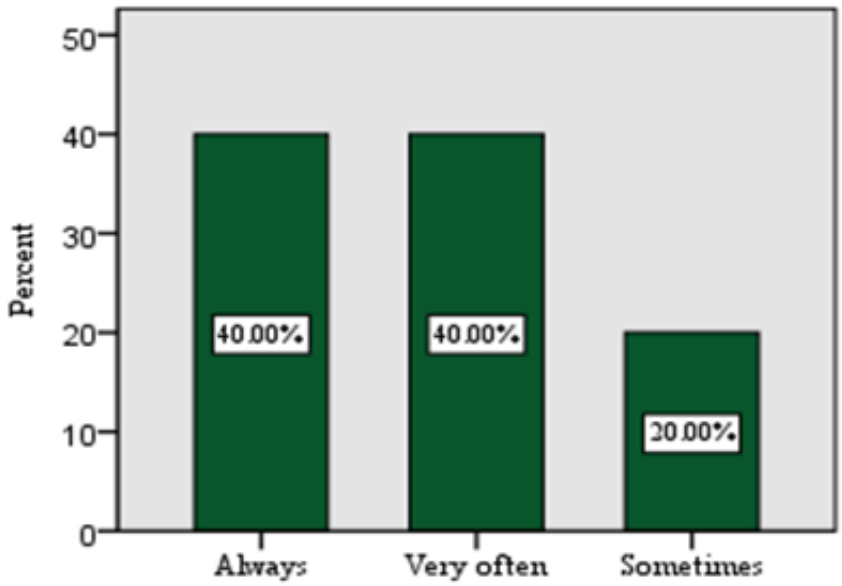


Figure 4.3: Frequency of Continuous Assessment Monitoring

4.3 Section B: Qualitative Data

This section presents and analyses the qualitative data. The data were obtained from one-on-one semi-structured interviews and document analysis. As indicated in Chapter 3, the researcher interviewed five Grade 10 Mathematics teachers and analysed their documents, such as test question papers, learners' homework books, CA record sheets, among others. The interviews aimed to obtain teachers' insights, perceptions and experiences regarding CA as implementers.

The document analysis was intended to ascertain whether or not the Grade 10 Mathematics teachers complied with the national assessment regulations and norms in accordance with the Subject Syllabus and National Assessment Policy documents.

4.3.1 Part A: One-on-one Interviews

This section focuses on teachers' responses obtained from the one-on-one semi-structured interviews. The interviews consisted of ten questions. The researcher recorded and transcribed the interviewees' responses verbatim (unedited). The responses are presented below on the basis of individual teachers' responses to each question in order to identify emerging themes. The following name conventions: T01 to T10 were used to represent the teachers' names in order to conceal their identities. However, only teachers T02, T03, T05, T06 and T07 participated in the interviews.

4.3.1.1 Teachers' understanding of CA

Question 1: Can you briefly explain to me what you understand by Continuous Assessment?

Table 4.4: Verbatim Responses on Understanding of CA

Teacher	Response
T02:	*... I think CA is just like you assessing learners on their works according to the syllabi itself. You assess them continuously like day by day. Like in Mathematics, you assess them either formally or informal either you record or did not record that is what I understand by Continuous Assessment.*
T03:	*... when it comes to Continuous Assessment, I understand it as a way of assessing learners to see how they are progressing and also to see where they are; to find out where they are when it comes to what they have acquired from … and also to record some like in that continue we have to give some test to them to give some topic task just to assess their understanding how do they understand Mathematics in terms of Mathematics now.*

T05:	*... Continuous Assessment is the way of monitoring learners' progress throughout the year to check if they met all the basic competencies.*
T06:	*... Continuous Assessment is the assessing of the learners' work throughout the endeavour to the complete of the course ...*
T07:	*... I think Continuous Assessment that is the assessment that a teacher has to carry out throughout the year okay, so when you are talking of continuous assessment we assess learners formally and informally.*

Summary of responses on teachers' understanding of CA:

The analysis of the responses regarding their understanding of Continuous Assessment (CA) indicates that teachers generally understand CA as an assessment of learners that is linked to the competencies in the syllabus. They further understand CA as a way of monitoring learners' progress and assessing their understanding of the basic competencies on a continuous basis. They also understand CA as a process which is undertaken through formal and informal assessment activities which may be recorded or not.

The Assessment Policy (MoE, 1999, p.7) states that "when both formal and informal assessments are done on a regular and continuous basis they are referred to as Continuous Assessment (CA)". Furthermore, the Assessment Policy (MoE, 1999, p.6) states that "your assessments should be directly linked to the objectives and competencies specified in the syllabus. This linkage is implicit to a valid assessment".

In contrast, the participants' understanding of CA concurs well with the Policy's definition of CA. In theory, the participants seemed to possess the right understanding of what CA is all about but the same cannot be said in practice, due to the following observations:

- Some participants indicated (through the questionnaire) that they only used formal assessment as opposed to both formal and informal assessments; which is contrary to what the Policy defines as CA (see analysis on page 53).
- Questions 1(a)(iii) and Question 2(a)(iii)) as referenced in Appendices F_1 and F_2 respectively, are linked to the competency which is not prescribed for Mathematics Syllabus; this is also contrary to what the Policy defines as CA.

4.3.1.2 CA training

Question 2: Have you ever received any training where Continuous Assessment and its implementation have been discussed, who provided the training and was the training adequate or met your expectations?

Table 4.5: Verbatim Responses on CA Training

Teacher	Response
T02:	*Really there was no like training given on Continuous Assessment on my side I didn't received any training on Continuous Assessment but when we go for workshops we discuss with colleagues how to tackle the or how just to handle the Continuous Assessment itself, we discuss we agreed on some aspects some we disagree, … we just discuss and we follow the syllabus itself.*
T03:	*… when it comes to any training I only received one training since I started teaching here it was done by the my facilitator from X office and the still even them when it come to some task they don't really understand and anyway it open me when it come to some task how to record them and what to give as a topic task and what to give as a practical investigation or a project and again when it come to that training it was not that much really useful because we still I still don't understand some of the items when it comes to assessing my learners especially the difference between project and practical investigations. I do I still need training which they only provide they only train us on how to record marks in the form but they don't really explain in details what are the topic task in that form or what are the practical investigation the difference between the practical investigation or the test, they did not really explain it comes to some of those items.*

T05:	*Okay, on my side I did not since I came in this field I did not get any training on the continuous assessment, I only go through the document at least the Ministry make sure that every teacher has the documents and I went through the documents at least to find some information and where I don't understand I contact my subject advisor for at least for him to explain to me what they expect me to do.*
T06:	*… the training that we have, we have a type of a workshop where we have been work-shopped about the form itself how to fill in the continuous assessment form and how to sum up at the end of the course and also sometimes like the activities that how to go about with the activities when before you assess the learners because is not all the activities that a learner is doing that is may be required to be assessed so we normally have to; we have been trained on how to assess through the formal a not informal but somewhere sometimes the informal you can also use it but more especially in Mathematics really difficult in an informal about our assessment when we are assessing on that and when this one drives us now or it made me a bit to understand how to complete the form and it is also gave me a privilege of now working or how to look at the activity the quality of the activities and the value itself as a whole like by using the knowledge those questions whether knowledge skills and all those questions how to go about it when before you assess the learners before you give the activities to the learners like investigations, projects and assignments.*
T07:	*… I cannot recall having training about continuous assessment.*

Summary of the responses:

Three teachers out of the five respondents (60%) indicated that they had received some sort of training during a workshop. The training mainly focused on meticulous recording of Continuous Assessment (CA) and working out the final marks on the CA Record Sheet (see Appendix I). During the workshop, respondents were also trained on how to assess their learners using formal and informal methods, and on what to give as Topic Tasks and Practical Investigations. However, some respondents who received training indicated that the training was inadequate. For example, they felt that there was a need for detailed coverage on Practical Investigations and Projects. Some respondents indicated that they still did not know the difference between Practical Investigations and Projects; let alone how to assess their learners on these assessment activities.

In other words, some respondents still had difficulties creating appropriate Practical Investigations and Projects in order to comply with the provision of the syllabus as indicated in Table 2.1. Nevertheless, 40% of the respondents indicated that there was no training provided to them on CA ever since they joined the teaching profession.

The CA Policy instructs that if learners are given a Project, "they should be aware of what parts of the Project the teacher will give marks for and be provided with examples of good, average and poor Projects" (MoE, 1999, p.13). By analysis, the respondents' inadequate training on CA, particularly on Projects and Practical Investigations might have contributed a great deal to their inability to create and assess Projects and Practical Investigations that would enable them to comply with the above provision and/or requirement. It can be observed from Figure 4.4 that the Practical Investigation activity given to the learners in the name of CA was invalid as it was not practical in nature and it did not demand practical investigation skills. The example in Figure 4.5 (under Section 4.3.3.1) might therefore justify some of the respondents' need for further training.

4.3.1.3 CA training needs

Question 3: Should you need training on Continuous Assessment, what specific issues would like to be addressed?

Table 4.6: Verbatim Responses on CA Training Needs

Teacher	Response
T02:	*... Investigations and Project ... there I mean like how to give Investigation how to give Project in Mathematics like, with I the difference between the two I do not understand it Investigation and Project in Mathematics is a*

	'hard desk task' I normally use to give.
T03:	*Yes, in my view like in my case I want to be trained when it comes to Practical Investigation and Project but with test I am fine I want to be somebody to explain to me what are Practical Investigation and what are Project what is the difference between the two because to me now I still like in Mathematics I still don't know the difference between the two.*
T05:	*... I think what the ministry must do is they must at least train teachers on how to assess learners because it seems like a lot of teachers everyone have own method of assessing learners so the way I assess is not the way that teacher B assess so I think we must find a common way of assessing learners in all the school.*
T06:	*... in my view what I need to be improved on or more emphasised on in more details is on how construct really a Project and practical activity ...*
T07:	*... when one is to come up with a workshop so they must include the assessment methods of different topics like we have topics that need different assessment like in Mathematics we have construction so you cannot assess 'Construction' the same way you assess 'Money and Finance' so we need different assessment methods and techniques again on how to assess different topics on which one to be assessed first before what Okay like for example you cannot assess you cannot asses Money and Finance before 'Numbers' first you need to assess Numbers before you proceeds with Money and Finance.*

Summary of the responses:

Three (60%) out five teachers responded that they needed to be trained in order to understand the difference between Projects and Practical Investigations, including the marking criteria of those activities. Two respondents (40%) indicated that they needed training on different assessment methods and techniques. One (20%) of the respondents indicated that there was no uniformity as far as assessment methods were concerned across different schools. Therefore, she said that there was a need for the Ministry of Education, Arts and Culture to harmonise the assessment methods among Grade 10 Mathematics teachers.

An analysis of the teachers' responses to Questions 2 and 3 clearly demonstrates the need for and gravity of training on CA; particularly to understand the difference between Projects and Practical Investigations, as well as on assessment methods in general. This concurs with the CA Policy, which also takes cognisance of the training needs among Namibian teachers:

> There are teachers in the Namibian school system who are aware of the advantages of Continuous Assessment and who are implementing it with success. The majority, however, seems to be hesitant and need assistance and guidance before they will be able to implement Continuous Assessment with confidence (MoE, 1999, p.1).

It is against this background, therefore, that teachers need appropriate training to enhance their assessment capacity in order to implement CA with full confidence.

4.3.1.4 Structure of CA

Question 4: Can you explain to me how Continuous Assessment is structured in Grade 10 Mathematics at this school?

Table 4.7: Verbatim Responses on Structure of CA

Teacher	Response
T02:	*… here as I am the only Mathematics teacher for Grade 10, there is no like a formal maybe program in place how the CA can be conducted but what I normally do is like obvious in Mathematics we believe involve learners then they will not forget then that one can be like informal everyday mostly every day I make sure after I explain something to them they do something also. I mark it I see they understand just topic task just … task for instance I covered for three days I give them a topic task where books are closed even just out of ten that one I don't record it just to see they understand*

	now at the end of the topic itself or chapter is when I give the overall one out of twenty or even thirty, it is now a formal test. That formal test is then the one I either scale down just to accommodate the form itself for Grade 10 either I scale down to fifty to be investigation or I scale down to ten to be a topic test or ten to be a topic task. That is just how I get their marks that are the way.
T03:	*… like at our school now when it comes to Mathematics Continuous Assessment we make sure that we give enough task like topic task that I have to record and add together those task to have average. We don't we don't only record one specific task but we give like we give even three task that will add up to one task then you give another three task again that will add up to another task again and now you have to record their average out of ten that is what we do and when it comes to test again if we have enough time we make sure that we give enough test like you can give three four test then you record their average again because we believe that giving the like one test and then you record that in some case it does not show the true colour of the learner or may be if one learner happen to be absent on that day now that learner will have nothing to be recorded because you only have that test that is why we make sure that we have enough test and we give average for that.*
T05:	*Okay, especially at our school what we usually use to do is that all the grade 10 they get the same task so if I have to assess 10A at the same time I must also assess 10B and what we actual use do is the way we assess we make sure that all the learners they cover their book, so we monitor the assessment, we don't just give the task and then a learner come and then a learner is having excellent and you see a learner understand that basic competency. A learner can copy so what we usually use to do is we make sure that when we are assessing the learners, we monitored it; we don't just give the task and then we go out so in Mathematic I think that the way we are assessing to on my side I think is fair to everyone.*
T06:	*… so far in the plan of action at our school our Principals and HoDs they come up with the idea like you give at least three activities per week whereby perhaps you might determine whether one is can decide you assessing a learner or not and at least in one month you could give at least two to three tests and one project or an assignment in a month, that is how exactly it is was determined by the plan of action of our school so even though some where some where we have weaknesses perhaps that we did not do or complete it.*
T07:	*Okay, so what I used to do here I used to have my harvest my harvest form harvest form whereby I record all the marks of learners each and every task each and every test they are doing and according to the to the CA sheet we only have to record two task two test and two investigation so what I have to do I have to add the test together to come up with the average.*

Summary of the responses:

In their responses as to how Continuous Assessment (CA) was structured or implemented in their respective schools, the respondents appeared to differ in the manner in which they implemented CA. According to some respondents, a harvest sheet was used in their school. A harvest sheet is a document in which a collection of all learners' marks derived from various assessment activities are recorded, from which a set of marks will be chosen (either as individual activity marks or an average will be worked out) and transferred to the formal CA sheet. Three (60%) out of five respondents indicated that they used a harvest sheet to record the average marks from various assessment activities as opposed to the marks from one specific task. They believed that CA marks should be generated from more than one assessment task because that might provide a true reflection of learners' achievement.

One respondent indicated that a number of CA tasks were given over time for monitoring learners' progress. Thereafter, a major assessment task was given at the end of the topic or chapter. Finally, the learners' individual marks obtained were scaled down to serve as Topic Test marks or Practical Investigation marks.

Another respondent explained that learners across all Grade 10 class groups concurrently carried out CA tasks, which contributed to learners' summative marks, such as Topic Tasks and Topic Tests (with the exception of Projects and Practical Investigations), and teachers monitored the tasks to ensure that learners were not copying each other's work or answers.

On the contrary, the majority of respondents appeared to harvest more marks from various assessment tasks and eventually record the average marks for CA purposes. However, it is interesting to note how Practical Investigation was conducted in one of the schools. For example, T02 said:

> *… at the end of the topic itself or chapter is when I give the overall one out of twenty or even thirty, and it is now a formal test. That formal test is then the one I either scale down just to accommodate the form itself. For Grade 10, either I scale down to fifty to be an Investigation or I scale down to ten to be a Topic Test or ten to be a Topic Task.*

This revelation creates an impression that the respondent might not have realised that a Practical Investigation ought to engage a learner to apply some investigation skills in order to complete the task, unlike in the Topic Task or Topic Test. The manner in which this respondent carried out Practical Investigation could justify T02's response to Question 3:

> *... Investigations and Project ... there I mean like how to give Investigation how to give Project in Mathematics like, with ... I ... the difference between the two I do not understand it, Investigation and Project in Mathematics is a 'hard desk task' I normally use to give.*

'Hard Desk Task' refers to any normal assessment task which may not necessarily be a Project or Practical Investigation.

4.3.1.5 Importance of CA

Question 5: Why do you regard Continuous Assessment to be important/not important? Elaborate on your experience to motivate your answer.

Table 4.8: Verbatim Responses on Importance of CA

Teacher	Response
T02:	*I think I believe CA is very important either the formal one or the informal one because especially in Mathematic learners have to do something just for them not to forget buts when it comes to promotional to go to grade 11 is where I don't see the use of CA simple because their CA are I mean the exam itself learner wrote the common exam national but the continuous assessment itself it was not the same whereby some learners went through easy task some learners went through difficult task or difficult task and test aa therefore at the end there symbols of the learners is not the same some learners they are treated well some learners they are treated more fairly some learners they just even treated them group based works therefore like the one we send there I don't think that is that much important. There I believe it makes some learners to pass and also fail some learners, me I am of the opinion like learners can just do their work here work here and exam is just their promotional marks they wrote even exams out of two hundred scale it to one hundred their symbols period. ... I, you know like this year teachers we have different understanding the way we understand it is not the same, the way I assess my learner it is not the way someone assessing his or her learners at his school there now comes a different then it means some learners may be just copy some learners is like this some learners is like this therefore to me they come like CA at school some they are of high quality some they are of low quality some there is even none. Because nothing shows that ok these learners were assessed teachers can just even look at the learner and put marks there for them.*
T03:	*... to my experience continuous assessment is very important because it is it give a picture to me as a teacher if my learners have acquired something okay and also it give me a picture that if my learner they will be capable during the exam to give me good marks or they need more help because if we don't continue assessing them you will never know when it come to your learners you know some learners they are they are good when it comes to capturing information from the teacher but some learners they are we say they are slow learners they capture on their own pace now if you assess them you will know those different learner with their different disability and you will be able to assist them according to their pace and again on one side it also I can see that it is very important to learner to be assessed also for themselves to know you know if you give them a test and then a*

	learner get maybe a test was out twenty then a learner get five out of twenty a learner those that learner can see that Okay I need to improve or what I doing is great but if you don't assess that learner the learner will just be there until the final exam come when is when the learner is going to be assessed or is when you going to know that what you have put in together is not enough the effort you have put in throughout the year is not enough but if you assess them daily or weekly you will know that they are your learner are doing great or you need to put more effort may be you need to give remedial classes and so on.
T05:	*... On my side now I have been in this profession for almost eight years teaching Mathematic and I have been performing very well. But looking now at continuous assessment on my side I find it not fair because if you have to look to the CASS mark of learners you will find that learners they are having high CASS mark coming to the exam because I am also a national marker if you go for the marking you find that a certain learner who is having high CASS mark cannot get half of the marks in the final examination somewhere somehow we can really see that the way the teachers are assessing is not fair the marks the learners are getting as CASS marks most of them are fake. Teachers assess learner on the easy task for them to get high CASS mark cause some teachers believe that when the CASS mark is higher it is the benefit of the learner to pass the final examination which is not the case.*
T06:	*... I regard continuous assessment as important. I know the barrier or the challenges could be there sometimes but let me start with the importance is that it really looked at us as CA close first is concern as CA is really evaluating the work of the child and whatever the child is doing is not doing for good is just for nothing but is doing it because she is having that knowledge of doing it and then this is really measuring the capability and understanding of an individual learner, so I understand that whenever learner is having the year mark according to whatever they have been doing whatever might happen at the end down there those points those activity will really will really high ranking the learners the learners' level would put the learners that no learner B is supposed to be here but because ADC ABC something somewhere went well exactly only that I don't know I don't know what how do they go about it on the DNEA whenever a learner fell sick or something, but let me say a learner becomes unconscious cannot be able even to write if it is admitted in hospital for instance then I don't even know how they go about it there but what I am look at now is a is the collection the whole collection of those marks is really helping the learners there and when they reaches the DNEA there when the mark the answer sheet of the learner they will be able to see oo.. this learner was doing this at school but this is how she or he do it did it in the examinations then they can value now and worked out is this year mark correctly as the teacher give the learner or was not correct I really value it as important. But the challenges are like you see some of the works like the Namibia education system is more clarifying on group working and most of the learners are*

	more reliable to the others when one knows you might just if you happen to to assess this works that are mostly worked in group I know I understand they are also work but to mark those works that have been worked in a groups more especially like a home work or activity or something that you give perhaps in a worksheet then you give to the learner in group of two or three go it should be you need to be conscience somewhere you need to be careful because you know this learner may be benefit only from learner A and then when whenever you are sending this year mark now you was value it as important sometimes is not reflecting the truth colour of the learner.
T07:	*... I think continuous assessment is important as its helping learners to learn on how questions are being asked and as to again it is giving information to the teacher on how on which topic is difficult to the learners and on for the teachers to get to know how to help kids in some topics that that they are not performing, that is all.*

Summary of the responses:

Four (80%) out of five respondents acknowledged the importance of CA. They pointed out that CA provided information which served as feedback to both teachers and learners regarding the teaching and learning process and remediation. However, some respondents felt that CA served a good cause only insofar as the formative purpose was concerned. They mentioned that some teachers used poor quality CA tasks and/or activities, gave fake marks to their learners (marks which were not based on any work done, but simply given) and randomly selected learners' CA marks.

For example, T05 said:

> *… you must assess all the learners in one task. Now you find teachers who are jumping task, let me say learner A he will give marks for Money and put it on the assessment sheet, learner B will take mark for another topic. If this learner is weak in this task he will ignore this marks which is low and put the one which is high ….*

Some respondents also mentioned that CA as a process was characterised by lack of consistency and uniformity. This implies that teachers in various schools implement CA differently. Forty percent (40%) of the respondents were of the opinion that CA should not contribute to the learners' summative marks at all because, according to them, it lacked fairness.

Based on the responses above, it appears that some respondents recognised the contribution of CA to the improvement of the teaching and learning process, by providing information in respect of how learners are progressing; although some opposed the contribution of CA to the summative or promotional marks. This perspective on the importance of CA is compatible with the CA Policy, which states that CA is important because it provides information about learning that could be used to provide feedback on teaching and learning, among others. Furthermore, there was also a strong reflective view that CA was being implemented differently to such an extent that even respondents themselves felt they were not implementing it as expected. For example, T05 said:

> *…we can really see that the way the teachers are assessing is not fair. The marks the learners are getting as CA marks, most of them are fake… teachers we have different understanding. The way we understand it is not the same. The way I assess my learner it is not the way someone assessing his or her learners at his school. There now comes a different then it means some learners may be just copy, some learners is like this, some learners is like this. Therefore to me they come like CA at school, some they are of high*

quality, some they are of low quality, some there is even none. Therefore, like the one we send there, I don't think that is that much important.

4.3.1.6 Mathematics Syllabus guidance for Continuous Assessment

Question 6: How do you find the Grade 10 Mathematics syllabus in terms of guiding you on the following, please elaborate: (a) Developing tasks/activity for Continuous Assessment? (b) Grading tasks/activity for Continuous Assessment? (c) Recording marks for Continuous Assessment?

Table 4.9: Verbatim Responses on Syllabus Guidance for Continuous Assessment

Teacher	Response
T02	*Like in terms of recording marks, the syllabi give the maximum marks per task here I mean I can even give you like okay a test must be out of ten that way it gives some guide line. There, it gives like what the learner must know or what a learner must be able to do therefore now with those umm those outcomes or with that competence you also build you task according to the competence like okay learner must be able to do this therefore that is what you must put in the task. In terms of mark a symbols … it also give like okay may be from here up to here is an A here up to here is B but in terms of marking that can be something like a marking scheme or in terms of marks what? ... my opinion is may be to provide like Continuous Assessment manual where there are just example to give like this one even for this task topic like they say okay this is may be 'Numbers' okay these are the topics tasks you must give under Numbers then after Numbers that is the topic tasks that you must give under 'Money and Finance', that one can be better.*
T03:	*Okay, on the first one developing development the syllabus did not much guide a teacher on what to do even though it provides some hints that a task must be out of ten or a Project must be out of fifteen it did not provide in detail how to set up even a test or how to set up a topic task it only give information like a test must be a formal one and some task must be informal or formal one but it does not have did not explain it in detail what to do as a teacher on how to set up a task and two. Grading of Continuous Assessment, again it yes it gives us like when it comes to those test it must a test must be out of twenty and a task must be out of ten but sometimes when we look at a as a teacher now to give something out of ten we look at it as it as some of those task will be too short now we opt to give a task either like*

	a test out of forty and then I can convert if I have time or I can give a task out of fifteen or out of seventeen and then I have to convert that task to the required mark by the Continuous Assessment document but that is how I understand it. Recording marks again for Continuous Assessment on one side I can say the document has limited us like it only give like test you only have to record two now to me as a teacher I don't record as the document say like two test but I can give more test and then I add those test together then I record the average, Okay and that is what I do when it comes to topic task and also sometime that is what I do when it comes to project I don't record direct from one test into the Continuous Assessment document but I have to give more task and give the average.
T05:	*… Okay the first one developing tasks for Continuous Assessment, Okay on my side what I used to suggest I don't know if it can be possible I was thinking that we must involve Subject Advisor on coming up with the assessment task cause as a Subject Advisor, you need to come up with a task, a task for assessment you send all you teachers and then you must have specific day, let me say is Money and Finance then you say on 17 of Feb there will be a task of Money and Finance and all the schools under your all the schools will do that task on that specific day and may be in that way you can see that you can see that it will be somewhere somehow is going to be fair to everyone then me setting up a task on myself and another person setting a task himself and some task they are not for quality some tasks they are really poor so it depends and also a learner get use to the way the teacher is setting the tasks if they are my learners they know how Ms used to set up the task they will get used and I think we must involve other people on developing and setting up Continuous Assessment tasks to come up with the tasks and send it to teachers or if it cannot be possible, may be the cluster they must also teachers within the cluster they must team up and come up with one assessment. The syllabus is helpful but it is only that most of us we did not get the training on the Continuous Assessment. You find a new teacher coming in the field he don't know anything he get the document and she do what she understand on the document what she don't understand you leave it. Okay, there on grading tasks on assessment a document the document is okay but the problem is us teachers in the field we don't know how to do it is like because what I understand assessment you must assess learners you must assess all the learners in one task now you find teachers who are jumping task let me say learner A he will give marks for Money and put it on the assessment sheet learner B will take mark for another topic if this learner is week in this task he will ignore this marks which is low and put the one which is high cause teachers now they find that Continuous Assessment especially in Grade 10 becomes a benefit for some schools to perform to perform very well because they don't know what the national marker or what people use to go mark, they lack that information.*
T06:	*Okay, exactly the syllabus as a document it did not really exactly give you the criteria like how you decide this but it gives you the frame the frame*

	number of marks that you can rely on would before you set that activities. Okay, when you are grading a learner you also need to rely on the syllabus it is really clearly stipulating it. Recording the marks of the Continuous Assessment is very good like there is only one portion I think is on a what is this on the test iyaa (yes) the currently the format that we have now a is on the test, do you have one sir? Okay, is on the test there because the column in the third term there suppose not to be aa.. there the spaces become more so you have to escape one space then you will you will saw you will add them up so that they will give you seventy that is supposed to be an end of term mark".
T07:	*... It is helping because the syllabi is the one which is stating on what is need to be assessed in a certain topic instead of just following the text book. So the syllabus is the one that is guiding on how you are going to assess a certain theme. Grading and recording are… Iyaa (yes), the syllabi explained everything.*

Summary of the responses:

There were mixed feelings among the respondents regarding the syllabus with respect to the development, grading and recording of CA tasks and/or activities. Some respondents felt the syllabus was "somewhat" guiding them on the development, grading and recording tasks, while others felt that the syllabus was "sufficiently" providing the required guidance.

However, there was a call for Subject Advisors to develop common CA tasks for all schools. The teachers believed that this would eliminate the differences which come with the teacher-made assessment tasks, which they believed were of poor quality. Furthermore, the teachers expressed a need for a CA manual to assist and guide them to effectively implement CA. What is surprising here on the development of CA tasks is the fact that some of respondents indicated during the interviews that they did not understand the difference between Projects and Practical Investigations, yet these tasks are explained in the syllabus. This researcher is of the view that perhaps some

respondents did not read the syllabus to the letter. However, the researcher did not follow up on this matter during the interviews.

4.3.1.7 Helpfulness of the policy guide in the context of CA administration

Question 7: How helpful is the policy guide (MoE, 1999) "Towards Improving Continuous Assessment Policy and Information Guide" in the context of Continuous Assessment administration at your school?

Table 4.10: Verbatim Responses on Helpfulness of the Policy Guide in Context of CA Administration

Teacher	Response
T02:	*... That policy is not available, or if it is available it didn't come across my way.*
T03:	*The policy of assessment like in my case I don't know if I don't have that policy towards improving Continuous Assessment what I have is only a Subject Policy is the one that I use, may be if we have it at our school may be it is it is with our principal I have never seen that toward Improving Continuous Assessment Policy.*
T05:	*Okay, the policy is helpful a like at our case in our case at our school we really use to based our assessment on that policy because the head of department at least she try by all mean everyone to go through that document and she try by all mean to check every teacher' Continuous Assessment and we find it very useful because it guide us on what to do and what not to do when we are assessing learners.*
T06:	*... the document itself that this policy guide it comes up now it doesn't have something very different from the syllabus what is expected in the syllabus but it comes as it stipulated itself it is guide it is to give you an idea how to go about certain activity and what plus the importance of this ... Continuous Assessment just concern so when you are using it you really having an clear picture that on how many how many marks that you need to test a learner or during what examination and how to go about it if it is a short or like in Mathematics concerns as it concern paper 1 and paper 2 they are having two papers so you cannot this one is really guiding you cannot set up an examination which is on a perhaps you gave paper 1 you gave 30 marks while an perhaps on paper 2 you will give something like 30 marks then there you will give 70 or you will get 150 or something that is really irregular that the guiding it is guiding you exactly on how many marks supposed to be for paper 1 like 65 then you get one 85 on the second paper so when you add them they will give 130 you add the 70 for the year*

	mark or end of the term mark then before you decide the grade of a learner.
T07	*The policy is not available.*

Summary of the responses:

Sixty percent (60%) of the respondents indicated that they were not in possession of the National CA Policy, while 40% said they were in possession of the policy and found it helpful. However, those who indicated that they had the CA Policy did not seem to have knowledge of its content. For example, the majority of respondents could not explain or differentiate between 'valid' and 'reliable' Continuous Assessments when requested to do so; although these concepts are clearly explained in the policy document.

4.3.1.8 Teachers' possession of guiding instruments other than the syllabus

Question 8: What guiding instruments, other than the syllabus, do you have in place to ensure the quality of Continuous Assessment tasks/activities?

Table 4.11: Verbatim Responses on Possession of Guiding Instruments Other Than the Syllabus

Teacher	Response
T02:	*... apart from syllabus there are there is a scheme of work from scheme of work there are also some old question papers like old question papers help with activities because I must ask questions based on what is also normally used to be asked I check how the questions use to be and also is also where I build my questions.*
T03:	*... the other document that I have in place I have scheme of work the one that was compiled by the region which provide us information in which topic to take a Practical Investigation and from which topic we can take Project and also that document it provide me it give us a length how many topic to can you teach in order for you give a test that is the only document that I have in place with me additional to my syllabus and study my Subject Policy.*
T05:	*... like at our school we have a Subject Policy every subject has its own policy whereby we based our assessment on that so meaning that when we*

	are assessing learners we take the Continuous Assessment and then we take again the school subject policy and then it guide us on what to do and what not to do because everything is indicated in that document.
T06:	*… like in Mathematics exactly what we have in place up to now we did not have a certain document which is having which is measuring that this one is for the high quality but what we have is like you set up but you set up according to the a to the syllabus to the basic competences that is stated in the syllabus and then the syllabus is also reflected the basic competencies of the syllabus is also outlined in the scheme of work or programme of working this one that when you are working so you look at when you are asking the questions for instance for the test so you need to basic on the basic competences that you might take to my HOD then he can value to see what you set for the learners whether it is really what is expected learners to do. … and this one is also reflected when the and our HODs are visiting classes this class of observation when they are doing class observation and visiting our preparation files they have to check because the syllabus is there the scheme of work is there are you really the activity that you do is it really required for those learners of that level grade 10 to do it in Mathematics or not.*
T07:	*We have the Subject Policy … Mathematics policy for Grade 5 to 12 that one is in the file it is also guiding*

Summary of the responses:

In addition to the subject syllabus, 60% of the respondents mentioned the Subject Policy and the Scheme of Work as their guiding instruments to ensure quality of CA tasks/activities. One teacher mentioned that in addition to the Subject Syllabus, he used the Grade 10 Mathematics past examination question papers as a guide to make sure that his assessment questions conformed to the national standard.

Continuous Assessment, however, is not only about tests or topic tasks. It also includes Projects and Practical Investigations, among others, which require skills based on the psychomotor domain. The past examination question papers include questions which are

limited to Assessment Objectives A and B as prescribed in the syllabus (MoE, 2010), which require basic knowledge and technical skills, analysis, abstraction and synthesising skills which are based on the cognitive and affective domains. Therefore, using past examination questions which are only based on the cognitive and affective domains might not necessarily ensure that CA conforms to the national standard.

Furthermore, 60% of the respondents indicated that they had the Subject Policy as a guiding instrument to ensure the quality of CA tasks or activities. They also indicated under Question 7 (see Table 4.10) that they were not in possession of the CA Policy document. Interestingly, the Subject Policy in their possession requires that certain documents, among them the CA Policy, should guide assessment in Mathematics, yet they neither knew what it was nor did they know its content. What is clear here is that the respondents had not read the Subject Policy in order to know which documents should guide assessment in Mathematics.

Follow-up Question: How do you ensure that your Continuous Assessment is valid and reliable?

Table 4.12: Verbatim responses on ensuring validity and reliability of CA

Teacher	Response
T02:	*... to be valid and reliable I make sure the task which I record or the task which I record they must be done while I am invigilating the learners I give the like Okay you must do this while I am there to make sure there is no copying there is no like asking or there is no one who can do those questions. ... for instance ... for instance, like a Test or Investigation you know sometimes you can say Okay this is Investigation I will record it. You tell the learners I will record it then you give them an that Investigation they go with it home obvious they will find those people at grade 12 are do for me this activity then when it come to you, are good marks excellent you*

	record then send to DNEA. But for me what I do to make sure is quality and valid I make sure I just tell them Okay tomorrow or after tomorrow there is test about that topic, individual test your marks I will record them therefore what I record and send there is an individual learners' marks, no group work I can give them group work but I that one I will not even record it what I record is individual learners' mark done with a closed book is not like do while the book is opened that's why I look at as it is valid. *... that one then reliable can be can depend like to an individual because if I mark something I cannot really say when you go and mark it you will get my same marks but I make sure when I record the marks I give back the papers to the learners we go through like give feedbacks if there is an error there the learner can come back and say sir here you taught me like A and B and B then there can be able to change and also change the marks may before it to be reliable but the way we mark aaa ... (doubting).*
T03:	*... in that sense we like in Mathematics case what I usually do I make that the when I am assessing learner are the task that I am giving them are of the same quality as the standard exam the one from national in most cases I like to I prefer to use past aa question papers like in term of giving test like I have to take like 2010 question paper if I am teaching Money then I will look at the question that they ask that year and then I have to compile those question then I give a test or and sometimes I do some changes aa just because some learner they have those questions already I do I can do some few changes but I make sure changes that the test my test that I giving it is of the same quality as the final exam that the learner is going to write and also now if I give such a test if a learner can score better in that test that learner can score better in the exam and now when it come to their mark the CASS mark that I will send to Windhoek it is going to reflect the true colour of the learner when it comes to the final mark that is what I usually do.* *... like at our school now sometimes we don't really do like moderate somebody to come and moderate your work when you mark but as a teacher I have to ensure that when I mark a learner I mark a learner and then I go through again to see if there is somewhere that I did not mark the learner well and also before I give the task or before I before I mark the task I must make sure that I have the memo that I have to follow when I marking the learners and that memo will guide me that a learner will get this mark only if he do this and this for the learner to achieve full marks and also for me to be able to give correct marks to them an and when it comes to like end of term test those one after marking them as a teacher I have to give them to my principal again to moderate it end of term test are always moderated by the principal she I have to give the what the paper I that marked plus the memo and then she go through again to see if I have marked correctly and I have given all the mark that a learner deserve or I have or I did not give enough mark if there is any change she will instruct*

	me to go through again if there is differences.
T05:	*... on my side I know that the way that I assess my learners is what the document is saying I must do and I try by all means at least to give my learners what they deserve. Really there is no such a document that indicate that this what you are sending there is valid because on the Continuous Assessment sheet they don't really specific they don't real give specific topic they only say task out of ten or task out of fifteen so is up to a teacher now to decide what to give but now to me what I used to do is if I give twenty tasks out of ten if I give twenty task out of ten now I don't choose only one task what I do is I add all the task together and divide them with a total and then I will just get one marks out of all twenty and then to me I find I find that that is a good way of assessing because what you are sending is what the learner have worked for throughout the year not only for a specific task.* *It is, because … Okay is not easy to judge yourself but I think it is because the way I am assessing my learners and the way the final marks come before I even send my CA marks there I know that when I give my learner a sixty out seventy before they sit for their final examination I have already me myself as a teacher I have already given them marks knowing that this learner if this learner is having sixty out of seventy as CA mark on the final examination I expect this learner to give me an 'A' depend on the CA mark and every year when the results they will be out I sit with my two class list and check my learner was having a sixty what marks did my learner obtained in the final examination if my learner obtained an A and then I know that this year the way I assess is the way that I must continue assessing because there is no way of giving a learner a CA mark of an A* and on the final examination a learner is coming with a D then somewhere somehow you can see that your mark were fake marks.*
T06:	*... so the validity our HOD verify I take the harvest sheet and the CA sheet that one for the Ministry then I take out them together to the TA the HOD may require a.. activity books from learners to come and verify is this the mark that you give to learner A reflect the one that is reflected in the harvest form and CA form that is now you look at the validity of it what is it really true that what you recorded is what the learner did.* *... to see whether the marks are reliable mostly I I took for those individual works rather than taking the group work so when I take that individual work you can see that this learner is the one who did it and most of the time that I prefer I would like I like them to do it in the class while in my presence to see whether everybody is doing rather than somebody is just copying from other.*
T07:	*I think you can tell they are valid and reliable because they that is what the learner has been doing throughout the year.* *… but I used to I can't tell how I am just I cannot tell how to tell just*

	because that is what they deserve I used to mark strictly and I don't think I used to give marks for nothing or not giving kids marks or something.

Summary of the responses:

The teachers' responses revealed many different ways of ensuring CA validity and reliability. These include:

a) the use of questions from past national examination question papers;
b) the teacher invigilating the assessment activities from which the CA marks are obtained to avoid learners copying answers from other learners;
c) strict marking; and
d) giving more tests and topic tasks and recording their average marks, rather than recording marks from one short activity. According to the respondents, the average marks give a fair reflection of learners' achievements.

With regard to reliability, the respondents indicated that the provision of feedback on written assessment activities afforded their learners the opportunity to claim their marks which were not accounted for during the marking process.

They mentioned that compiling and rigorously following the memorandum during the marking ensured reliable marks. Furthermore, recording learners' individual marks as an alternative to marks obtained through group work was also mentioned as way of ensuring CA reliability.

On the contrary, the respondents' understanding of validity was somewhat detached from what is stated in CA Policy. According to the policy, marks from an assessment are

valid if the questions match the objectives in the syllabus (MoE, 1999). The analysis of the teachers' responses on validity showed that the responses were more directed towards what 'they used' and 'what they did' to generate CA marks. The respondents' understanding of validity therefore gives an impression that the assessment objectives and competencies did not necessarily receive due consideration when assessment instruments were being developed.

Reliability, on the other hand, means that one's assessment results must be consistent (MoE, 1999). In the researcher's view, following a memorandum during marking is important, but it might not in itself lead to reliable marks. Therefore, CA is reliable if, for example, two markers mark the same group of learners' answer scripts and award the same marks.

4.3.1.9 Monitoring of CA to ensure adherence to national regulations

Question 9: Would you please explain how Continuous Assessment is monitored in Grade 10 Mathematics to ensure adherence to national norms regulating the implementation of Continuous Assessment at this school?

Table 4.13: Verbatim Responses on CA Monitoring to Ensure Adherence to National Regulations

Teacher	Response
T02:	*At our school like CA is like to be monitored by managements, we just submit our papers and books just to be monitored by the principal.*
T03:	*Iyaa, at our schools, like, when it comes to monitoring, like in my … in my case, Mathematic madam have to monitor it. She have to go through learners' book at the same time. Sometime she even have to even ask me to provide some question paper sample to check if that test is of good quality and also the other thing that … uh … we do, she also make sure that whenever we are doing markings and so on, sometimes she come and check if we are … the way we are marking is the correct way to mark in order for*

	those learners to benefit to their marks and also for the teacher to give correct mark … learner, but not ghost marks. And sometimes also, when it comes to task, sometimes you can give a task you can set up a test but if the madam monitor it and find out that is very low quality compared to the quality of Grade 10, then that task she can even instruct you not to record it because it is giving … it … that it is not contributing to the benefit of the learner. The learner will not benefit anything in that sense.
T05:	*… the way we monitor our assessment at our school is that we don't assess our learners during lesson during lesson we teach and an assessment we always do it during study time whereby you as a teacher now you must be in the class at our school what we usually use to do is when you are assessing learners there is now way that you can assess the learners and go sit in the staff room you will be in the classroom monitoring all the learners that they are not copying or they are not asking or they are not asking answers from others and another way again that we use do to at our school we usually use to give home work but when it comes to Continuous Assessment for the assessment to record the marks we don't record the marks for the homework because homework is something else a person can go and copy at home a person can go ask the parents to do it so we usually give homework but not as an assessment that we are going to record the one for recording we make sure that we monitor it in the class and every one hand in at the same time. ... now what we usually use to do is the first thing that I do when I assess my learners I don't assess my learners on the Continuous Assessment sheet I assess my learners on the class list then what happen is now after I hand in all the marks in the class list I take the Continuous Assessment sheet and then I fill in my marks and the way I fill in my marks is if I have given ten test and then in the Continuous Assessment sheet they are only asking two test I divide my ten test and make five and then I add the total test the total five test of one learners and divide it with five and get one mark and then I divide the other five again and get one marks and then it became two test and then I put my two test on the Continuous Assessment sheet and the what happen now there I give my Continuous Assessment sheet to my HoD first to check cause a HoD sometime can come to me and question me and say why is this learner having few CA marks or why is this learner having high CA mark me myself I must be able to support my CA mark I must be able to say this such a learner is having high CA marks because all the task that I have given this learner obtained high marks and I am not doubting of my learner I know this specific learners can give me an A at the end, or this specific learners is having low marks there is no way I can cook marks for this learner I give what the learner deserves. What we actually use do to at our school is that I before I take before I take my CA mark to the HoD HoD will go in my class list in the list and then will select few learners even ten or five and then will ask me that when you are coming when you are bringing your CA mark I need the book for this ten learners or I need the books for this twenty learners at least and when she is going now to check my CA*

	mark she is going back to the work of the learner and see that the ten that she is getting in the form she must be able to see that ten in the book and if she cannot see that she has to call now the subject teachers to come and explain because like in my case she might look for that ten but she cannot get that ten in the book cause what I usually use to do I add them together and divide.
T06:	*... our HOD who is having to to work and see whether you did as it is expected to you by the Ministry to do for a learner, iyaa (yes) this is how we collected this one we record them in the form and then see whether you did it correctly as high as it how as how it is supposed to be done in the correct form whether you used the correct format no not format exactly but a formula how to calculate it because otherwise there are many ways of killing one cat one may use another but there is certain method that is stipulated in the CA form that we should use before we sum up and it to DNEA.*
T07:	*... we used to submit our marks to the HODs to confirm before we finalise. They go through and the when you submitting the CA sheet you have to submit it together with the harvesting sheet so they will go and compare and to how and what is what how did you come up with some marks because like in my case as I said I used to get the average because I didn't I don't only give two tests a term I give more than that so I work out the average.*

Summary of the responses:

All respondents explained that the monitoring of CA in their respective schools was done by members of the school management, which included Heads of Department (HoDs) and School Principals. Moreover, some respondents also indicated that they submitted their harvest sheets together with the CA sheets to the HoD for monitoring before they finalised the marks. Furthermore, one of the respondents said that the HoD verified the marks recorded in the CA sheet by tracing them from the sample test books; whereby teachers were compelled to explain the low or high marks obtained in some cases.

It appears from the teachers' responses that the monitoring focused more on marks the learners obtained than the CA instruments used for assessment. It also appears as if monitors did not bother to ensure that the instruments assessed the prescribed learning objectives and competencies. The researcher is of the view that there is a need for monitors; first and foremost to ensure that the correct competencies are assessed so that the assessment is valid before monitoring the recorded marks, because in the end, learners might be assessed on wrong competencies as appears in Figure 4.5, Question 1(iii) under Subsection 4.3.3.1. The CA Policy states that "marks from an assessment are valid if the questions match the objectives in the syllabus" (MoE, 1999, p.6).

It may also further be stated here that if learners are assessed using instruments which contain questions based on invalid competencies, this might lead to learners obtaining low marks in the national examinations as compared to the CA as shown in Table 1.2 (Chapter 1). This could be so because there might be a mismatch between the competencies assessed for CA and national examinations. In this regard, the CA Policy states that,

> When Continuous Assessments are done properly they should predict performance on the end-of-year examinations. This is because of the overlap between objectives and competencies assessed using Continuous Assessment during the school year and further assessed in an examination at the end of the school year (MoE, 1999, p.11).

4.3.1.10 Shortcomings in CA implementation process

Question 10: Based on your experience, what are shortcomings within the process of Continuous Assessment implementation, both in the national documents (Syllabus and Assessment Policy) and in practice; elaborate on these shortcomings please?

Table 4.14: Verbatim Responses on Shortcomings in CA Implementation Process

Teacher	Response
T02:	*The syllabi itself now make it hard like to come up with a valid or the one activity you call that one is a quality work because it does not give the like the real even the example itself it only give you like the task must be out of ten but the quality of the task that one is a really big problem you can either like be like having problem to come up with just task now you talk about like now as on my own experience are you know you teach like Mathematics for four three years or five years and the problem come here like okay you will you can even say let me just like re-ask the same questions I asked last year even for instance I can say okay my Topic Task I rather keep them in the file then they will be the one I can just use next year that one now learners also once they left school they give their books to their brothers and their siblings now it make it hard for you every and each year you are coming up with a new task each and every year you come up with a new task each and every year you come up with a new task that one now become a problem on practice.*
T03:	*... the shortcoming when it comes to Continuous Assessment sometimes we only far I only the most … experience is sometimes a a time when I giving task I might find myself very behind because of the time that I have and also I have different other subject to cater then I might not give enough task that a learner or task that a learner supposed to have in order to be perfect and also the other shortcoming that I have is most of the task which are in their the textbook that we have that we are using some of them are of poor qualities they don't really assess what the syllabus and scheme of work is asking they are too in other word I can say they are too shallow they did not assess the learner deeper as per cause most of them the task that we have in those text book compared to that final exam that we have they differ they don't have that good same quality they some of those questions they are too easy and some of the task they don't have follow up question the task from the text book like how the final exam will be that is why sometimes we are forced to use other resources to like in my cases I opt for study guide for NAMCOL is the one that I opt for to avoid some of those that is what I do but mostly is task and the text book that we have and again we are we have a lot of like in my case I got a lot of textbook like I have*

	Mathematics in Context but if you look at the task that they have in that book again they are of poor quality and I have to opt for either to use for to get the task from study guide or to get from old question paper, those are some of the problem that we I face.
T05:	*... to me actually on my said as I have said at the beginning I am not supporting the Continuous Assessment are on the final examination. Okay Continuous Assessment it must be done to assess the learners to see if the learners understand but the whole process of sending marks to the exam I mean to add marks to the examination to me I find it totally unfair because now as we are talking teachers they have also teachers they also understand what is CA mark and they also come up with a tactic of hitting good marks what most school that use to do is if we have to look on the on the assessment that use to come on the final examination you will find that some schools they are always having plus on their CA mark and most school they are always having minus on CA mark what happen for your school to have plus on their CA mark so school some schools they know they have bad good learners I don't want to mention schools' name but I know them they have good learners now what they use to do is they give their learners low CA mark for them to benefit a plus of thirty and you will find that the whole school is having a hundred percent what if those learners why if those learners they are the best why they cannot hit on the CA mark why they only hit on the final examination? And another side again you will find a school having high CA mark and when it comes to the exam they are having low mark meaning that the way the teacher is assessing is not good so now here the person who understand how CA mark and exam work they are hitting the person who don't understand CA mark and exam work their learners are always failing so I find it the whole process is totally unfair to others.*
T06:	*... when I look at the syllabus the syllabus it is national document as it is national document it did not state ... that under which topic supposed to be give a Project for example those big works ... they suppose even to be give us even exactly that okay under this topic give the Project and then you give Project about what to check the reliability whatever other people are doing on the other corner of the country is what exactly the learners are doing here so you find us now I give the Project on a Statistics somebody gives on Project on a for example on the Proofing Pythagoras Theorem now these people these two people they are all giving the same mark in the CA form Continuous Assessment form as it is contributing to the year mark of the learner but the mark of the year mark the year mark of the learner they are all the same nationally they are the same so but when you give the work there is when you have count and convert. They were supposed to give us exactly on which topic we suppose to give in Project and or assignment or Practical Investigation about what and the framework the frame mark the expected marks they supposed to be how many like what they did in the examination paper one is supposed to have how many mark they suppose also to decide because like if you give the Project give this*

	one then from there you convert like this now one is giving out of thirty I am giving out fifty the other one is giving out of sixty when you convert obvious it is going to give you the mean the average mean of that but according to the work because if you give more than the learner perhaps the work that you give the marking criteria that you use. I think that you understand me the marking criteria that you will use this person perhaps the teacher B will look at everything that the learner did that is why goes up to sixty marks before he converted but if if this activity is not of high quality because the document was supposed to guide us that give about this topic and the marks must be only this then we divide ourselves then we divide them to determine the marks where to mark and where to put the marks until you complete all the marks in the activity rather than somebody is giving for thirty one for forty the other one for sixty and all those type of things. Any way about my experience what I experience up to now we are still meeting some challenges somewhere somehow because you find you're your supervisor is telling you no this marks this marks are make our learners failed like grade 10 remember grade 10 is called national wide in the radio and everybody want to be there with the name being called so but this is really the challenge because your supervisor you cannot say Okay you cannot tell me to do this because ABCD you might find up yourself sometimes having a difference with your supervisor so exactly I did not observe this one currently at our school but I know it has been happening those years and I usually meet my colleagues there at workshops and somewhere when meet we are all having the same probably problem this is what I look at in the way that a document. ... differences like you do not want to follow what is perhaps is telling you to do and is like you undermining perhaps you want to fail the school and use you that type of thing, this is the differences that I mean. ... I do not want to lie to you but it happens like that exactly you get it focused ... that is the truth that perhaps now you recorded there but they will say, oh did you give enough work or how comes that this are low marks, our school is going to fail.
T07:	*... the only problem I think is with some like in the Continuous Assessment they are telling of two tests that you have to record and sometimes you give more than that so it is difficult is a bit complicated to convert to get the average as I am saying and sometimes like in the examination there are times like this examination for the cluster and circuit thing sometimes they assess kids doing Mathematics as if they are doing Additional Mathematics.*

Summary of the responses:

Respondents expressed the following shortcomings regarding the implementation of CA:

a) lack of guidance in the syllabus on how to come up with quality assessment tasks;
b) poor quality assessment activities in the prescribed text books; which do not assess all competencies in the syllabus;
c) manipulation of CA marks for two reasons: (1) as a result of pressure from some school principals to increase the CA marks in anticipation of better performance for the schools; (2) for the school to benefit from adjustments of CA marks done by the Directorate of National Examinations and Assessment (DNEA) through Statistical Moderation (which is explained in Chapter 2 under Subsection 2.2.4);
d) lack of guidance in the syllabus regarding the topics in which teachers should assess learners through Projects and Practical Investigations;
e) difficulties with the conversion of marks (in cases where more assessment tasks have been given) in order to comply with the syllabus requirement as indicated in Table 2.1;
f) sometimes cluster or circuit-based examination question papers consist of questions based on invalid competencies, for example competencies prescribed for Additional Mathematics level (Extended), while learners are only doing Mathematics (Core);
g) inadequate time to allow teachers to thoroughly assess the learners.

The analysis of some of the teachers' responses stimulates a perception that some teachers rely on the already developed questions instead of developing their own. They use questions provided at the end of each chapter in the prescribed text books and other sources such as Namibian College of Open Learning (NAMCOL)'s study guides and

past examination question papers. The dependency on readily available questions without due consideration of the prescribed competencies in the syllabus might lead to erroneous assessment of learners such as those in Figure 4.4, question 1(iii) and Figure 4.6, question 2(a)(iii), respectively. According to the CA Policy, each question in the assessment task must be linked to the correct competency in the syllabus.

4.3.2 Emerging Themes

Teachers' responses were further analysed and the following themes emerged: (a) Teachers' Understanding of Continuous Assessment, (b) Teachers' Training Needs, (c) Provision of Guiding Documents, (d) Moderation and Quality of Continuous Assessment Instruments, (e) Misconceptions on Continuous Assessment Validity and Reliability and (f) Experience and Perceptions.

4.3.2.1 Teachers' Understanding of Continuous Assessment

The five teachers who took part in the interview sessions appeared to possess the same understanding of what CA entails. They emphasised more on the summative function of CA. Nunn (2011) describes CA as a systematic process of gathering evidence about student learning while it is happening and thereby providing teachers with the information they need to move students' learning forward. According to Nunn (2011), CA plays two distinctive roles – that of collecting information which informs the teacher how well the learners are achieving and that of improving the teaching and learning process.

The participants seemed to see CA as a process that focuses more on the learners and the collection of marks than improving the teaching and learning processes as shown in the following statements extracted from the participants' responses:

> *... assessing learners on their works according to the syllabus itself and you assess them continuously like day by day ...*; *a way of assessing learners to see how they are progressing ...*; *... is the way of monitoring learners' progress throughout the year ...*; *... is the assessing of learners' work throughout their endeavours to the completion of the course ...*; *... when you talk of CA we assess learners formally and informally*.

These viewpoints represent one-sidedness of what CA ought to fulfil in comparison to what the CA Policy states. This could be attributed to the fact that participants might not have realised that other CA qualities are equally important as much as that of improving teaching and learning. According to the CA Policy (MoE, 1999, p.5), CA provides information about learning that can be used to:

a) diagnose learner strengths and needs,
b) provide feedback on teaching and learning,
c) provide a basis for instructional placement,
d) inform and guide instruction,
e) communicate learning expectations,
f) motivate and focus learner attention and effort,
g) provide practice applying knowledge and skills,
h) provide a basis for learner evaluation, such as grading; and finally,

i) gauge programme effectiveness.

4.3.2.2 Teachers' Training Needs on Continuous Assessment

The teachers who were interviewed generally revealed non-attendance of any training specifically regarding the implementation of CA. Notwithstanding the lack of CA training, it appears that a number of workshops were conducted and brought teachers together, which they saw as an opportunity to exchange ideas about matters that hamper teaching, learning and assessment. It is evident from the teachers' responses that the development and assessment of tasks which assess learners' achievements, particularly in the affective and psychomotor domains, leaves a lot to be desired. For example, one teacher said, "*… I still don't understand some of the items when it comes to assessing my learners, especially the difference between Project and Practical Investigations, I still need training.*" Some responses indicate that teachers are left to improvise as far as CA is concerned by utilising the available documents provided by the Ministry of Education. For example, another teacher said,

> *… I did not get any training on the CA since I came in this field, ... I went through the documents, at least I find some information and where I don't understand I contact my subject advisor for at least to explain to me what they expect me to do*.

The expressions by teachers signify that there is a need for training on the implementation of CA. According to the respondents, the training is particularly needed, firstly, to understand the difference between Projects and Practical Investigations; secondly, to be equipped with a skill to develop these assessment tasks and thirdly, to

know how to mark them. It appears that the Ministry of Education had foreseen that there was a need for teachers to be trained in order to implement CA with confidence. The Policy states that "the majority of Namibian teachers seem to be hesitant and need assistance and guidance before they will be able to implement Continuous Assessment with confidence" (MoE, 1999, p.1).

This Policy's acknowledgement entails that there should have been training in order to assist and guide teachers on how to effectively implement CA. However, it seems that this training need was not attended to. As a result, the majority of teachers continue to experience a knowledge gap on CA implementation.

4.3.2.3 Teachers' Non-possession of National Assessment Policy Document

The majority (60%) of respondents who were interviewed indicated that they had never seen the National CA Policy and those who indicated that they had it in their possessions (40%) appeared not to have the knowledge of its content. For example, they could hardly differentiate between CA validity and reliability when requested to do so, despite these concepts being explained in the Policy document.

As stated earlier under Question 8 above, the majority (60%) of the respondents indicated that they were in possession of the Subject Policy. This Subject Policy has outlined the documents which should guide assessment in Mathematics, such as:

a) The subject syllabus;

b) National Curriculum for Basic Education;

c) Towards improving Continuous Assessment in schools: a Policy and Information Guide;
d) Guidelines in the Teachers' Manual;
e) DNEA directives;
f) Guidelines for Teachers on Setting and Marking Assessments, January 2005;
g) Formal Education circulars on assessment and promotion (MoE, 2009, p.8).

Therefore, based on the list above, the respondents who indicated that they had the Subject Policy should have made an effort, in the researcher's view, to ensure that they were in possession of at least most of the documents listed.

This is because, by requirement, these should be part of the school structure. The logical conclusion that one may deduce from the above information is that the respondents might not have read the content of the Subject Policy in order to understand its provisions. Furthermore, the CA Policy has explained 'what valid and reliable assessments are' in an effort to facilitate teachers' understanding of such matters.

Based on the CA Policy; "the majority of Namibian teachers need assistance and guidance before they will be able to implement CA with confidence" (MoE, 1999, p.1). Sixty percent (60%) of the respondents indicated that they had no training on CA implementation, including those who had been teaching for eight (8) years, to ensure that teachers implement CA with confidence. Therefore, the above statement may possibly be construed to imply that the aforesaid assistance and guidance might not have been provided, hence the respondents were asking for training.

4.3.2.4 Moderation and Quality of Continuous Assessment Instruments

About 40% of the respondents indicated that they relied on the questions from the past years' examination question papers to draw up the instruments for learners' assessment. It seems the teachers believed that by using questions extracted from past national examination questions papers, the quality of their assessment instruments was automatically guaranteed because the questions were set at national level. One of the respondents said,

> *… when I am assessing learners, the tasks that I am giving them are of the same quality as the standard exam the one from national. In most cases I like to use past question papers like in terms of giving test*.

It might be deduced from the reliance on or usage of past examination questions and/or question papers that respondents were not considering some important assessment factors, such as competencies to be assessed and assessment domains (knowledge, comprehension, application, among others) within the question paper (instrument) as prescribed in the syllabus. Furthermore, some respondents indicated that their instruments were not moderated to ensure that the instruments would assess what they were supposed to be assessing. One of the respondents said, "*The only thing which is being monitored or moderated is the assessment marks, but not really the assessment activities or instruments*."

The analysis of some respondents' assessment instruments (test papers) at various schools and circuits revealed that the respondents had the same practice of 'cutting and pasting' questions without adherence to the syllabus. For example, the extracts of test

papers in Figures 4.5 and 4.6 shows the same invalid question (iii) which was used in test papers for learners enrolled for Mathematics (Core) level. In both cases however, learners were required to do the same question which, according to the syllabus (MoE, 2010, p.21 also see Appendix F_3), was meant for Additional Mathematics (Extended) level. This clearly demonstrates that the requirements of the prescribed competency in these cases might not have been given due consideration. As a result, the quality of the test papers in terms of CA validity was compromised.

4.3.2.5 Misconceptions on Continuous Assessment's Validity and Reliability

As mentioned under Question 7 above, the majority of the respondents who were interviewed could not differentiate between CA validity and reliability. The CA Policy states that CA is valid if the questions match the objectives and competencies in the syllabus. It furthermore states that reliability means that the assessment results must be consistent. It appears as if some respondents understood CA validity and reliability to mean 'marking strictly' or 'giving what the learners deserve'. For example, some respondents said (see Appendix G):

> *…I used to mark strictly and I don't think I used to give marks for nothing …, I think you can tell they are valid and reliable because that is what the learner has been doing throughout the year, I know that the way I assess my learners is what the document is saying I must do and I try by all means at least to give my learners what they deserve.*

From the responses, it is clear that there is a difference between what respondents perceived to be valid and reliable CA and what CA Policy states. Therefore, this might

have made it difficult for respondents to ensure that their assessment instruments were valid and marks generated thereof were reliable if they did not know the meaning of CA validity and reliability.

4.3.2.6 Teachers' Experiences and Perceptions of Continuous Assessment

The analysis of the teachers' experiences and perceptions towards CA reveals a common sentiment. The teachers perceived CA as an important process through which they (teachers) received continuous information regarding learners' achievements of learning objectives. However, some of the respondents felt that CA should only be administered for formative purposes. They felt that the administration of CA in different schools was characterised by many factors; therefore, they felt that CA should not be part of learners' summative marks. According to some respondents, the following factors characterised the administration of CA in different schools (extracts from Appendix G):

a) some teachers choose CA marks at random depending on which assessment task a learner has scored the highest marks;
b) some learners do assessment tasks that are too easy to get high CA marks in anticipation to easily pass the national examination (when CA marks are combined with examination marks in the ratio of 7:13);
c) some learners are given fake or cooked marks;
d) teachers use the same assessment tasks from one year to another;
e) manipulation (literary increasing) of CA marks on the instruction of some school principals to boost school performance in the national examination.

The respondents acknowledged that CA was important as it provided information which helped them to enhance learners' achievements through teaching and learning processes. At the same time, some respondents felt that CA should not be part of learners' promotional marks. This view emanated from the perception that CA was being implemented differently in some schools. Therefore, according to some respondents' opinion there was no fairness in CA being part of learners' promotional marks. In relation to the respondents' views, the CA Policy states that "CA allows for the assessment, in a classroom environment, performance-based activities that cannot or are difficult to assess in an examination. Hence, it contributes to the end-of-year promotion grade so that all learners have an opportunity to show their true mastery of the syllabus' objectives and competencies" (MoE, 1999, p.8).

4.3.3 Part B: Document Analysis

This section contains analysis and presentation of data obtained from document analysis. The analysis was carried out mainly for three reasons: to ascertain the extent to which Grade 10 Mathematics teachers in Oshikoto Region align CA to national assessment norms; assess the extent to which teachers' assessment instruments cater for various assessment domains and to validate and cross-check the data from questionnaires and interviews. The analysis involved the following documents: assessment instruments (Tests, Projects, Topic Tasks, and Practical Investigations), learners' homework books; learners' answer scripts, teacher' subject files, CA harvest sheets and CA record sheets. The analysis was carried out following a Document Analysis Sheet (Appendix C) as well a Question Paper Analysis Sheet (Appendix D).

4.3.3.1 Availability of CA Policy and Subject Syllabus

Question 1: Is the Continuous Assessment policy and subject syllabus available?

The analysis revealed that all respondents had the correct version of the subject syllabus (Mathematics Syllabus: Grade 8-10, 2010). However, only one out of five teachers was found to be in possession of the National CA Policy document.

4.3.3.2 Availability and Usage of CA Plan

Question 2: Is Continuous Assessment plan in place and followed?

The Grade 10 Mathematics teachers are required to plan and programme CA at the beginning of the academic year as directed by the National CA Policy. The analysis revealed that none of the five respondents had the CA plan in place and were not aware of such provisional requirement.

4.3.3.3 Regular Giving and Marking of CA Activities

Question 3: Are Continuous Assessment activities (tests, tasks, projects, and so forth) regularly given and marked?

The analysis revealed that learners were regularly assessed through Topic Tests and Topic Tasks. Topic Tests are tests given following the completion of each topic, while Topic Tasks are activities that most teachers already use in their day to day teaching. These are assessed and recorded activities that could introduce a topic or be used during teaching a topic or revision of a topic. There was also enough evidence that these

assessment tasks were regularly marked. However, there was little to no evidence of Projects and Practical Investigations being conducted.

The analysis further revealed that, where Practical Investigation was given, it did not meet the assessment requirements to be classified as a Practical Investigation. Practical Investigations are assessment activities set to develop the Mathematical concepts or skills of systematic investigation into specific cases with a view to observe general trends. Practical Investigations assess the learners' ability to think and reason independently and to reflect critically on their own thinking (MoE, 2010). For example, in Figure 4.4 below (an extract of Appendix E_1), Exercise 2 was given as a Practical Investigation, yet it does not assess learners' Practical Investigation skills.

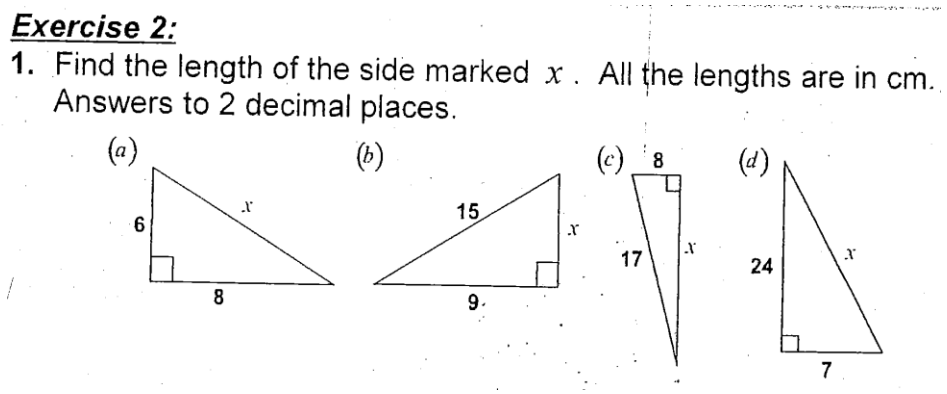


Figure 4.4: Invalid Learners' Practical Investigation

4.3.3.4 Validity of Questions Given

Question 4: Are the questions based on or do they assess the basic competencies (validity)?

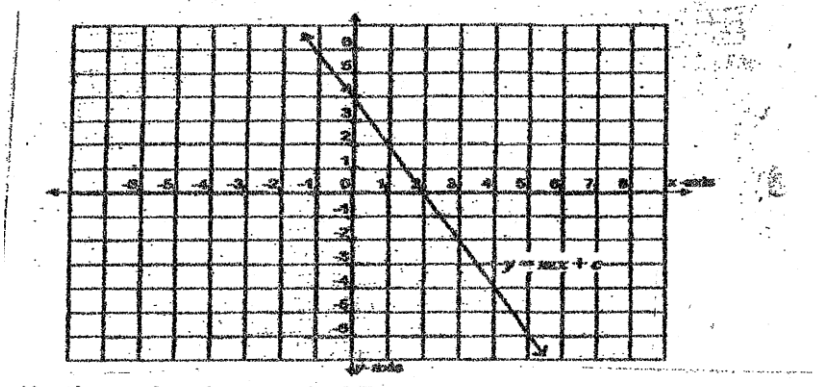
To a large extent, there was vast evidence that the assessment instruments used by teachers consisted of questions from past years' examination question papers.

The analysis of some assessment instruments (tests) revealed that some teachers do not always pay particular attention to the basic competencies which are prescribed to be assessed as outlined in the subject syllabus during the 'cutting and pasting' of questions. It looks as if they, blindly, select the questions from past examination question papers. For example, in Figures 4.5 and 4.6 below (extracts of Appendices F_1 and F_2), the questions in Part 1(iii) and Part 2(a)(iii) respectively, were meant to assess learners who doing Additional Mathematics level (Extended/Higher), but they were used to assess learners who were doing Mathematics level (Core). Additional Mathematics level is meant to provide a sound foundation for those learners who want to continue in Namibia Senior Secondary Certificate (NSSC) with Mathematics at the Higher Level. The competency requires the learners who are doing Additional Mathematics to "find the equation of a straight line graph" (MoE, 2010, p.21), (see Appendix F_3). Therefore, this indicates that the learners were invalidly assessed on this competency.

Similar cases of invalid assessment of learners pursuing Mathematics as opposed to Additional Mathematics were observed in three assessment instruments for three different schools in different Circuits (see two examples in Figures 4.5 and 4.6 below).

Mathematics Test
Grade 10
Topic: Graphs [07-03-2014]

On the grid below is a graph of $y = mx + c$



Use the graph and answer the following:

(i) What is the value of c

Answer(a)(i).....[1]

(ii) Find the gradient of the graph.

Answer(a)(ii) .....[3]

(iii) Write down the equation of the graph, giving the values for m and c

Figure 4.5: Invalid Assessment Question 1 (iii)

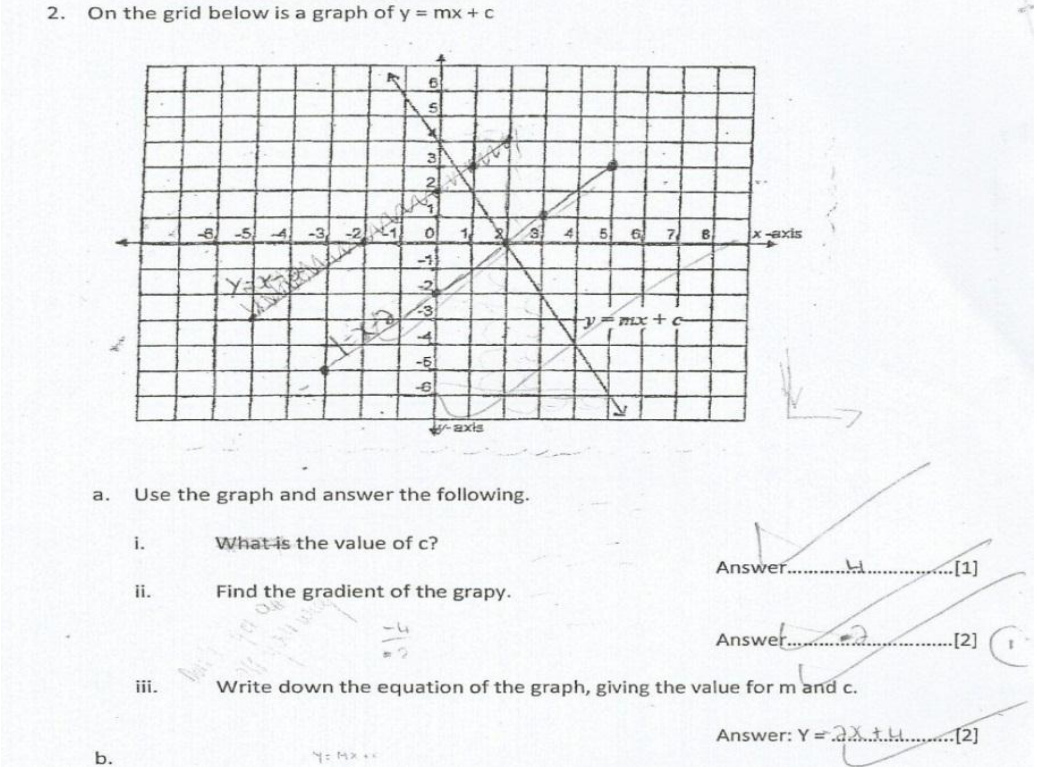


Figure 4.6: Invalid Assessment Question 2(a)(iii)

4.3.3.5 Balance of Questions in CA Instruments Regarding Assessment Domains

Question 5: Do the questions in the Continuous Assessment instruments strike the balance between various assessment domains (for example, knowledge, comprehension, application, and so forth)?

The analysis of various assessment instruments such as Topic Tests and End-of-Term Tests, as pointed out under Question 4 above, revealed that most teachers hardly construct their own questions. Instead, they rely on past national examination question papers as a source of questions for their assessment instruments.

Moreover, two question papers or assessment instruments (End-of-Term Tests, April 2014) from two different circuits in Oshikoto Education Region were analysed.

The analysis revealed that from 9% to 12% of 85 marks (total marks) in each of the two question papers were allocated to questions requiring low cognitive levels (Assessment Objective A: Basic Knowledge and Technical Skills), while from 88% to 91% of total marks required high cognitive levels (Assessment Objective B: Analysis, Abstraction and Synthesising Skills).

Furthermore, analysis revealed that teachers seem to place more focus on the topic being taught or being discussed and ignore the competencies to be assessed when devising assessment instruments. For example, if a teacher is dealing with a topic 'Graphs and Functions', then he or she tends to find a question(s) on graphs from past examination question papers and merely give it (or them) to the learners without considering what competencies require on Graphs and Functions for learners pursuing Mathematics or Additional Mathematics.

It appears as if little to no attention is given to what a competency prescribes. A point in reference is Questions 1(iii) and 2(a) (iii) in Figures 4.5 and 4.6 respectively. Such questions are based on a competency prescribed for learners pursuing Additional Mathematics, yet learners pursuing Mathematics were assessed on it. The CA Policy states that, "Marks from an assessment are valid if the questions match the objectives and competencies in the syllabus" (MoE, 1999, p.6).

4.3.3.6 Usage of Moderation System

Question 6: Is the moderation system of Continuous Assessment tools/instruments in place and followed?

All (100%) of the respondents who were interviewed initially indicated that none of their assessment instruments were subjected to the moderation process, with the exception of the Regional, Circuit or Cluster based End-of-Term Tests. The analysis of respondents' CA instruments confirmed what they indicated. There was evidence that the respondents did not pay much required attention to competencies when cutting and pasting questions from the previous years' examination question papers. The errors such as those referred to in Figures 4.5 and 4.6 could have been detected and rectified through moderation.

4.3.3.7 Correspondence of Learners' Activity Scores with CA Scores

Question 7: Do the learners' activity scores correspond with those recorded for Continuous Assessment?

The analysis of various documents such as learners' Test Books, Answer Scripts, CA Harvest Sheets and CA Record Sheets, among others, revealed that there was regular record keeping of CA marks from Topic Tests, Topic Tasks, Projects and Investigations into the Harvest and CA sheets, respectively (see Appendices H and I). It seems there is closer monitoring of final CA marks by school managers, HoDs and School Principals with regard to the quantity of assessment activities the learners have done and level of marks (high or low) recorded. This might be attributed to the fact that CA, as part of the end-of-year promotional grade, influences the learners' performance that eventually has a direct impact on overall performance of a school. In this regard, one of the respondents revealed that at times he was instructed by the school principal to manipulate (increase) the marks in anticipation of better school performance in the national examinations. Below is an extract of the conversation during the interview:

T06: *… anyway about my experience what I experience up to now we are still meeting (experiencing) some challenges somewhere somehow because you find you're your supervisor is telling you no this marks this marks are make our learners fail like grade 10 remember grade 10 is called national wide in the radio and everybody want to be there with the name being called so but this is really the challenge because your supervisor you cannot say Okay you cannot tell me to do this because ABCD you might find up yourself sometimes having a difference with your supervisor so exactly I did not observe this one currently at our school but I know it has been happening those years and I usually meet my colleagues there at workshops and somewhere when meet we are all having the same probably problem this is what I look at in the way that a document ….*

Simon: *Sorry to interrupt you now when you say, having differences with your supervisor, what exactly do you mean?*

T06: *Iyaa (yes), differences like you do not want to follow what is perhaps is telling you to do and is like you undermining perhaps you want to fail the school and use you that type of thing, this is the differences that I mean.*

Simon: *Are you saying that the supervisor not in agreement with what you have recorded as the true reflection of what learners did in terms of the scoring of the activities or what exactly is it, because I just want to get that clearly?*

T06: *Iyaa (yes), I do not want to lie to you but it happens like that exactly you get it focused iyaa (yes) that is the truth that perhaps now you recorded there but they will say, oh did you give enough work or how comes that this are low marks, our school is going to fail.*

4.3.3.8 Adherence to Recommended CA Record System and Amount of Tasks

Question 8: Is the recommended Continuous Assessment record system and amount of Continuous Assessment tasks adhered to?

The National CA Policy requires the graded assessment tasks to be carefully planned so that they are fair, valid and reliable. This is so because they determine learners' promotion to the next grade. As indicated earlier, none of the respondents had an assessment plan outlining the selected CA tasks to be graded for summative purposes. As a result, some of the respondents had opted to harvest more CA marks by using various assessment tasks. They then calculated the averages and convert them into the required marks as appears in the CA Record Sheet (Appendix I). However, some respondents revealed that conversion of marks creates some difficulties. One teacher said, "… *they are telling us of two tests that you have to record and sometimes you give more than that so it is difficult is a bit complicated to convert to get the average.…*"

The above portrays an impression that teachers lack confidence in their own calculations or conversion of CA marks in order to comply with the requirements. Some of the respondents were of the view that the prescribed number of assessment activities and their respective marks did not give a true reflection of learners' achievements. Hence they harvested more marks and recorded the average marks.

In the context of the above, the CA Policy makes it clear that there should be a 'selected graded CA'. The Policy explains a selected graded CA as a:

> recorded assessment that contributes to the summative CA promotion grade in each subject. It is described as selected because teachers may grade and record several CA, but only the selected graded assessments are part of the summative CA promotion grade…. the selected graded assessments should be planned and selected at the beginning of the school year (MoE, 1999, p.9).

In comparison with what the CA Policy states, what respondents were doing regarding a number of CA tasks to be recorded for summative purposes constitute a contravention of the provisions of the CA Policy.

The Policy allows teachers to grade and record several CA marks, but the tasks to be part of the summative grade should be planned and already selected at the beginning of the year. Therefore, some of the respondents' arguments that recording a single task does not reflect learners' true achievements might not necessarily be valid. It is very fitting to conclude that the respondents were implementing the CA differently in this regard, since they might have failed to implement and uphold the provisions of the CA Policy, such as to develop a CA plan.

4.3.3.9 Reliability of CA Scores

Question 9: Are the Continuous Assessment scores awarded and recorded reliable?

An attempt was made to verify the reliability of CA marks recorded in the harvest sheets. Grade 10 Mathematics teachers from different schools were requested to re-mark two learners' end-of-term test papers, which had been marked from two different schools; Teacher 1 was the original marker. The results of the marking show that there was inconsistency in the marks awarded by different markers as indicated in Figures 4.7 and 4.8, respectively.

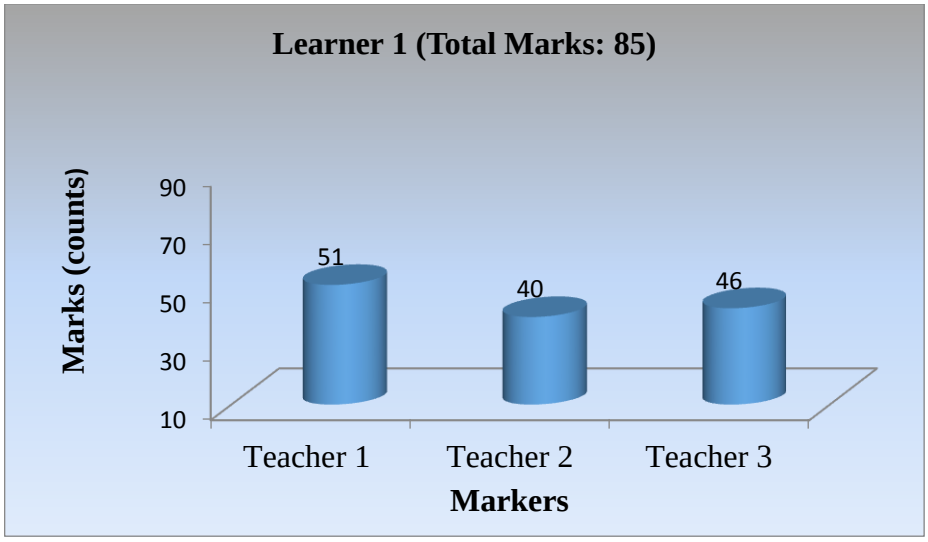


Figure 4.7: Teachers' Marking Results - Learner 1

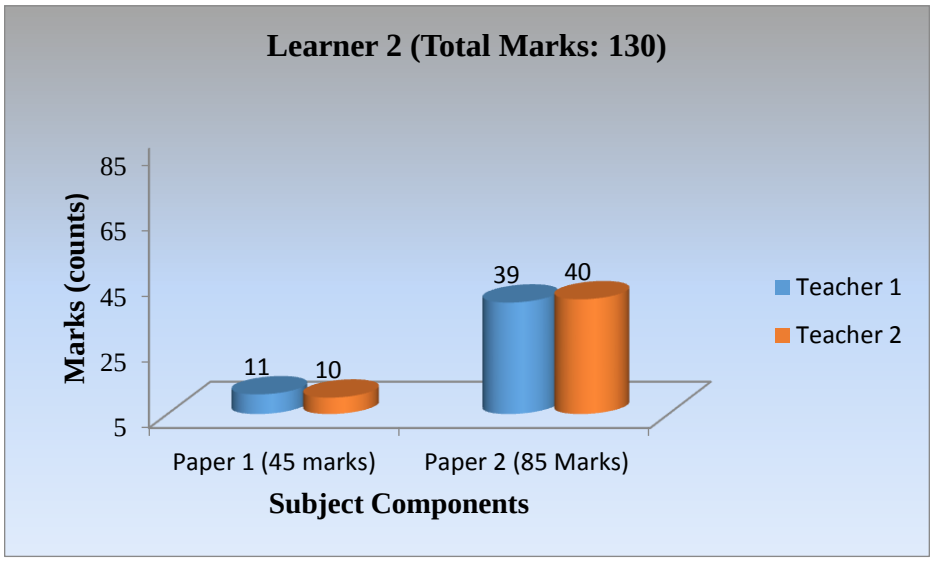


Figure 4.8: Teachers' Marking Results - Learner 2

For Learner 1, there was a difference of eleven (11) mark points between Teacher 1 and Teacher 2, while between Teacher 1 and Teacher 3 there was a difference of five (5) mark points. For Learner 2, a marginal difference of one (1) mark could be observed in Paper 1 and Paper 2 respectively, between Teacher 1 and Teacher 2. The differences in the marks were as a result of incorrect marking between the markers.

The CA Policy states that assessment is reliable if the results are consistent. It further states that "the marks from an assessment are consistent if, for example, two teachers mark the same group of learners' answer scripts and award the same marks" (MoE, 1999, p.5). In light of the above policy statement, the results indicate some differences in the marking process, which might portray unreliable CA marks awarded and recorded for summative purposes.

In a nutshell, the differences noted in the marking between different markers is an indication that the moderation of learners' answer scripts might add value to the quality of marks recorded for CA and summative purposes, respectively.

4.4 Conclusion

This chapter presented and analysed the findings from the quantitative and qualitative data with regard to how teachers implement CA in Grade 10 Mathematics in Oshikoto Region. The quantitative data was presented and analysed within the ambit of two main topics: Teachers' Profiles and CA Planning and Implementation. The Qualitative data from interviews were presented in tabular form and analysed according to teachers' responses to the interview questions. The document analysis data were presented and analysed based on the questions in the document analysis template and the question paper analysis sheet, respectively. The next chapter discusses the quantitative and qualitative findings.

CHAPTER 5: DISCUSSION ON FINDINGS

5.1 Introduction

This chapter presents a detailed discussion of the research findings. The main objective of the study was to explore the implementation of Continuous Assessment (CA) in Grade 10 Mathematics in Oshikoto Region. In fulfilling this goal, the study aimed to establish an understanding of teachers' practices when they implement CA and to find out their experiences and perceptions towards CA. The study further aimed to find out whether the teachers' practices comply with the national assessment norms. Therefore, this discussion aims to put the data into perspective in order to establish the answers to the research questions. Figure 5.1 illustrates the layout of Chapter 5.

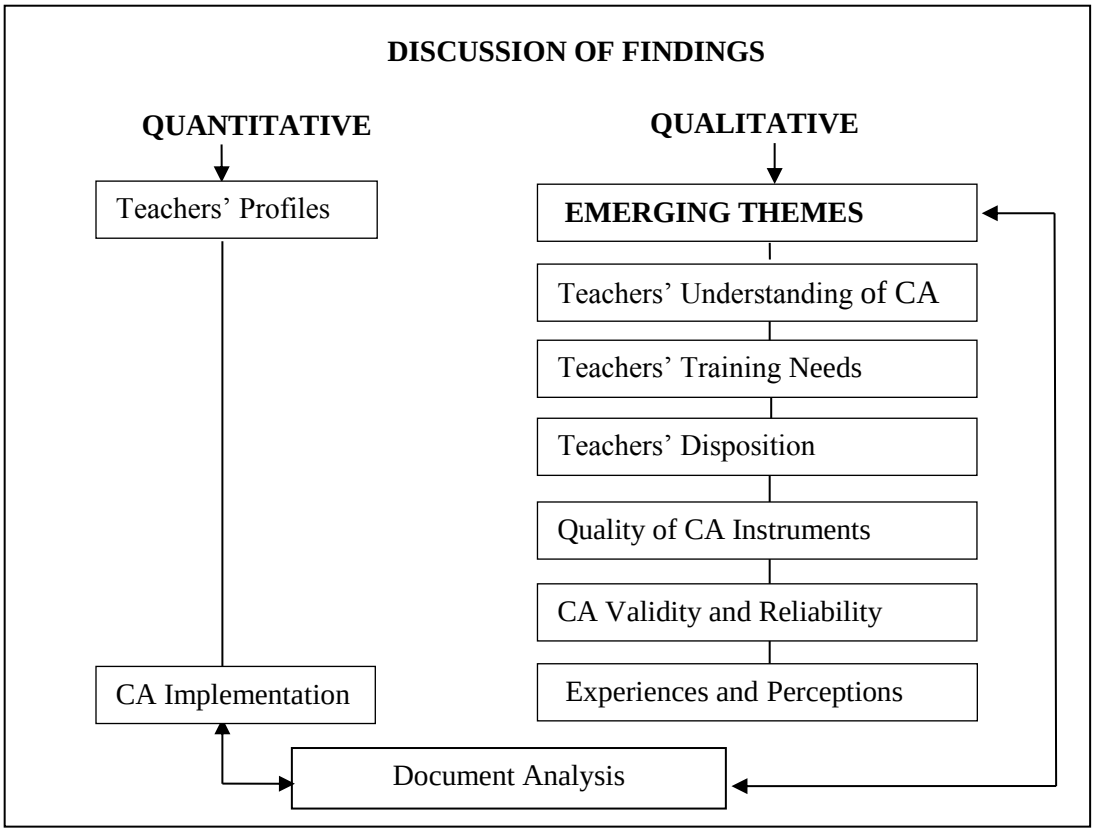


Figure 5.1: Layout of Chapter 5

5.2 Quantitative Data

5.2.1 Teachers' Profiles

The analysis of teachers' qualifications indicates that 50% of the respondents were in possession of a teaching diploma, while another 50% held a degree in Education.

The analysis also indicates that 30% of the respondents had less than three years of teaching experience, 20% had between three and six years of experience, while 50% had over six years of teaching experience. The data shows that the respondents were well qualified and adequately experienced in the teaching of Grade 10 Mathematics. In relation to this finding, Adeyemi (2010) states that teachers' experience and educational qualifications are the prime predictors of learners' academic achievement.

Notwithstanding the teachers' adequate qualifications and experience, there are various factors that adversely influence the implementation of CA in the classroom setting. One of the factors is the class size (Kapambwe, 2010). In relation to the class size, this study found that the participating teachers were administering CA to an average of 47 learners per class. This class size exceeds the teacher-learner ratio of thirty five learners per teacher (1:35) as prescribed in Namibia's National Curriculum for Basic Education (MoE, 2010).

Ihendinihu (2014) states that a large class size makes it difficult for teachers to implement CA. According to Ihendinihu (2014), this implies that the teacher has to reach fewer numbers of learners per class. Ihendinihu further opines that to operate CA effectively, a teacher needs to spend time on each learner – helping and observing them.

This suggests that a teacher has to teach a small number of learners per class to enable him or her to teach, assess and provide feedback on the learners individually. Although the respondents dealt with a class size of 47 learners on average, which is beyond the recommended teacher-learner ratio of 1:35, the respondents did not mention the class size as a concern in relation to the implementation of CA in Grade 10 Mathematics.

In reference to these findings, the researcher argues that although it is critical to have qualified teachers taking charge of the subject (Mathematics), a large average class size such as 47 learners has the potential to discourage teachers from regularly and adequately assessing their learners, given the limited time available to teach and complete the syllabus, and to submit the CA marks timely to the Ministry of Education, Arts and Culture (MoEAC) for the learners' summative grade.

5.2.2 Continuous Assessment Implementation

For effective implementation of CA to take place, the CA Policy directs that teachers should develop a CA plan at the beginning of the year (MoE, 1999). Because of the role that CA plays, such as contributing to the learners' promotional marks to the next grade, the plan helps to ensure that CA is fair, valid and reliable (MoE, 1999). Similarly, Hamukonda (2007), states that CA should be planned and not simply come about incidentally. The study found that none of the respondents had developed a CA plan. This literally means that these respondents were not conversant with the provisions of the CA Policy insofar as how CA ought to be implemented.

The CA Policy, ideally, is to serve and empower teachers by clarifying various assessment policy issues, aiming at creating a better understanding of what CA entails,

and to providing examples of good practice that help teachers design and implement assessment with confidence (MoE, 1999).

However, the study revealed that 70% of the respondents did not have the national CA Policy and had no idea of what it is all about. The two findings, i.e., the absence of a CA plan and the CA Policy among respondents, are interlinked and one determines the other. The CA Policy makes provision for the CA plan to be institutionalised by teachers. The fact that 70% of the respondents did not have the CA Policy impeded the development of the CA plan as the respondents were not conversant with its contents and provisions which stipulate what needs to be done.

The non-possession of the CA Policy among respondents is a testimony that teachers do not have all the necessary information at their disposal to guide and enable them to effectively implement CA. As a result, teachers have devised different ways for conducting CA. These include harvesting marks and recording the averages; sharing information with their colleagues during subject workshops, adopting and implementing what they think works best in their situations and institutions. This way of dealing with CA is detached from the provisions of the CA Policy and might lead to inconsistency in the implementation of CA.

The CA Policy calls for regular and ongoing assessment of learners to ensure regular provision of information regarding learners' achievement (MoE, 1999). In this regard, the study found that 70% of the respondents 'always' (daily) assessed their learners, 20% assessed their learners 'once a week' and 10% indicated that they assessed their learners 'once every two weeks'. In relation to the findings, Marongwe (2012) states that

CA is a vital component of the teaching and learning process, such that one could not be effective in teaching without making use of CA.

Based on the findings, it appears that some respondents had not realised the fundamental role that CA plays in the process of teaching and learning. Assessing the learners once a week or once every two weeks is an indication that such learners' learning defects would pass unnoticed and uncorrected. This is contrary to the view that when teachers know how learners are progressing and where they are experiencing challenges, they can use the information to make necessary instructional adjustments, such as re-teaching, trying alternative instructional approaches or offering more opportunities for practice (Boston, 2002).

Learners' assessment takes two forms, namely, formal and informal assessments. The findings revealed that 50% of the respondents used both formal and informal assessments, while the other 50% only used formal assessment. This result indicates that there seemed to be misapprehensions of formal and informal assessments among the respondents. By nature, informal assessments occur on the spur of the moment as a teacher is presenting a lesson (MoE, 1999). Thus, teaching could hardly take place without the presence of informal assessment.

The Grade 10 Mathematics syllabus directs that Practical Investigations, Projects, Topic Tasks, Written Tests and End-of-Term Tests should be carried out as formal assessments in order to give an overall picture of the learner's knowledge and skills (MoE, 2010). The study found that some respondents did not adhere to this assessment requirement, with specific reference to Practical Investigations and Projects. Thirty percent (30%) of

the respondents indicated that they only used Topic Tasks and Topic Tests as formal assessments without Practical Investigations and Projects.

The respondents indicated that they did not implement Practical Investigations and Projects because firstly, they did not understand the difference between the two assessment tasks, and secondly, they needed training on how to develop and mark the Projects and Practical Investigations. This finding speaks to the CA Policy statement which articulates that majority of Namibian teachers in the school system seem to be hesitant and need assistance and guidance before they will be able to implement CA with confidence (MoE, 1999). Furthermore, the study also found that, in some cases where a Practical Investigation was given, it did not engage learners to apply investigative skills in order to complete the task (see Figure 4.4).

This non-compliance with the assessment requirements as prescribed in the CA Policy and the Syllabus is a clear indication that some teachers lack assessment skills and competencies in Projects and Practical Investigations. This finding is also compatible with that of Marongwe (2012) who found that many teachers were not sufficiently familiar with the CA components as required by the CA Policy and the Mathematics Syllabus. The non-assessment of learners in Projects and Practical Investigations entails that such learners would not be able to develop and acquire the desired skills in the affective and psychomotor assessment domains (Ihendinihu, 2014).

As indicated earlier, 70% of the respondents indicated that they did not have a CA Plan as required by the CA Policy. As a result, the respondents used many different ways to determine what is referred to as ‘Selected Graded CA’ that would contribute to the

learners' summative grade at the end of the year. These different ways include the following: Forty percent (40%) of the respondents pre-determined the assessment tasks from which the marks would be recorded for summative purposes, regardless of the marks a learner obtained in the assessment task. Another 40% indicated that they recorded marks from a number of assessment tasks and eventually recorded the average as opposed to recording marks from a single assessment task. Furthermore, 10% responded that they harvested marks from various tasks and selected at 'random' the required number of tasks to contribute to CA, while another 10% selected the tasks in which the learners would have obtained the 'highest' marks.

These findings indicate that the respondents had, at their own discretion, adopted different ways of dealing with Selected Graded CA. This implies that there is lack of uniformity among teachers with regard to CA implementation. Furthermore, it entails that the CA tasks used in the assessment of learners vary among teachers in quantity and quality. For example, some respondents gave two Topic Tests as prescribed in the syllabus, while some respondents gave more than two Topic Tasks, whereby they calculated and recorded the average.

Equally, the marks allocated to some tasks, for example, Practical Investigation, appeared to be allocated randomly instead of being determined in accordance with the amount of calculations involved (see Appendix E_2). The inconsistency portrayed above is a sign of deviation from the provisions of the CA Policy. It could be attributed to lack of understanding of provisions outlined in the Subject Policy; which directs that the CA components (Topic Tasks, Topic Tests, among others) given to the learners should

conform to the stipulated requirements in order to ensure their similarities across the country (MoE, 2009).

This finding concurs with the statement made by Byabato and Kisamo (2014) who state that lack of uniformity in both the assessment tools used and procedures for CA recording and reporting are some of the serious problems hampering the proper implementation of school based CA.

On the moderation of CA instruments, 70% of the respondents indicated that their assessment instruments were moderated by the Heads of Departments, 10% indicated the School Principals; another 10% said the moderation was done by their colleagues and the remaining 10% said their instruments were not moderated at all. The moderators mentioned conform to the Subject Policy, which states that the roles and functions of the Subject Head, which include planning, monitoring and moderation, can be performed by the Principal, Head of Department and/or Senior Teacher (MoE, 2009).

However, through triangulation, the study found that, at least, the assessment instruments used for learner assessment such as Topic Tests were not always moderated to ensure that they assessed what was prescribed in the syllabus. To this effect, Figures 4.5 and 4.6 attest that the moderation of CA instruments has not been institutionalised in some of the respondents' school structures.

In addition to the moderation of CA instruments, the indications from respondents show that CA was somewhat monitored. In this regard, 40% of the respondents said that CA was "always checked"; another 40% indicated that their CA was monitored "very often", while 20% indicated that their CA was monitored "occasionally". These results confirm

that there exists a discrepancy in the manner in which CA is handled from one school to another with regard to various aspects of CA implementation, including, but not limited to, the quality and validity of CA.

5.3 Qualitative Data

5.3.1 Emerging Themes from Teachers' Responses

Major themes emerged as a result of teachers' responses during the one-on-one interviews. This subsection discusses the themes in order to establish the basis for providing answers to the main research questions which guided this study.

It further aims at establishing common grounds between the two research perspectives in order to strengthen the findings through triangulation.

5.3.1.1 Teachers' understanding of Continuous Assessment

The five teachers who were interviewed seemed to have a fair understanding of what CA is; they mentioned aspects such as assessing learners based on competencies in the syllabus, through formal and informal methods, and assessing learners on continuous basis, among other factors.

In the context of the CA Policy prescription, it is of utmost importance that assessment be linked to the competency prescribed in the syllabus in order to be valid. Although some respondents mentioned that their assessments were based on the competencies in the syllabus, the analysis of some assessment instruments show that there are some instances whereby the questions are not linked to the prescribed competency, such as

those in Figures 4.5 and 4.6. This means that some teachers, although they have the understanding of what CA is, they might not necessarily be doing it practically.

Moreover, CA is also important and is carried out to provide the necessary information to improve the teaching and learning process (MoE, 1999). This means that CA serves as a source of feedback regarding how effective teachers' teaching methods are and how effective the learners are mastering the learning content; which is measured in terms of learners' achievements in various assessment tasks. The teachers' understanding of CA is thus in line with the CA Policy which states that "when both formal and informal assessments are done on a regular and continuous basis they are referred to as CA" (MoE, 1999, p.7). However, the challenge is that the respondents seemed to have had an information-gap regarding what the CA Policy prescribes which should guide the implementation of CA. This includes, among others, having a CA Plan in place, knowing the difference between Projects and Practical Investigations, and other important information regarding CA such as what reliable CA and valid CA are and so on.

5.3.1.2 Teachers' Training Needs on Continuous Assessment

The findings revealed that 60% of the respondents had never received any training on CA. As a result, some respondents found it difficult to construct and competently assess learners in Projects and Practical Investigations. This is evident in Figure 4.4, where a Pythagoras Theorem-based exercise was used as a Practical Investigation which only requires the application of the Theorem without any investigation being done.

It can be established from this result that the learners' skills, particularly in the psychomotor domain such as formal presentation skills, logical presentation skills and logical argumentation skills (MoE, 2010) which are acquired and developed through Projects and Practical Investigations, might not be optimally developed since teachers lack assessment skills in Projects and/or Practical Investigations.

In relation to lack of assessment skills in Projects and Practical Investigations, Awofala and Babajide (2013) state that lack of training on CA, which eventually leads to assessment incompetency among teachers, particularly in the areas of affective and psychomotor domains, contributes to teachers' overdependence on assessing learners' progress in the cognitive domain in a school-based assessment. In the meantime, the assessment of affective and psychomotor domains of learning is neglected. It is therefore evident from the type of Practical Investigation such as the one in Figure 4.4, that the respondents' cry for training in the affective and psychomotor domains is genuine.

5.3.1.3 Teachers' Non-possession of National Assessment Policy Documents

The Ministry of Education (1999) has acknowledged that the majority of Namibian teachers seem to be hesitant and need assistance and guidance before they will be able to implement CA with confidence. This explains why the CA Policy and Information Guide document was put in place to provide the much needed information and create a better understanding of what CA entails and to provide the necessary examples of good practice to help teachers design and implement CA with confidence.

However, this study found that 60% of teachers interviewed were not in possession of the CA Policy, neither were they aware of its existence. This state of affairs could be

attributed to the fact that the national documents, among them the CA Policy, might not have been rigorously institutionalised into the school structures to enable the respondents to access and implement them. Therefore, the non-awareness and/or non-availability of the CA Policy have created an operational gap among teachers regarding the implementation of CA; because they are implementing CA differently and disjointedly from what the policy prescribes. For example, some respondents revealed, among other issues, that they did not have CA plans drawn up at the beginning of the academic year and their CA instruments were not subjected to any kind of moderation to ensure their validity as required by the CA Policy.

Moreover, the above finding seems to portray an understanding that the importance of CA Policy and its availability in the schools' structures have not been rigorously enforced by the relevant authorities in the Ministry of Education, Arts and Culture (MoEAC); hence, its availability is somewhat non-existent among implementers (teachers).

5.3.1.4 Quality of Continuous Assessment Instruments

The study made an attempt to find out whether the quality of assessment instruments used for learners' assessment were moderated at least to ensure that they assessed what they were supposed to assess in line with the Mathematics syllabus. By definition, the researcher understands moderation as a process for checking and reviewing assessment processes, including assessment instruments, to ensure the quality of learning and teaching. Moderation is therefore about making sure that assessment practices are valid,

reliable, fair and consistent, not only for learners but also teachers and other stakeholders.

In this regard, this study found that, at most, the respondents relied on the bank of past national examination question papers as a source of assessment instruments for assessing learners' achievements. In some instances, the study found that the past examination question papers were not used correctly. For example, some questions from past years' examination question papers were used without due consideration of competencies prescribed for the right level.

This happened because some respondents seemed to consider the topics (example, graphs) instead of the basic competencies when they selected the questions. The assessment of learners based on incorrect competencies as appears in Figures 4.5 and 4.6, gives an impression that moderation of assessment instruments was not done. As a result, the learners were required to attempt a question based on the competency that is not prescribed for Mathematics (Core) level.

Furthermore, the instrument used for Practical Investigation as shown in Figure 4.4 would not have been used as a Practical Investigation if the instrument had been moderated. This finding concurs with that of Kellaghan and Greaney (2003), who found that the quality of teachers' assessment practices were deficient in many different ways which include, among others, incorrectly focused questions.

The respondents confirmed that moderation of CA instruments was non-existent in most of their schools, with the exception of Cluster or Circuit-based end-of-term test instruments. This means that the quality of assessment instruments used for CA in some

schools is solely left in the hands of teachers who decide which questions to use in the assessment of certain competencies without a moderator. Handling CA instruments in this manner compromises the quality of assessment instruments and subsequently the credibility of CA marks submitted to MoEAC.

(e) Continuous Assessment Validity and Reliability

Kizlik (2012) defines assessment validity as how well a test measures what it is purported to measure, whereas assessment reliability refers to the degree to which an assessment tool produces stable and consistent results. The analysis of teachers' responses indicates that none of the respondents could differentiate correctly between validity and reliability concepts in association with CA.

The researcher reasons that this could be attributed to the respondents being unfamiliar with the content of the CA Policy in which the concepts such as CA validity and reliability are explained. Some respondents seemed to understand CA validity as that which has to do with accuracy in the marking process actually carried out during the course of the year to produce learners' CA marks.

However, when respondents were asked to explain what they understood by CA validity, the majority could link assessment to the basic competencies. But, the analysis of assessment instruments revealed some instances where the questions in the assessment tasks were not linked to the competency of the appropriate subject level as outlined in the syllabus (see Appendices F_1, F_2 and F_3). This clearly demonstrates that the respondents did not always strike a balance between what they understood in theory and what they did in practice.

Furthermore, the re-marking of two different learners' answer scripts revealed some big to marginal differences in some of the respondents' marking (see Figures 4.7 and 4.8). Some of the findings from interviews and document analysis confirmed that CA marks collected for learners' summative grade might not have been reliable due to marking and lack of moderation of CA instruments as some respondents have indicated.

5.3.1.5 Teachers' Experiences and Perceptions towards CA

This study sought to understand the respondents' perceptions and experiences towards CA in their respective schools. The majority (60%) of the respondents were of the view that CA is important as it helps learners to attain and retain information through doing assessment tasks. It also provides information regarding the learners' progress and achievements. In addition, the respondents felt that CA provided them with information that informed their teaching and what topic(s) required more attention and remediation.

The above view point is similar to that of Marongwe (2012), who found that 70% of the teachers and principals were of the view that CA helped them to check learners' work in order to find ways of helping them to improve by modifying teaching and learning methods.

Contrary to the perceived importance of CA, 40% of the respondents were of the opinion that CA should not be part of the summative promotional grade. This view was informed by the perception that the CA implementation process is subjective in nature. Some respondents opined that different teachers use different assessment tasks in their schools with regard to the topics assessed, quality of assessment instruments, marking, and

marks allocated. Therefore, some respondents perceived such differences as being unfair for CA to be part of the learners' summative promotional grade.

The CA Policy acknowledges that CA lacks comparability across classes, schools, regions and nations because of school and teacher differences (MoE, 1999). However, the respondents' view that CA should not be part of the learners' summative promotional grade appears to be one-sided because CA allows, in a classroom environment, for assessment of performance-based activities which are difficult to assess in an examination. By so doing, CA provides more assessment opportunities and the use of more assessment methods, creating opportunities for a variety of learners to demonstrate their mastery of learning objectives. Hence, the marks from such performance-based activities need to be accounted for as part of learners' summative grade.

Furthermore, some respondents experienced some occurrences of manipulation of CA marks in some schools. According to respondent T06, the manipulation of learners' CA marks was done on the instruction of school managers (School Principals) in an attempt to influence (improve) the school performance in national examinations. These disparities between CA and national examination marks (see Tables 1.1 and 1.2 respectively) have caused the DNEA to institute the statistical moderation (as explained under Subsection 2.2.4) on CA marks from all Grade 10 schools across Namibia to ensure comparability between the CA and national examination marks.

In accordance with the above revelation regarding the manipulation of CA, it appears that the difference between the CA and national examination marks cannot only be

attributed to teacher and school differences alone as stated in the CA Policy, but also to the deliberate manipulation of learners' CA marks in anticipation for improved school performance in the national examination. Moreover, it further appears that there is a misconception among some school principals that if learners have high CA marks, then they stand a good chance to succeed in the national examination when the two marks are combined. This misconception might, however, be attributed to the fact that some school principals do not have the correct understanding of how CA and national examination complement each other.

5.3.2 Discussion of Findings Obtained from Document Analysis

This section discusses data emanating from document analysis. As stated earlier, one of the main reasons for carrying out a documents analysis was to validate and cross-check the data obtained from other research instruments used in this study.

The National Subject Policy requires teachers to be in possession of the subject syllabus and the CA Policy, among other documents in their resource files (MoE, 2009). The analysis of documents revealed that all five teachers had a correct version of the subject syllabus. However, out of three teachers who initially indicated that they had the CA Policy, only one teacher was found in possession of the CA Policy. This finding concurs with the outcome of the interview in which the majority (60%) of the respondents indicated that they did not have the CA Policy.

Based on these findings, it became vividly clear that one of the possible reasons why teachers are experiencing difficulties in implementing CA with due confidence could be that the CA Policy might not have been institutionalised into the school structure.

Unfortunately, this was not verified with School Managers because they were not sampled to participate in this study.

Notwithstanding the fact that all teachers interviewed have the correct version of the Mathematics Syllabus, the participants have indicated that they had not drawn up a CA plan as directed in the CA Policy and Syllabus. As much as CA is an important component of learner assessment, it seems that the respondents had no thorough content knowledge of the syllabus, particularly the assessment section. This became evident when respondents indicated that they were not aware of the directive in the syllabus which requires them to plan and programme their CA at the beginning of the year: "Continuous Assessment should be planned and programmed at the beginning of the year, and kept as simple as possible" (MoE, 2010, p.24).

The document analysis further revealed that the respondents regularly assessed their learners and regularly marked the assessment tasks. However, the types of CA used were dominantly of a cognitive nature, with little to no affective and psychomotor domains being assessed. It appears to be a common trend in assessment that the cognitive domain is more dominantly assessed than other domains. Reeves (2006) also found that most of the instruction in education at different institutional levels focused more on the cognitive domain rather than the affective or psychomotor domain.

This might be attributed to the fact that some teachers, as the majority of respondents indicated during the interviews, were not conversant with assessment tasks such as Projects and Practical Investigation.

The analysis of documents (Topic Tests question papers and End-of-Term Test question papers, among others) revealed some invalidity associated with the CA instruments used for learners' CA. As indicated earlier, the teachers who were interviewed could not differentiate between validity and reliability of CA. In the researcher's view, it is important for a teacher to, first and foremost, understand in theory the meaning of valid and reliable CA for him or her to be able to implement valid and reliable CA.

In this regard, the study found incidents of assessment questions meant for Additional Mathematics level used to assess learners doing the Mathematics (Core) level. Therefore, it is logical to argue that if an assessor (teacher) does not know what validity entails, then it would almost be impossible to ensure the validity of the assessment instruments. Furthermore and based on the CA Policy, the assessment instrument would be valid if and only if the questions are linked to the prescribed competencies for a specific grade and level.

Additionally, the analysis of assessment instruments also found that past years' question papers are mostly used as opposed to teachers writing up or developing their own instruments. To use past examination question papers and/or part thereof has some repercussions on the validity of marks generated for CA.

This is because such question papers are easily found in the public domain; which makes it easier for learners to access from their classmates and family members. This means that learners have prior access to some questions, such that when the same questions are used in the tests, learners simply reproduce the answers.

Therefore, "CA contributes to the end-of-year promotion grade and, as such, should be reliable and valid so that all learners have an opportunity to show their true mastery of the syllabus' objectives and competencies" (MoE, 1999, p.8).

5.4 Conclusion

It is evident from quantitative and qualitative data that CA in Grade 10 Mathematics in Oshikoto Education Region is characterised by many factors such as those mentioned in Chapter 4. It seems that CA is implemented differently from one school to another. This study has clearly shown that teachers have limited information, particularly with regard to CA. Moreover, teachers have different understanding, practices and perceptions towards CA and this is possibly due to lack of information and training in CA.

Furthermore, the results of the study in relation to the CIPP Model appear to indicate that the *Context* in which CA is implemented is affected by various *Input* aspects, such as lack of teacher training and lack of institutionalisation of policy documents in schools. The *Process* is also not spared, as there are incidences of manipulation of CA marks in anticipation of favourable performance for learners in certain schools. Furthermore, the process is also influenced by lack of uniformity among schools. Therefore, the *Product* of CA process such as the validity and reliability of CA marks in some schools is compromised. The results of this study therefore, fit-in well with adopted model and support it without further improvements. The next and final chapter answers the main and sub-questions which guided this study and make recommendations.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

In this chapter, the findings of the study are clustered together in an attempt to answer the research questions. The chapter starts by highlighting the purpose of the study, giving a contextual representation of the research questions leading to the summary of the research findings. It further highlights the limitations of the study preceding the implications of the study findings, general observations across the schools which participated in the study and recommendations for practice and further research. The chapter concludes by highlighting the issues which possibly contributed to the factors influencing the implementation of CA in the schools that participated in the study.

6.2 The Study Objectives

The purpose of the study was to explore the implementation of CA in Oshikoto Education Region with a view to understanding their CA practices and challenges in order to provide the relevant authorities, particularly the Ministry of Education, Arts and Culture, with evidence-based information in an attempt to formulate the necessary interventions. This was necessitated by the discrepancy trends observed over time between the national examination marks and CA marks compiled by Grade 10 schools across the country to form part of the learners' summative promotional grade. The said discrepancies led the Directorate of National Examinations and Assessment (DNEA) to statistically moderate the CA marks to ensure that the national standard is maintained.

In pursuing the study objectives, the researcher used various instruments to provide necessary information. These included the teachers' questionnaire, interviewing teachers and analysing their assessment records and instruments. The study was guided by one main question and four sub-questions as outlined in Figure 6.1. The findings of the research study are presented in four parts based on the sub-questions in order to answer the main question:

Are CA procedures in Grade 10 Mathematics being implemented in line with the provisions of the national assessment documents: National Continuous Assessment Policy and Information Guide, Subject Policy and Grade 10 Mathematics Syllabus in the selected schools in Oshikoto Education Region?

The following schematic representation puts the research questions of the study in context.

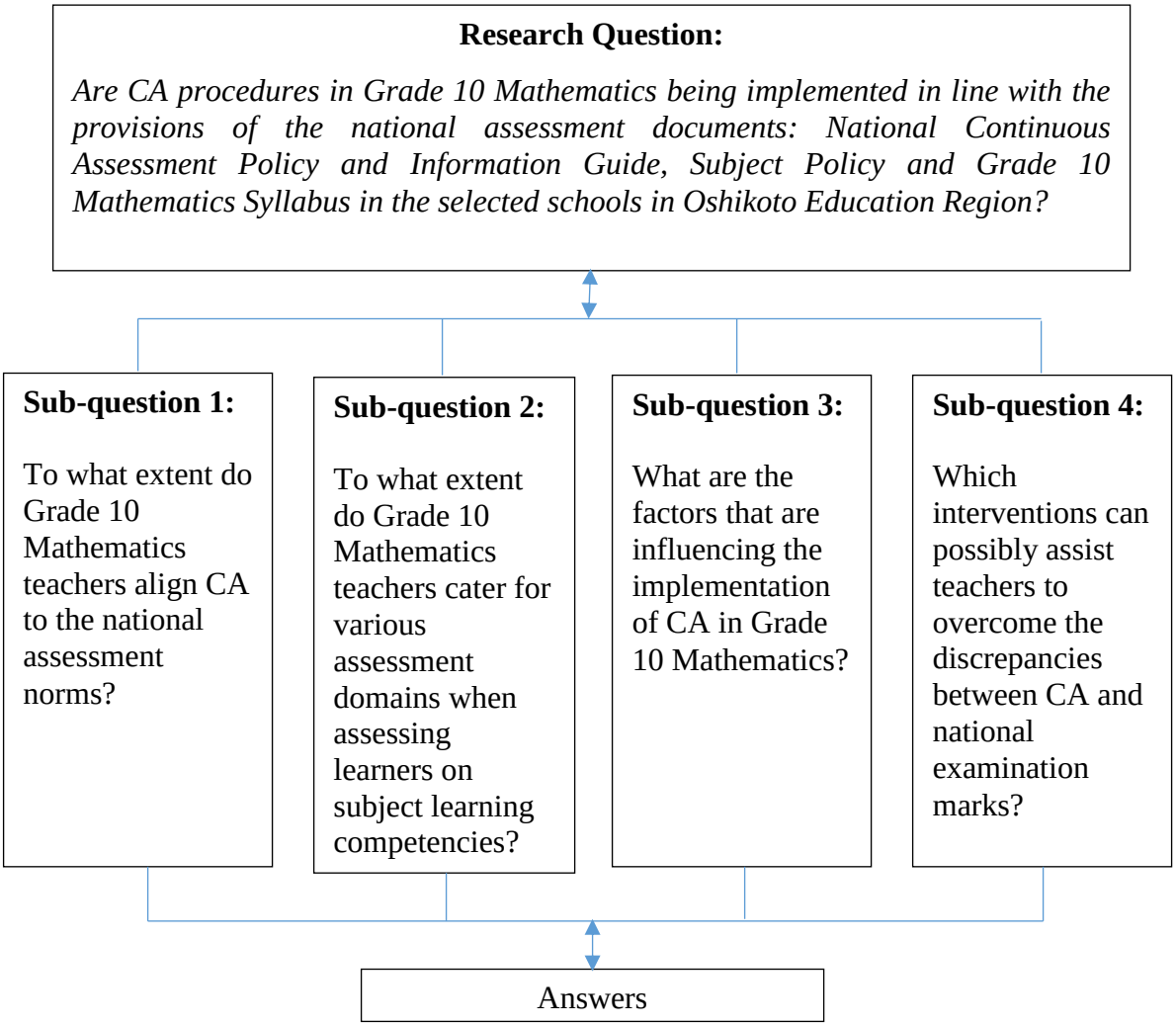


Figure 6.1: Schematic Representation of Research Questions

6.3 Summary of Findings

During the data collection process, the study assessed the extent to which national documents which ought to inform and regulate the implementation of CA were available in selected schools. It further engaged respondents as CA implementers to ascertain their understanding of CA and how they implemented CA; their perceptions towards CA and challenges they experienced as they dealt with the CA implementation process. Furthermore, the study undertook to peruse various records and documents as evidence of the activities done in pursuance of CA implementation.

The study revealed that the majority of respondents were neither in possession of some of the prescribed documents which direct and regulate the implementation of CA, nor aware of the contents and directives. These included the CA Policy and Subject Policy documents. The study also found that the majority of the respondents were not conversant with all types of CA, particularly the development and marking of Projects and Practical Investigations.

Moreover, the study revealed incidences of non-compliance with the learning competencies prescribed in the syllabus; manipulation of CA marks and unreliable marks as a result of the marking process. The study further discovered that there was lack of uniformity in selection of recorded marks to contribute to learners' summative promotional grade. The study also noted some dissatisfaction among respondents towards CA being a contributor to learners' promotional grade; due to poor quality of CA activities done. Adding to the list of findings is lack of uniformity among schools, as well as lack of training and support on CA among implementers.

6.4 Findings in Relation to Research Questions

The following is a clustering of the study findings in response to the research questions:

Question 1: To what extent do Grade 10 Mathematics teachers align CA to the national assessment norms?

The findings regarding this question were derived from the questionnaires and further consolidated with same from the document analysis as a way of triangulation. Gay et al. (2009, p.608) define triangulation as "the use of multiple methods, data collection

strategies and data sources to get a more complete picture of what is being studied and to cross-check information".

The study found that majority of respondents did not have the CA Policy nor had the knowledge of its content and provisions which ought to regulate and facilitate the implementation of CA. In this regard, the study revealed that none of the participants had the required CA plan. However, the majority of the respondents regularly assessed their learners as required by the CA Policy. Furthermore, the study also found that not all respondents were conversant in all types of CA prescribed in the syllabus as only 70% of the respondents conducted all types of CA. The respondents were experiencing challenges with the development and marking of Projects and Practical Investigations.

Nonetheless, a closer analysis of the assessment instruments revealed that some of the instruments that were used were not valid as required by the CA Policy. Some of the questions were based on the competency prescribed for Additional Mathematics (Extended) as opposed to the Mathematics (Core) level. In the same vein, the study found that little to no attention was given to competencies, so much so that the assessment task(s) given did not comply with the competencies outlined for the right mathematical level in the syllabus.

Additionally, the study also found that the marks allocated in some of the assessment components (papers) were not reliable due to marking differences. The selection of the CA marks for summative purposes was not uniform across the schools which participated in the study. It could therefore be concluded that some teachers' CA does not fully comply with the national assessment norms.

Question 2: To what extent do Grade 10 Mathematics teachers cater for various assessment domains when assessing learners on subject learning competencies?

The findings in response to this question were mainly drawn from the document analysis and teachers' interviews. The study found no clear evidence to particularly substantiate that the distribution of various levels of cognitive complexity across the assessment instrument(s) receives the due consideration when the assessment instrument is being developed. Because the analysis of assessment instruments revealed that content validity is somewhat ignored during the selection of the assessment question(s) from past examination question papers. The requirement or demand of competency determines the cognitive level required. The syllabus stipulates, with reference to the assessment objectives (level of complexity) for CA, that the distribution of assessment objectives should be as follows:

- Objective A (basic knowledge and technical skills – 20%),
- Objective B (analysis, abstraction and synthesis skills – 60%) and
- Objective C (presentation skills – 20%).

In this regard, the analysis of instruments used for the End-of-Term Tests revealed that over 80% of the questions in the papers required high cognitive skills (analysing, abstraction and synthesising skills) contrary to the required 60%. Moreover, the analysis also revealed that it seems the participants' selection of assessment items/questions was influenced by what they felt comfortable to mark, rather than what level of complexity the question was demanding. It could therefore be concluded from the findings that some teachers do not duly strike a balance between various cognitive levels in their CA.

Question 3: What are the factors that are influencing the implementation of CA in Grade 10 Mathematics?

The study found, through interaction with respondents and the analysis of documents, that the implementation of CA in the schools which participated in the study was influenced by many factors such as the following:

a) Unavailability of supporting documents such as CA Policy and Subject Policy.
b) Lack of training and support on CA and its implementation among the respondents.
c) Lack of consistency in the interpretation and application of CA guidelines.
d) Negligence of syllabus provisions, such as competencies to be assessed.
e) Deliberate manipulation of CA marks in an attempt to foster better school performance in the national examination.
f) Lack of vigorous monitoring and supervision of CA activities leading to invalid and unreliable CA.

Question 4: Which interventions can possibly assist teachers to overcome the discrepancies between CA and national examination marks?

There is a need for the concerned directorates: National Institute for Educational Development (NIED), Directorate of National Examinations and Assessment (DNEA) and Directorate of Programme Quality Assurance (PQA) of the Ministry of Education, Arts and Culture as custodians of the curriculum and material development and training; national assessment and quality assurance respectively, to embark on a national training of teachers on syllabus interpretation, best assessment practices and quality assurance at

different levels (regional, circuit or cluster). The training intervention might help to respond to the teachers' needs in overcoming the challenges that have been highlighted in this research study.

6.5 Limitations

Due to the sample and sampling methods undertaken for this study, the findings of the study cannot be generalized to other Grade 10 schools in the regions across the country, nor can they be generalized to the rest of the schools in Oshikoto Education Region in which the study was conducted. Rather, they are restricted to the schools and teachers that participated.

Furthermore, some participants who were interviewed had difficulties in expressing themselves fluently in English. As a result, this might have affected the collection of qualitative data. In this regard though, clarity has been sought in some instances to ensure data accuracy.

6.6 Implications of the Research Findings

The study has revealed many issues which need to be addressed if CA implementation is to be improved and strengthened. In particular, the institutionalisation of the documents (CA Policy, Subject Policy) and their provisions into the school structures need to be reinforced. Furthermore, the study has found that CA implementation in the schools that participated is characterised by lack of uniformity and the assessment instruments used vary in terms of content validity and quality. Therefore, the statistical moderation of summative CA marks by the DNEA would rather continue for fairness and quality

reasons, pending interventions aimed at addressing the factors that influence the effective implementation of CA in schools.

6.7 General Observations across the Schools

This study was an enriching experience which provided many opportunities for learning across various schools. During this exercise, the researcher observed that the manner in which CA was being implemented differs vastly across the schools that participated.

Firstly, it was observed that the assessment instruments used, such as those for Topic Tests, generally comprised few questions with allocation of marks which were not commensurate with the demand of the questions. In other words, the questions did not engage the candidate to demonstrate much knowledge and skills in order to earn the allocated marks; instead, basic information was required and many unwarranted marks were given. This practice creates a false impression that candidates have achieved and mastered the competencies well, while the assessment instrument has not addressed all required aspects of the competency as a whole. As a result, unduly high marks are recorded to contribute to CA for summative purposes.

Secondly, the researcher observed that learners' CA marks were not promptly recorded upon the completion of marking. Rather, learners would be summoned to submit their books or test papers at a later stage for marks to be recorded and/or transferred to the CA sheet. This practice has seen some learners who could not locate their test books or any of the test papers losing out on their CA marks or being given fabricated marks.

6.8 Recommendations

In order to address the factors which adversely influence CA and improve its implementation, the researcher recommends the following course of action:

a) There is a need for the MoEAC to run more intensive seminars and workshops to build and strengthen teachers' capacities on the appropriate principles of CA and its implementation.
b) There is a need for the MoEAC to put in place a CA manual to guide and assist teachers to implement quality CA.
c) There is a need for CA implementation procedures to be standardised to ensure uniformity and comparability across schools.
d) There is need for CA – tests and projects to be centralized and distributed to all schools from the Ministry of Education, Arts and Culture so that variation of CA marks is reduced and makes moderation easier.
e) There is a need for the MoEAC, through designated directorate(s), to intensify the accessibility of the CA Policy and advocate more on its implementation, monitoring and evaluation for improved CA outcomes.
f) Finally, there is a serious need for the teacher-training institutions, particularly the Faculty of Education at the University of Namibia, to strengthen student training in the assessment and evaluation course offered to third year students to ensure that they are fully empowered before they commence their teaching career.

Opportunities to train teachers in the correct use and application of CA must be found. Ideally the Centre for Professional Development, Teaching and Learning Improvement (CPDTLI) at the University of Namibia could assist the MoEAC in this regard. It is the researcher's strong conviction that teacher empowerment through CPDTLI would greatly improve the implementation of CA in schools.

6.9 Recommendations for Further Research

Since the study was confined to a small number of schools in Oshikoto Education Region, it would be worthwhile to find out how CA is being implemented in other schools across the country, particularly with reference to and emphasis on teachers' interpretation and application of assessment objectives in relation to the competencies prescribed in the Grade 10 Mathematics Syllabus.

6.10 Concluding Remarks

The importance of teaching and learning cannot be overemphasised in any society. However, effective teaching also includes assessment strategies. This study has successfully been undertaken to explore the implementation of CA in Oshikoto Educational Region. It has revealed that implementation of CA is influenced by various factors which emanate from teachers' interpretation of assessment guidelines, adopted school-based assessment practices and lack of assessment-related information. The study has concluded that the implementation of CA in the selected schools is not fully being implemented in accordance with the national assessment norms. Also, participants as implementers do not follow the same CA practices. The study further concludes that CA implementation in its totality has not adequately been receiving the attention it deserves

from the national and regional levels in terms of guidance and capacity building given the crucial role it (CA) plays in the assessment of candidates.

CA plays a major role within the ambit of learner assessment. For that reason, it requires thorough training, understanding and commitment from the implementers to ensure its successful implementation. The implementers require on-going support and guidance to effectively manage the dynamics of learner assessment in order to enhance the teaching and learning; improve learners' abilities and achievements through quality assessment.

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Appendix A: Questionnaire for Teachers

QUESTIONNAIRE FOR GRADE 10 MATHEMATICS TEACHERS ON IMPLEMENTATION OF CONTINOUS ASSESSMENT

Dear Participant,

This study is an attempt to investigate the extent to which continuous assessment (CA) is being implemented in Grade 10 Mathematics and to solicit factors that influence the implementation of CA in the same grade and subject. Please kindly respond to the questions and statements as completely and honestly as you can. Your cooperation and contribution towards this study will be highly appreciated. All information provided herein will entirely and strictly be kept confidential. (**Do not write your name on this questionnaire)**

A. General information

(Insert ✓ in the box of your choice)

1. Gender: *Male* ☐ *Female* ☐

2. What is your highest teaching qualification? *Diploma* ☐ *Degree* ☐

3. Is Mathematics your subject of specialisation? *Yes* ☐ *No* ☐

4. For how long have you been a Mathematics teacher at Grade 10 level at this school?

   (a*) 0-3 years* ☐ (b) *3-6 years* ☐ (c) *Over 6 years* ☐

5. How many Grade 10 Mathematics learners do you teach in total? _____ learners

B. Continuous assessment planning and implementation

(Insert ✓ in the box of your choice)

1. Are you in possession of the following documents?

   (a) CA policy and information guide? *Yes* ☐ *No* ☐

   (b) Mathematics syllabus (Version 2010*)* *Yes* ☐ *No* ☐

2. Do you have an operational CA plan in place? *Yes* ☐ *No* ☐

3. How often do you conduct CA in a school term?

   (a) once a week ☐

(b) once in two week ☐

(c) once a month ☐

(d) once a term ☐

4. What form of CA do you use to assess your learners?

(a) Formal continuous assessment ☐

(b) Informal continuous assessment ☐

(c) All above ☐

5. Which of the following assessment tasks do you normally give your learners?

(a) Investigations ☐

(b) Projects ☐

(c) Topic tasks ☐

(d) Topic tests ☐

(e) All above ☐

6. What determines which CA activity's scores should be recorded to be part of learners' summative promotional grade?

(a) The highest score a learner scored in an activity. ☐

(b) Learner's assessment activity which was pre-determined to be recorded irrespective of learner's obtained score. ☐

(c) Assessment activity scores to be recorded for each learner are chosen at random. ☐

(d) Assessment activity in which all learners have scored high marks. ☐

(e) Assessment activity which learners have done in group. ☐

(f) Other (specify) _____ ☐

7. Who moderate your CA tools before learners do the assessment activity?

(a) Subject head ☐

(b) Head of Department ☐

(c) Principal ☐

(d) Mathematics Facilitator(s) ☐

(e) Other (specify) _____ ☐

8. How often is the monitoring of your CA scores conducted?

(a) Always ☐

(b) Very often ☐

(c) Sometimes ☐

(d) Rarely ☐

(e) Never ☐

9. What factors, in your view and experience influence (either enhance or hamper) the implementation of CA in Grade 10 Mathematics?

_____

_____

_____

_____

_____

_____

_____

_____

Thank you very much for your time and assistance.

Appendix B: Interview guide for Grade 10 Mathematics teachers

Interview guide for Grade 10 Mathematics teachers

Dear Participants

This interview seeks to obtain your insights and perceptions and experiences about Continuous Assessment as an implementer. It further provides me with an opportunity to get deeper information and follow up on some of the responses you provided in the questionnaire you have completed in the first phase of this research study. Thank you for granting me this audience with you. May I have your permission to audio-record our conversation for further reference during the compile of my report?

1. Can you briefly explain to me what you understand by Continuous assessment?

2. Have you ever received any training where continuous assessment and its implementation have been discussed? Who provided the training? Was the training adequate/ met your expectations?

3. Should you need training on continuous assessment, what specific issues would like to be addressed?

4. Can you explain to me how continuous assessment is structured in Grade 10 Mathematics at this school?

5. Based on your experience, do you think continuous assessment is important and why do you think so?

6. How helpful is the Grade 10 Mathematics syllabus in terms of guiding you on the following:
   (a) Developing tasks/activity for continuous assessment?
   (b) Grading tasks/activity for continuous assessment?
   (c) Recording marks for continuous assessment?

7. How helpful is "*Towards improving continuous assessment policy and information guide*" in the context of continuous assessment administration?
8. What guiding instruments, other than the syllabus, do you have in place to ensure the quality of continuous assessment tasks/activities?

9. Is there any monitoring done in Grade 10 Mathematics to ensure adherence to national norms regulating the implementation of continuous assessment?
10. Based on your experience, do you think that there are shortcomings within the process of continuous assessment implementation, both in the national documents (syllabus and policy) and in practice and what are they?

Thank you so much for your time and patience!

Appendix C: Document analysis sheet

Document Analysis Sheet

	YES	NO
1. Is CA policy and subject syllabus available?	☐	☐
2. Is CA plan in place and followed?	☐	☐
3. Are CA activities (Tests, Tasks, Projects, etc.) regularly given and marked?	☐	☐
4. Do the questions based on/assess basic competencies (*validity*)?	☐	☐
5. Do the questions in the CA tools strike the balance between various cognitive levels (Objectives A & B, linked to Appendix D)?	☐	☐
6. Is the moderation system of CA tools in place and followed?	☐	☐
7. Do the learner's activity scores correspond with those recorded for CA?	☐	☐
8. Is the recommended CA record system and amount of CA tasks adhered to?	☐	☐
10. Are the CA scores awarded and recorded reliable? (*Various markers to mark*)	☐	☐

Findings:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Appendix D: Question Paper Analysis Sheet

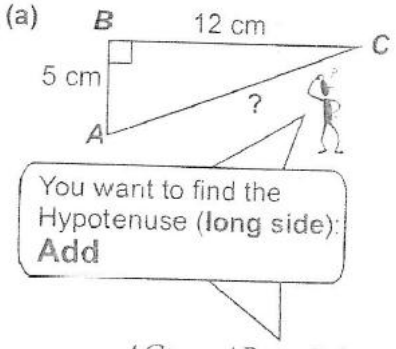
Paper 1&2 (End of Term Test: April 2014): Maths Grade 10

Questions	**Assessment Domains/Objectives**		**Comment**
	A (Basic Knowledge & Skills) **Marks**	**B** (Analyse, Abstraction & Synthesising Skills) **Marks**	
Total Marks Per Objective (count)			
Total Marks Per Objective (%)			

Appendix E_1: Practical Investigation Instrument

Eg: Find **(a)** side AC and **(b)** side BC.

(a)



$AC^2 = AB^2 + BC^2$

$AC^2 = (5)^2 + (12)^2$

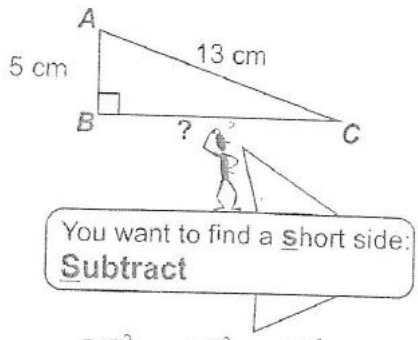
$AC^2 = 25 + 144$

$AC^2 = 169$

$AC = \sqrt{169}$

$AC = 13$

(b)



$BC^2 = AC^2 - AB^2$

$BC^2 = (13)^2 - (5)^2$

$BC^2 = 169 - 25$

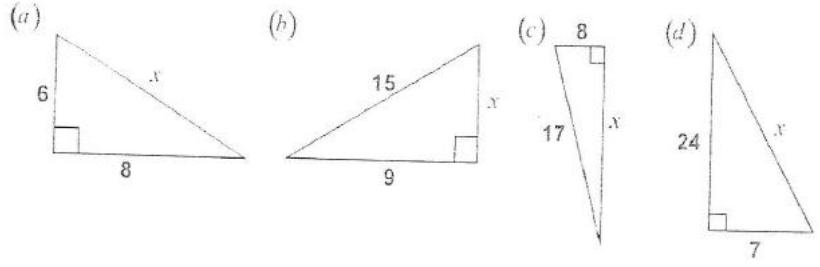
$BC^2 = 144$

$BC = \sqrt{144}$

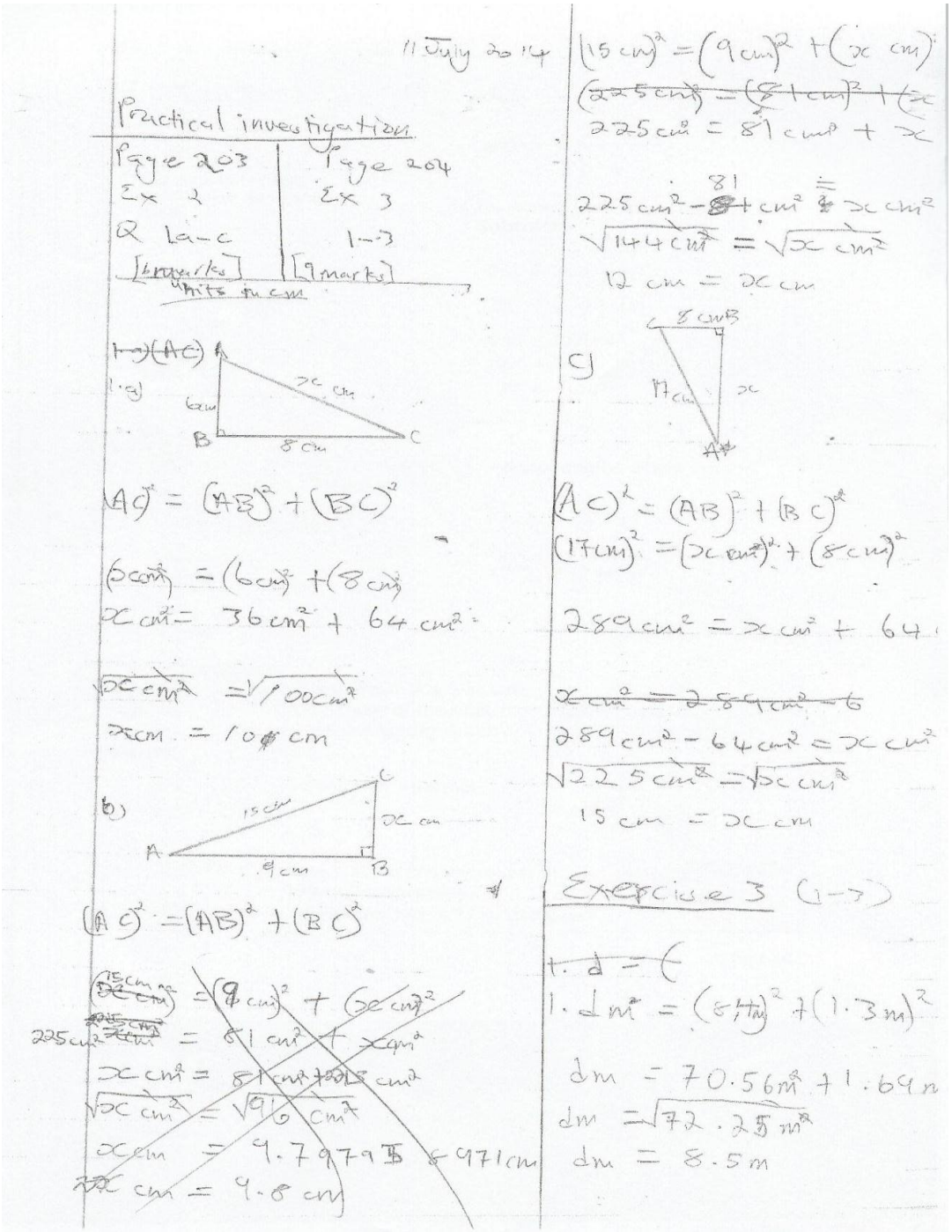
$AC = 12$

Exercise 2:

1. Find the length of the side marked x. All the lengths are in cm. Answers to 2 decimal places.



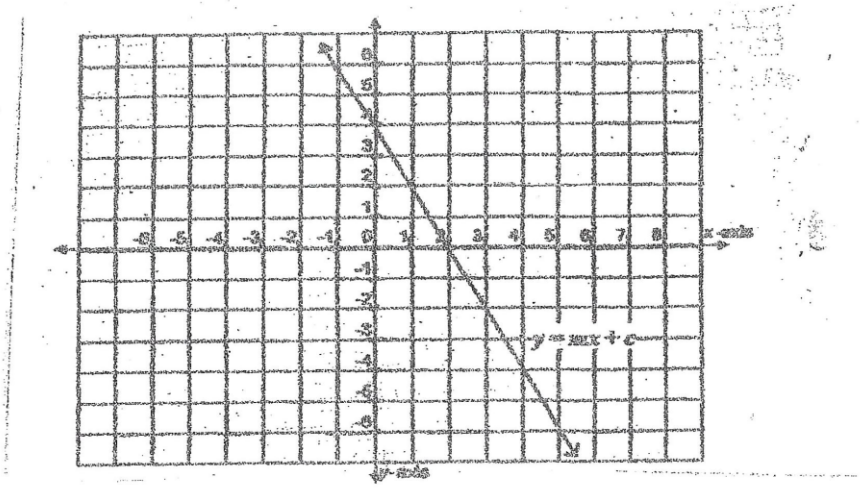
Appendix E_2: Practical Investigation Memorandum



Appendix F_1: Test Instrument 1

Mathematics Test
Grade 10
Topic: Graphs [07-03-2014]

On the grid below is a graph of $y = mx + c$



a) Use the graph and answer the following:

(i) What is the value of c

Answer(a)(i).....[1]

(ii) Find the gradient of the graph.

Answer(a)(ii) .....[3]

(iii) Write down the equation of the graph, giving the values for m and c

Answer(a)(iii).....[2]

b) (i) Complete the following table for straight line $y = X - 2$, by finding the value of M and N.

X	-3	0	2	N	5
Y	-5	M	0	1	3

Answer (b) M = ..., N =.....[2]

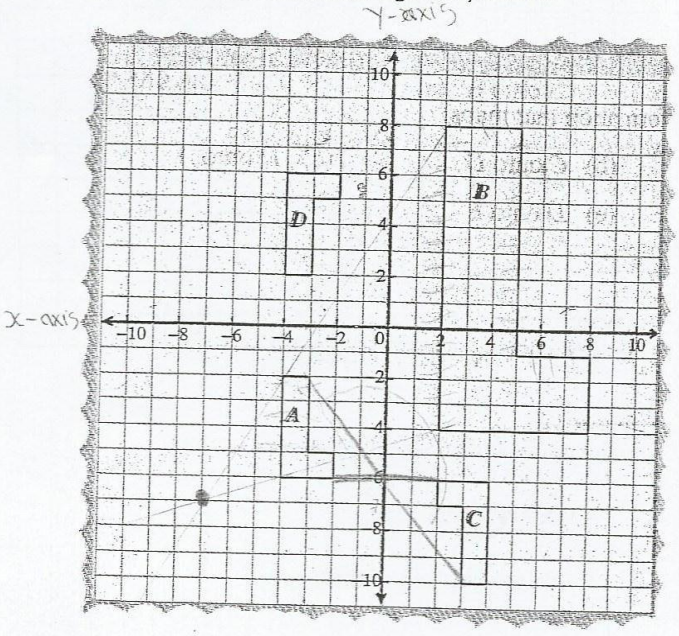
(ii) Draw the graph of $y = X - 2$ on the same grid above. [3]

Appendix F_2: Test Instrument 2

MATHEMATICS TEST TRANSFORMATION AND GRAPH 02/07/2014

NAME [redacted] MARKS; 20

1. Figure A is transformed onto figures B, C and D.



a. Describe fully the transformation which maps A onto D.

Type Reflection [1]

Through x = axis [1]

b. Figure A is rotated onto C. give the angle and centre of rotation.

Angle 180° [1]

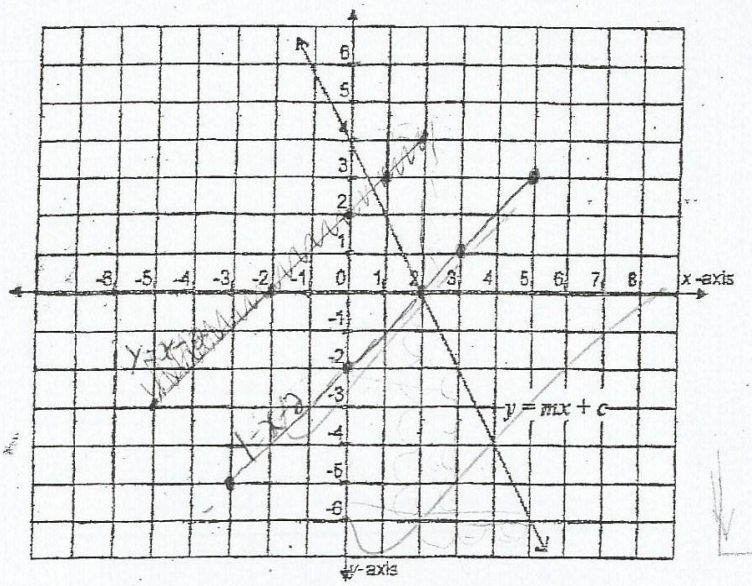
Centre 0, -6 [1]

c. Figure B is an enlargement of A. Write down the scale factor and centre of enlargement.

Scale factor $\frac{1}{3}$ [1]

Centre -7, -7 [1]

2. On the grid below is a graph of y = mx + c



a. Use the graph and answer the following.

i. What is the value of c?

Answer.....4.....[1]

ii. Find the gradient of the grapy.

Answer.....-2.....[2]

iii. Write down the equation of the graph, giving the value for m and c.

Answer: Y = ...2X + 4.....[2]

b.

Appendix F_3: Extract of the Syllabus

10.3. Learning Content: Grade 10

The parts in italics are for the Additional Mathematics syllabus only.

THEMES AND TOPICS	LEARNING OBJECTIVES Learners will:	BASIC COMPETENTCIES Learners should be able to:
1. Numbers		**solve problems involving direct and indirect proportion**
(a) Calculator skills	• be able to use the more advanced functions of the scientific calculator	• use the calculator to represent numbers in standard form • translate the calculator display of standard form into the appropriate written notation • find the values of trigonometric functions for given angles and find the angle if the value of the trigonometric function is given
(b) Standard form	• understand the principle of expressing numbers in standard form	• write very small numbers in standard form and vice versa • *perform the four basic operations on simple expressions written in standard form*
(c) Proportion	• understand the idea of direct and indirect proportion • know how to use direct and indirect proportion to solve everyday problems	• solve problems involving direct and indirect proportion • solve problems arising from the natural sciences involving direct and indirect proportion • *draw straight line graphs of relationships that are in direct or indirect proportion*
2. Money and Finance		**interpret municipal bills, hire purchase and personal income tax**
(a) Earning an spending	• understand concepts of personal income and expenditure	• calculate the compound interest earned on an amount over periods of 2 or 3 years • interpret municipal bills and calculate the cost of water and electricity used • calculate the difference in cost when paying cash for an item and when buying the item on a hire purchase agreement • interpret personal income tax tables and determine the tax payable on an amount earned

THEMES AND TOPICS	LEARNING OBJECTIVES Learners will:	BASIC COMPETENTCIES Learners should be able to:
5. Algebra		**carry out the four basic operations with algebraic fractions; solve linear equations which contain brackets *and fractions*; *solve quadratic equations by factorisation***
(a) Algebraic manipulation	• understand that the transformation of algebraic expressions obeys and generalises the rules of arithmetic	• perform the four operations with simple algebraic fractions • *perform the four operations with more advanced algebraic fractions (include factorisation)* • *apply the index laws to simplify algebraic expressions, including expressions with positive, negative, zero and fractional indices*
(b) Equations and inequalities	• understand how to transform linear equations to find the solution • realise the importance of algebraic equations to solve problems	• solve linear equations with brackets • solve word problems by translating them into linear equations • *solve linear equations with fractions* • *solve simultaneous linear equations in two unknowns* • *solve quadratic equations by factorisation*
6. Graphs and Functions		**draw and interpret $y = mx + c$, *find the equation of a straight line graph;*** ***draw parabola and hyperbola from tables and interpret graphs***
(a) Function graphs	understand and draw function graphs on the Cartesian coordinate system of axes	In all the following, m, a, b, and c should have simple and suitable rational values: • determine the independent and the dependent variable in a function equation • construct tables of values for the function $y = mx + c$ • draw and interpret graphs of the function $y = mx + c$ • find the gradient of a straight line graph • *find the equation of a straight line graph* • *find the equation of a linear function if the gradient and the coordinates of one point are given* • *construct tables of values of functions of the form* $y = ax^2 + bx + c$ *and* $y = \frac{a}{x}$ • *draw and interpret such graphs* • *use the terminology of turning point, roots, y-intercept,*

Appendix G: Interview Transcripts (Raw Data)

Simon: Alright, welcome to this interview teacher 05. The first question is, can you briefly explain to me what you understand by continuous assessment?

T05: Okay, thank you for the question. Continuous assessment is the way of monitoring learners' progress throughout the year to check if they met all the basic competency, thank you!

Simon: Okay, what do you mean to check if they met all the basic competencies?

T05: I mean Continuous Assessment, when you are assessing learners, when you are teaching as a teacher you based on a certain basic competency so you need to assess your learners to check if they understand that basic competency before you move on to the next topic.

Simon: Okay, thank you! The next question can you please elaborate on any training received regarding the continuous assessment and its implementation and also in your response can you provide or mention the institution that provided the training and in addition to that, how would you rate the training received in relations to meeting your expectations?

T05: Okay, on my side I did not since I came in this field I did not get any training on the continuous assessment, I only go through the document at least the Ministry make sure that every teacher has the documents and I went through the documents at least to find some information and where I don't understand I contact my subject advisor for at least for him to explain to me what they expect me to do.

Simon: Okay, what specific issues regarding continuous assessment would you like to be addressed for improved continuous assessment implementation?

T05: Okay, I think what the ministry must do is they must at least train teachers on how to assess learners because it seems like a lot of teachers everyone have own method of assessing learners so the way I assess is not the way that teacher B assess so I think we must find a common way of assessing learners in all the school.

Simon: Okay, thank you, the next question, can you please explain to me how continuous assessment is structured in grade 10 Mathematics at this school?

T05: What do you mean?

Simon: How is continuous assessment approached in terms of its implementation at this school?

T05: Okay, especial at our school what we usually use to do is that all the grade 10 they get the same task so if I have to assess 10A at the same time I must also assess 10B and what we actual use do is the way we assess we make sure that all the learners they cover their book, so we monitor the assessment, we don't just give the task and then a learner come and then a learner is having excellent and you see a learner understand that basic competency. A learner can copy so what we usually use to do is we make sure that when we are assessing the learners, we monitored it; we don't just give the task and then we go out so in mathematic I think that the way we are assessing to on my side I think is fair to everyone.

Simon: Okay, you have just mentioned that you do monitor the learners when they are doing their activities meant for continuous assessment, now in cases these learners have to do a homework for example at home, how do you make sure that they don't copy from each other in that case?

T05: Okay, in that case is not easy to see that learners are not copying each other but me as a teachers I know my learners, I know their skills, special I know who is having special need and so what I usually use to do is if a learner if I know that one of my weak learner got excellent in a task for me I don't only assess a topic once I will try again a second activity to see if this learner really understand this basic competency so giving one task and a learner get excellent it doesn't mean a learner understand may be a learner copy, try to assess at least three time or four times then you can really see that no this mark they are getting is real not just fake marks.

Simon: Okay, thank you. Why do you regard continuous assessment to be important or not to be important and in your response elaborate on your experience to motivate your answer?

T05: Okay, thank you. On my side now I have been in this profession for almost eight years teaching Mathematic and I have been performing very well but looking now at continuous assessment on my side I find it not fair because if you have to look to the CASS mark of learners you will find that learners they are having high CASS mark coming to the exam because I am also a national marker if you go for the marking you find that a certain learner who is having high CASS mark cannot get half of the marks in the final examination somewhere somehow we can really see that the way the teachers are assessing is not fair. The marks the learners are getting as CASS marks, most of them are fake teachers assess learner on the easy task for them to get high CASS mark cause some

teachers believe that when the CASS mark is higher it is the benefit of the learner to pass the final examination which is not the case.

Simon: So on that basis you feel continuous assessment should be done away with?

T05: Yes

Simon: What about in cases where there are certain domains that cannot be assessed through a pen and paper for example, through examination, what do you suggest then in that case?

T05: Okay, no I am not saying that we should not have continuous assessment, we must have we must do assessment at the school but it must not be a part of the final marks for the grade 10. I am suggesting that we must do the same thing as we use do to grade 12 even the grade 12 teachers they assess but their assessment is not part of their final examination what you get in the final examination is what will stand.

Simon: You have indicated in the questionnaire that most teachers they don't assess learners in the right way therefore you are recommending the government to not to base the final examination to CA, can you just elaborate on this, what is it that you have observed that teachers are not doing right as far as continuous assessment is concerned?

T05: I said I have been teaching this grade for almost eight years and on my side now I like talking to other teachers just to see how they assess but some of them when I used to talk to them what they are doing is not what people must do so it is like some teachers you know a teacher when you get used to the content they become very lazy what happen is, the task for last year is the task you will give this year so what will happen now if those learners are coming from the same house so that learner will always be getting excellent in the task but when the exams comes it is a different examination so that is why it also put learners on disadvantage to fail so teachers they are not changing their task most of them they are just having a booklet whereby they just know I am on this topic of trigonometry he take the task of trigonometry each year is the same task each year is the same task so what if a learner now is repeating that grade so meaning now a learner get used to the task and get excellent and another thing a gain teachers they are not monitoring their learners when doing their assessment you find a teacher is giving a task he will go and sit in the staffroom and what will happen here to the learners they are coping each other when she is going to mark or he is going to mark everyone is having excellent then he will continue with the next competency but when it come in the examination learners will not make it so and another thing again that I have seen is that teachers they are

choosing marks for the learners . Let me say a teacher have given three tasks, a task of money and finance, a task of trigonometry and may be a task of geometry if a learner is week in geometry a teacher would prefer to choose marks for the learner for money and finance to meaning now learners will have different marks for assessment and you will see that learners at the end that learners everyone is having sixty out of seventy as CASS marks but they were not assessed on the same task.

Simon: Okay, in relation to what you have just mentioned, how do you find the grade 10 Mathematics syllabus in terms of guiding you on the following and please elaborate on your answer. The first one is developing tasks or activities for continuous assessment, two grading tasks or activity for continuous assessment and three recording marks for continuous assessment?

T05: aa… Okay the first one developing tasks for continuous assessment, Okay on my side what I used to suggest I don't know if it can be possible I was thinking that we must involve subject advisor on coming up with the assessment task cause as a subject advisor, you need to come up with a task, a task for assessment you send all you teachers and then you must have specific day, let me say is Money and Finance then you say on 17 of Feb there will be a task of money and finance and all the schools under your all the schools will do that task on that specific day and may be in that way you can see that you can see that it will be somewhere somehow is going to be fear to everyone then me setting up a task on myself and another person setting a task himself and some task they are not for quality some tasks they are really poor so it depends and also a learner get use to the way the teacher is setting the tasks if they are my learners they know how Ms used to set up the task they will get used and I think we must involve other people on developing and setting up continuous assessment tasks to come up with the tasks and send it to teachers or if it cannot be possible, may be the cluster they must also teachers within the cluster they must team up and come up with one assessment.

Simon: In that regard, are you saying that the syllabus is helpful or not helpful?

T05: The syllabus is helpful but it is only that most of us we did not get the training on the continuous assessment. You find a new teacher coming in the field he don't know anything he get the document and she do what she understand on the document what she don't understand you leave it.

Simon: So in other words if I understand you correctly you are saying the syllabus is not really guiding you very explicitly on developing tasks or activities for continuous assessment?

T05: Yes

Simon: What about grading and recording marks?

T05: Okay, there on grading tasks on assessment a document the document is Okay but the problem is us teachers in the field we don't know how to do it is like because what I understand assessment you must assess learners you must assess all the learners in one task now you find teachers who are jumping task, let me say learner A he will give marks for Money and put it on the assessment sheet learner B will take mark for another topic if this learner is week in this task he will ignore this marks which is low and put the one which is high cause teachers now they find that continuous assessment especially in Grade 10 becomes a benefit for some schools to perform to perform very well because they don't know what the national marker or what people use to go mark, they lack that information.

Simon: So in other words you are saying that the syllabus itself is is very helpful in terms of or is giving clear guidance in terms of the tasks that are supposed to be graded for continuous assessment as well as recording the marks for continuous assessment only that only teachers are based on their understanding that they end up recording marks or choosing marks the way they feel is benefiting them or benefiting their learners?

T05: Yes

Simon: Okay thank you. The next question, you have indicated in the questionnaire that you have the assessment policy in place, my next question is how helpful is the policy guide, we have a policy guide version 1999 which is titled towards improving continuous assessment policy and information guide, how helpful is this policy in the context of continuous assessment administration at you school?

T05: Okay, the policy is helpful a like at our case in our case at our school we really use to based our assessment on that policy because the head of department at least she try by all mean everyone to go through that document and she try by all mean to check every teacher' continuous assessment and we find it very useful because it guide us on what to do and what not to do when we are assessing learners.

Simon: Okay, what guiding instruments other than the syllabus that I have mentioned, do you have in place to ensure the quality of continuous assessment tasks and activities at your school?

T05: Okay, like at our school we have a subject policy every subject has its own policy whereby we based our assessment on that so meaning that when we are assessing learners we take the continuous assessment and then we take again the school subject policy and then it guide us on what

to do and what not to do because everything is indicated in that document.

Simon: Okay, how do you ensure that your continuous assessment is valid and reliable?

T05: Okay, is not any an easy question, the thing is on my side …

Simon: Let's tackle valid validity first!

T05: Okay, on my side I know that the way that I assess my learners is what the document is saying I must do and I try by all means at least to give my learners what they deserve.

Simon: Okay

T05: If a learner don't understand a certain topic I give that mark that a learner don't deserve this mark certain marks.

Simon: Okay, Let me rephrase the question, what do you understand by continuous assessment validity?

T05: O Okay

Simon: When is continuous assessment valid?

T05: What do you mean; I don't really understand that question very well?

Simon: Okay, we are saying that we are assessing our learners then we get marks that we send or record and send to DNEA that will contribute towards the learners' summative mark or grade. Now my question is how do you ensure that these task or activities you are giving to your learners are valid?

T05: You are saying this, Okay. Really there is no such a document that indicate that this what you are sending there is valid because on the continuous assessment sheet they don't really specific they don't real give specific topic they only say task out of ten or task out of fifteen so is up to a teacher now to decide what to give but now to me what I used to do is if I give twenty tasks out of ten if I give twenty task out of ten now I don't choose only one task what I do is I add all the task together and divide them with a total and then I will just get one marks out of all twenty and then to me I find I find that that is a good way of assessing because what you are sending is what the learner have worked for throughout the year not only for a specific task.

Simon: Okay, reliability? How do you ensure that your continuous assessment is reliable?

T05: It is, because … Okay is not easy to judge yourself but I think it is because the way I am assessing my learners and the way the final marks come before I even send my CASS marks there I know that when I give my learner a sixty out seventy before they sit for their final examination I have already me myself as a teacher I have already given them marks knowing that this learner if this learner is having sixty out of seventy as CASS mark on the final examination I expect this learner to give me an A depend on the CASS mark and every year when the results they will be out I sit with my two class list and check my learner was having a sixty what marks did my learner obtained in the final examination if my learner obtained an A and then I know that this year the way I assess is the way that I must continue assessing because there is no way of giving a learner a CASS mark of an A* and on the final examination a learner is coming with a D then somewhere somehow you can see that your mark were fake marks.

Simon: Okay, let us move on to the next question. Would you please explain how continuous assessment is monitored in Grade 10 Mathematics to ensure adherence to national norms regulating the implementation of continuous assessment at this school?

T05: Okay, the way we monitor our assessment at our school is that we don't assess our learners during lesson during lesson we teach and an assessment we always do it during study time whereby you as a teacher now you must be in the class at our school what we usually use to do is when you are assessing learners there is now way that you can assess the learners and go sit in the staff room you will be in the classroom monitoring all the learners that they are not copying or they are not asking or they are not asking answers from others and another way again that we use do to at our school we usually use to give home work but when it comes to continuous assessment for the assessment to record the marks we don't record the marks for the homework because homework is something else a person can go and copy at home a person can go ask the parents to do it so we usually give homework but not as an assessment that we are going to record the one for recording we make sure that we monitor it in the class and every one hand in at the same time.

Simon: Okay, just briefly, explain to me the process of continuous assessment from the time you record marks to the time you pass it on to the circuit office to DNEA,… I just want you to briefly narrate on that process, what happens when you record your marks, you enter the marks on the OMR forms that are coming from DNEA then you send them through via the circuit office to Windhoek, just briefly explain to me that process, what happens in between?

T05: Okay, I will try because I really don't not know the channels very well but all what I know is …

Simon: No, I just want to you to explain what you do as teacher to make to make sure that the continuous assessment that you are sending through to the DNEA is really a true reflection of what learners have achieved.

T05: Okay, now what we usually use to do is the first thing that I do when I assess my learners I don't assess my learners on the continuous assessment sheet I assess my learners on the class list then what happen is now after I hand in all the marks in the class list I take the continuous assessment sheet and then I fill in my marks and the way I fill in my marks is if I have given ten test and then in the continuous assessment sheet they are only asking two test I divide my ten test and make five and then I add the total test the total five test of one learners and divide it with five and get one mark and then I divide the other five again and get one marks and then it became two test and then I put my two test on the continuous assessment sheet and the what happen now there I give my continuous assessment sheet to my head of department first to check cause a head of department sometime can come to me and question me and say why is this learner having few CASS marks or why is this learner having high CASS mark me myself I must be able to support my CASS mark I must be able to say this such a learner is having high CASS marks because all the task that I have given this learner obtained high marks and I am not doubting of my learner I know this specific learners can give me an A at the end, or this specific learners is having low marks there is no way I can cook marks for this learner I give what the learner deserves.

Simon: Okay

T05: And then now what happens is my head of department now who send those papers to the to the circuit and the circuit to send it to the examination now what happen is there at the examination now in our region they don't come back to us and say this CASS mark they are fake this CASS mark they are low This CASS mark they are high they only send it to NIED so we really don't know now if is the connection or maybe they contact the inspector or what but up to now I have been in the field for eight years I did never I have never seen a subject advisor or the examination head coming to me and say why is your CASS mark low why is your CASS mark high let me see how you assess is this marks fake or what?

Simon: So, In other words you are saying your continuous assessment marks are only monitored by the head of department?

T05: Yes

Simon: That is the last person who checked your continuous assessment?

T05: Eeeee!

Simon: so there is no any other person that monitors this continuous assessment either at the cluster centre cluster centre or the circuit office?

T05: No, they don't do that all what they do I think they just to sign because if they use to do it they could have at least call me or send me a paper to say thank you for your CASS mark or improve in A and B for eight years I have never seen something like that.

Simon: Now when your head of department is checking your continuous assessment before he/she forwards these OMR forms to the circuit, now does the head of department sample some of the work that the learners have done either the books or test papers where the marks are recorded to verify that what is recorded on the OMR form corresponds with what actually is reflected in the learners books and in your records as a teacher?

T05: What we actually use do to at our school is that I before I take before I take my CASS mark to the head of department the head of department will go in my class list in the list and then will select few learners even ten or five and then will ask me that when you are coming when you are bringing your CASS mark I need the book for this ten learners or I need the books for this twenty learners at least and when she is going now to check my CASS mark she is going back to the work of the learner and see that the ten that she is getting in the form she must be able to see that ten in the book and if she cannot see that she has to call now the subject teachers to come and explain because like in my case she might look for that ten but she cannot get that ten in the book cause what I usually use to do I add them together and divide.

Simon: Okay, now the sample that that you take to your head of department how what criteria do you use to select the sample that you have to take to the head of department?

T05: Copy, Actually is not me to select she just give me a list I don't know how she use to select them cause she would just give me a list and say Ms. T05 on Monday your are handing in your you are handing in your CASS mark plus this ten books for this learners I don't know actually what she use to check.

Simon: Okay, our last question, based on your experience what are shortcomings within the process of continuous assessment implementation, both in the national documents, like the syllabus and policy and in practice and when

you are responding to this question please elaborate on these shortcomings?

T05: Okay, to me actually on my said as I have said at the beginning I am not supporting the continuous assessment are on the final examination Okay continuous assessment it must be done to assess the learners to see if the learners understand but the whole process of sending marks to the exam I mean to add marks to the examination to me I find it totally unfair because now as we are talking teachers they have also teachers they also understand what is CASS mark and they also come up with a tactic of hitting good marks what most school that use to do is if we have to look on the on the assessment that use to come on the final examination you will find that some schools they are always having plus on their CASS mark and most school they are always having minus on CASS mark what happen for your school to have plus on their CASS mark so school some schools they know they have bad good learners I don't want to mention schools' name but I know them they have good learners now what they use to do is they give their learners low CASS mark for them to benefit a plus of thirty and you will find that the whole school is having a hundred percent what if those learners why if those learners they are the best why they cannot hit on the CASS mark why they only hit on the final examination? And another side again you will find a school having high CASS mark and when it comes to the exam they are having low mark meaning that the way the teacher is assessing is not good so now here the person who understand how CASS mark and exam work they are hitting the person who don't understand CASS mark and exam work their learners are always failing so I find it the whole process is totally unfair to others.

Simon: So, in other words you are saying there is some kind of manipulation of continuous assessment marks?

T05: Yes

Simon: Okay, let still go back to that question. As far as the syllabus and policy are concerned you have not identified any shortcomings there with regard to continuous assessment?

T05: No, No, the document is ok is just the way we are doing it.

Simon: Ok, thank you very much, we have come to the end of this interview. Those were the few questions that I have, thank you for responding to those questions.

T05: Thank you sir.

Simon: Alright.

END OF INTERVIEW WITH TEACHER T05

Simon: Welcome to this interview teacher 06. I have a series of questions that I am going to ask you the first question is can you briefly explain to me what you understand by continuous assessment, the concept continuous assessment what do you understand by that?

T06: Thanks for the question, on my own perspective about the continuous assessment, continuous assessment is the accessing assessing of the learners' work throughout the endeavour of the through to the complete of the course, let me say now for the syllabus that they supposed to work on and … provided with its own basic competencies whether they master these topics to be covered in that grade like for example Grade 10 and this continuous is assessed time to time, it is assessed time to time before the summative you have to collect different variety of activities before you sum up at the end of the year to decide whether the learner is promoted or is qualified to go for next grade or not .

Simon: Thank you very much, the next question, can you please elaborate on any training received regarding the continuous assessment and in doing so, can you provide or indicate who provided the training and how would rate the training received in terms of meeting your expectation?

T06: Iyaa, the training that we have we have a type of a workshop where we have been work-shopped about the form itself how to fill in the continuous assessment form and how to sum up at the end of the course and also sometimes like the activities that how to go about with the activities when before you assess the learners because is not all the activities that a learner is doing that is may be required to be assessed so we normally have to we have been trained on how to assess through the formal a not informal but somewhere sometimes the informal you can also use it but more especially in Mathematics really difficult in an informal about our assessment when we are assessing on that and when this one drives us now or it made me a bit to understand how to complete the form and it is also gave me a privilege of now working or how to look at the activity the quality of the activities and the value itself as a whole like by using the knowledge those questions whether knowledge skills and all those questions how to go about it when before you assess the learners before you give the activities to the learners like investigations, projects and assignments.

Simon: And who provided the training?

T06: The training was provided to our subject advisor a Mr X.

Simon: Thank you, the next question, what specific issues regarding continuous assessment that you would like to be addressed for improved continuous assessment implementation, in your view?

T06: Iyaa, in my view what I need to be improved on or more emphasised on in more details is on how construct really a project and practical activity is that there is a difference between a practical and project and I think this one its content and the marking scheme is not exactly the same since you go you give the learners to go and explore they do on themselves and you need to decide you don't know whatever an individual learner what will brought but you give it and the what is collected is going to base on what the guideline that you gave them but you don't know one learner might bring up something different things from other one so I need to be also addressed to on how to determine the criteria the marking criteria for.

Simon: Thank you for that response, can you please explain to me how continuous assessment is structured in Grade 10 Mathematics at this school? How do you implement continuous assessment in terms of how is structured specifically at this school, how does how is continuous assessment is operationalised at this school?

T06: Iyaa, so far in the plan of action at our school our principals and HODs they come up with the idea like you give at least three activities per week whereby perhaps you might determine whether one is can decide you assessing a learner or not and at least in one month you could give at least two to three tests and one project or an assignment in a month, that is how exactly it is was determined by the plan of action of our school so even though some where some where we have weaknesses perhaps that we did not do or complete it.

Simon: Okay, just a follow up on that one. Can you just may be elaborate on from the point of assessing the learner to the point of recording their final marks for continuous assessment, what happens in between there, what procedures are in place as far as your school is concern in between there from the giving out the activity to recording the final marks that you send out to DNEA as continuous assessment mark for these particular learners that you have?

T06: So actually on the marks that we collected we have a laugh paper not exactly a laugh but it is paper with a list where what we call is a harvest sheet so we are harvesting the marks form individuals then from there per term we entered them in the form, this ministry CA form and then we have to complete it as per term at the end of the term of each term then we use those marks when we add the exam when they write the exam we add them together then we mark before we decide like a term mark plus examination mark it gives you a certain number like one hundred then

you decide the symbol of a learner so you add at the end before when it reaches the end of the syllabus. Let me say for instance, at the end of the year now you have to add tern one plus term two and plus term three then you get three hundred then from there you convert you convert it to two hundred then it gives you two hundred that you will divide by two then you get the total that will decide the grade of the learner.

Simon: And that is for Grade 10 now?

T06: That is for the… no exactly for the Grade 10 what they do we worked up to term three, term two and then term three what we do we just add this term three is also there but is not sum up is not us like teachers to sum up now what to decide the grade of the learner at the end but the DNEA they say we just send the year mark we calculated the year mark then we send them to the DNEA before the examination because they will add the examination down there.

Simon: Okay, why do you regard continuous assessment that is, you as an individual teacher, as a Grade 10 Mathematics teacher, why do you regard continuous assessment as import or not important? Elaborate on your experience to motivate your answer as you respond to this question please.

T06: Okay, I regard continuous assessment as important, I know the barrier or the challenges could be there sometimes but let me start with the importance is that it really looked at us as CA close first is concern as CA is really evaluating the work of the child and whatever the child is doing is not doing for good is just for nothing but is doing it because she is having that knowledge of doing it and then this is really measuring the capability and understanding of an individual learner so I understand that whenever learner is having the year mark according to whatever they have been doing whatever might happen at the end down there those points those activity will really will really high ranking the learners the learners' level would put the learners that no learner B is supposed to be here but because ADC ABC something somewhere went well exactly only that I don't know I don't know what how do they go about it on the DNEA whenever a learner fell sick or something, but let me say a learner becomes unconscious cannot be able even to write if it is admitted in hospital for instance then I don't even know how they go about it there but what I am look at now is a is the collection the whole collection of those marks is really helping the learners there and when they reaches the DNEA there when the mark the answer sheet of the learner they will be able to see oo.. this learner was doing this at school but this is how she or he do it did it in the examinations then they can value now and worked out is this year mark correctly as the teacher give the learner or was not correct I really value it as important. But the challenges are like you see some of the works like the Namibia education system is more clarifying

on group working and most of the learners are more reliable to the others when one knows you might just if you happen to to assess this works that are mostly worked in group I know I understand they are also work but to mark those works that have been worked in a groups more especially like a home work or activity or something that you give perhaps in a worksheet then you give to the learner in group of two or three go it should be you need to be conscience somewhere you need to be careful because you know this learner may be benefit only from learner A and then when whenever you are sending this year mark now you was value it as important sometimes is not reflecting the truth colour of the learner.

Simon: Okay, no, thank you for that response. The next question, how do you find the Grade 10 Mathematics syllabus in terms of guiding you, now we are talking about the syllabus itself as a document, how do you find it in terms of guiding you on the following issues: the first one is developing tasks or activities for continuous assessment?

T06: Okay, exactly the syllabus as a document it did not really exactly give you the criteria like how do you decide this but it gives you the frame the frame number of marks that you can rely on would before you set that activities.

Simon: Grading tasks or activities for continuous assessment?

T06: ee…the same thing like your grading test when grading a learner, am I right Sir?

Simon: Yes

T06: Okay, when you are grading a learner you also need to rely on the syllabus it is really clearly stipulating it.

Simon: Recording the marks for continuous assessment?

T06: Recording the marks of the continuous assessment is very good like there is only one portion I think is on a what is this on the test iyaa the currently the format that we have now a is on the test, do you have one sir? Okay, is on the test there because the column in the third term there suppose not to be aa.. there the spaces become more so you have to escape one space then you will you will saw you will add them up so that they will give you seventy that is supposed to be an end of term mark.

Simon: Okay, so otherwise you are saying the syllabus is guiding you clearly on these three aspects that is, developing tasks, grading tasks and recording marks?

T06: Yes

Simon: Okay, the next question, how helpful is the policy guide; we have a policy guide which is 1999 version which is titled towards improving continuous assessment policy and information guide. Now as far as this policy is concerned how helpful is this policy in the context of continuous assessment administration at your school?

T06: Iyaa, the document itself that this policy guide it comes up now it doesn't have something very different from the syllabus what is expected in the syllabus but it comes as it stipulated itself it is guide it is to give you an idea how to go about certain activity and what plus the importance of this CCA continuous assessment just concern so when you are using it you really having an clear picture that on how many how many marks that you need to test a learner or during what examination and how to go about it if it is a short or like in Mathematics concerns as it concern paper 1 and paper 2 they are having two papers so you cannot this one is really guiding you cannot set up an examination which is on a perhaps you gave paper 1 you gave 30 marks while an perhaps on paper 2 you will give something like 30 marks then there you will give 70 or you will get 150 or something that is really irregular that the guiding it is guiding you exactly on how many marks supposed to be for paper 1 like 65 then you get one 85 on the second paper so when you add them they will give 130 you add the 70 for the year mark or end of the term mark then before you decide the grade of a learner.

Simon: Okay, does this policy stipulate in terms of the cut off as in terms of how many activities you have to give out during the course of the year to the learners and also the weight as to how much each of this activity counts towards the continuous assessment of the learner, is that the case ?

T06: It is not exactly that is the case because it is just guiding you that perhaps if you want to be on the standard with others at least it guides you at least you give this but this one will be depend on an individual learner that I mean teacher that how many activities will you give up to the end of the year but it gets a specific that certain activities should be covered before you sum up at the end of the course.

Simon: Okay, let's move on. What guiding instruments other than the syllabus we have talked about do you have in place to ensure that the quality of continuous assessment tasks and activities that you are giving is of high value or of high quality?

T06: Eemm…

Simon: Other than the syllabus what other instruments do you have in place to make sure that your continuous assessment at this school is of high quality?

T06: Iyaa… like in Mathematics exactly what we have in place up to now we did not have a certain document which is having which is measuring that this one is for the high quality but what we have is like you set up but you set up according to the a to the syllabus to the basic competences that is stated in the syllabus and then the syllabus is also reflected the basic competencies of the syllabus is also outlined in the scheme of work or programme of working this one that when you are working so you look at when you are asking the questions for instance for the test so you need to basic on the basic competences that you might take to my HOD then he can value to see what you set for the learners whether it is really what is expected learners to do.

Simon: Okay

T06: Iyaa… and this one is also reflected when the and our HODs are visiting classes this class of observation when they are doing class observation and visiting our preparation files they have to check because the syllabus is there the scheme of work is there are you really the activity that you do is it really required for those learners of that level grade 10 to do it in Mathematics or not.

Simon: Okay, how do you ensure that your continuous assessment that you have collected or harvested during the course of the two terms and you compile to a final grade or final mark that you send out to DNEA is valid and reliable? What ensures that your continuous assessment mark that you send out is valid and reliable? Let us start with validity first.

T06: Okay, so the validity our HOD verify I take the harvest sheet and the CA sheet that one for the Ministry then I take out them together to the TA the HOD may require a.. activity books from learners to come and verify is this the mark that you give to learner A reflect the one that is reflected in the harvest form and CA form that is now you look at the validity of it what is it really true that what you recorded is what the learner did.

Simon: Okay, reliability, how do you ensure that these marks are reliable?

T06: The to see whether the marks are reliable mostly I I took for those individual works rather than taking the group work so when I take that individual work you can see that this learner is the one who did it and most of the time that I prefer I would like I like them to do it in the class while in my presence to see whether everybody is doing rather then somebody is just copying from other.

Simon: Okay, would you differentiate for me between reliability and validity in terms of the continuous assessment, how would you differentiate these two: the validity and reliability of continuous assessment in practical terms?

T06: In practical terms, because perhaps I am I don't know exactly whether I understand it really or not but in my perception I say the validity is really whether is this activity the activity that I gave is it exactly what is expected for the learners to know this is what I prefer look at validity as like that and reliability is the truth, is true that you what you recorded is.

Simon: But how do you ensure that that is true what you have recorded, how do you ensure that what is recorded is actually what the learner deserves, how do you verify that?

T06: I don't thinks really you have to record what the learners deserve but you record according what the learner did. You see the learners are having different speeds in understanding how much they master the content on that compel based to the questions that you imposed to them you gave them.

Simon: Okay

T06: Uumm..

Simon: Would you please explain to me how continuous assessment is monitored in Grade 10 Mathematics to ensure adherence to national norms regulating the implementation of continuous assessment at this school?, when I mean national norms we have the syllabus which stipulates how the continuous assessment supposed to be conducted and recorded okay, now what I want you to tell me is to explain briefly how continuous assessment is monitored at this school to make sure that the national norms regulating the continuous assessment have been adhered to before you forward the continuous assessment marks to DNEA for the summative marks for the candidate.

T06: Iyaa, at our school level up to now this work this work when you collected and you finally you then you finally collected you sum up or before you sum up as I said before earlier that we have our HOD who is having to to work and see whether you did as it is expected to you by the Ministry to do for a learner, iyaa this is how we collected this one we record them in the form and then see whether you did it correctly as high as it how as how it is supposed to be done in the correct form whether you used the correct format no not format exactly but a formula how to calculate it because otherwise there are many ways of killing one cat one

may use another but there is certain method that is stipulated in the CA form that we should use before we sum up and it to DNEA.

Simon: Okay, let me ask you this this question. What determines what activity marks will contribute to a learner's CA or not.Iin other words, how do you arrive at the decision of selecting the marks for the learners to count towards the learners' continuous assessment marks?

T06: Iyaa, actually depends to the number I recorded if I record let me say too many, let me say for example I goes specific to it I record let me say I record four home works which is supposed to be a topic task for instance a this is depends to an individual there is no a rule or a regulation at school level that the teacher should use perhaps the well passed activity or what but it depends to the teacher now like I look at now the work the work that was mastered because all the work that I have recorded has been expected for the learners to master them iyaa so definitely if I have to decide as teacher which is the learner then I decide no, let me take this and ignore this.

Simon: Now, according to the response you have given in the questionnaire you have indicated that learners' assessment activities or the score that recorded to be part of learner's summative promotional grade are chosen based on the predetermined activities that would be recorded to count towards this continuous assessment mark, secondly you have also indicated that assessment activity scores are recorded for each learner that are chosen at random. Now, which of the two do you normally use as far as selecting the continuous assessment or activities to count to towards continuous assessment for the learners that will obviously count to the final mark?

T06: Iyaa, it is a good question thanks for the question but I said to choose at random you see if you make if you recorded a lot then you have to choose on random I refer it to the random because now is you depend to the teacher now to ask to check which one are you to take but nobody will come and say hey take this one and this one but you as a teacher now depend to the have you sit with your work sheet and then from there you choose which one you would like to choose for the learners as for recording purposes.

Simon: Okay, let me get this clearly, if you said the marks or the activities are chosen based on the predetermined criteria or to say that if you decide that this activity that I give today will be marked and recorded to contribute towards learner's final continuous assessment mark or you can say you give out one activity today and you give out another activity tomorrow then another activity on the third day then you choose at random base among those three you decide yourself that I am going to

take this for this learner, I am going to take the second for the second learners and I going to take the third for the third learner so this is how I understand it. Now I want you to clarify these two issues to me as you have indicated in the questionnaire, what exactly do you do or what exactly determines what activity to be taken to contribute towards learner's mark? Because you have now given me two options I don't know which one I should consider.

T06: Okay, ee.. maybe is just because of lack of understanding perhaps but when I mean on random I don't mean that an individual learner have to be given mark or his her marks to be recorded according to the activity may be perhaps like I record four then I say learner one is from the first activity then this one I will record in the first no, that is not what I meant, but what I mean is ee.. if I record four then I decide no ee.. today is the ten tenth of the seventh month then if I give the other activity the other day then I decide no the other one was very low performed for example that I said no let me Okay all the learners they will be they will be awarded this marks according to the going to contribute to their CA or the year mark final mark. Ee.. you take one activity let me say you take one activity that you record for all learners but not like this learner is getting from this activity this one is getting from the other activity, that is not exactly what I meant.

Simon: Okay

T06: Iyaa

Simon: What now determines that this activity should not be chosen but I would rather opt for the other one, do you look at the performance of the learners or what exactly do you consider?

T06: So exactly I what I do ee.. is only perhaps in practical like not really go as a Mathematician person or teacher I understand that Okay which one is having high mean, is what I consider their meaning the mean the average mean of the classes yaa in that activity.

Simon: Okay, so that is the basis you use to choose the activity to be recorded?

T06: I usually yaa yaa when I look at it I say no this is better performed.

Simon: Now, what happens in cases of having, say for argument sake, two or three learners absent in that particular day when that particular activity with high average was decided upon to count towards the final mark, continuous assessment mark, what do you do now for these learners that were not part of the group?

T06: Exactly what I how I tried to help them I reset them an activity you see a an activity when you are given an activity you cannot finish the whole content all the questions from one content to say no I have finished the questions now this is what I give already to the learners who were present yesterday so this one I cannot no more having extra questions from this content but I can use another question or changed the question of that content the same content and give to the learners then.

Simon: Then that counts now towards their continuous assessment?

T06: Yes

Simon: Okay, our last question will be, based on your experience, now I want you to look at your experience and reflect from there, what are the shortcomings within the process of continuous assessment implementation, both in the national documents we are talking about shortcomings based on your experience within the national documents, that is the syllabus and the policy Okay and also in practice the way you have experience it. What do you thing are the shortcomings and I would like you, when you are responding, to elaborate on these shortcomings as you respond to the question.

T06: Iyaa, perhaps May I beck your pardon about shortcoming can you explain more about?

Simon: Iyaa, what do you think you feel is not going well as far as continuous assessment is concerned either stipulated in the documents that is now the syllabus may be the syllabus is not explicitly clear as what should be done in line of continuous assessment or the policy does not really give out clear information as what exactly is supposed to be done as far as continuous assessment is concerned or the practice the practicality of it in terms of your experience how you have experienced the process of continuous assessment what do you think should be addressed what are weakness if I can use that word as far as this process is concerned that you feel need to be addressed so that continuous assessment can be improved?

T06: Good, thank you for the question when I look at the syllabus the syllabus it is national document as it is national document it did not state kutya that under which topic supposed to be give a project for example those big works iyaa they suppose even to be give us even exactly that Okay under this topic give the project and then you give project about what to check the reliability whatever other people are doing on the other corner of the country is what exactly the learners are doing here so you find us now I give the project on on a statistics somebody gives on project on a for example on the proofing Pythagoras Theorem now these people these

two people they are all giving the same mark in the CA form continuous assessment form as it is contributing to the year mark of the learner but the mark of the year mark the year mark of the learner they are all the same nationally they are the same so but when you give the work there is when you have count and convert they were supposed to give us exactly on which topic we suppose to give in project and or assignment or practical investigation about what and the framework the frame mark the expected marks they supposed to be how many like what they did in the examination paper one is supposed to have how many mark they suppose also to decide because like if you give the project give this one then from there you convert like this now one is giving out of thirty I am giving out fifty the other one is giving out of sixty when you convert obvious it is going to give you the mean the average mean of that but according to the work because if you give more than the learner perhaps the work that you give the marking criteria that you use, I think that you understand me the marking criteria that you will use this person perhaps the teacher B will look at everything that the learner did that is why goes up to sixty marks before he converted but if if this activity is not of high quality because the document was supposed to guide us that give about this topic and the marks must be only this then we divide ourselves then we divide them to determine the marks where to mark and where to put the marks until you complete all the marks in the activity rather than somebody is giving for thirty one for forty the other one for sixty and all those type of things.

Simon: In other words you are saying there is lack of uniformity in the syllabus?

T06: In the syllabus when it comes to certain activities, yes.

Simon: Okay

T06: Eemm and the other question you asked me is about my experience?

Simon: Yes

T06: Eemm any way about my experience what I experience up to now we are still meeting some challenges somewhere somehow because you find you're your supervisor is telling you no this marks this marks are make our learners failed like grade 10 remember grade 10 is called national wide in the radio and everybody want to be there with the name being called so but this is really the challenge because your supervisor you cannot say Okay you cannot tell me to do this because ABCD you might find up yourself sometimes having a difference with your supervisor so exactly I did not observe this one currently at our school but I know it has been happening those years and I usually meet my colleagues there at workshops and somewhere when meet we are all having the same probably problem this is what I look at in the way that a document ….

Simon: Sorry to interrupt you now when you say having differences with your supervisor, what exactly do you mean?

T06: Iyaa, differences like you do not want to follow what is perhaps is telling you to do and is like you undermining perhaps you want to fail the school and use you that type of thing, this is the differences that I mean.

Simon: Are you saying that the supervisor not in agreement with what you have recorded as the true reflection of what learners did in terms of the scoring of the activities or what exactly is it, because I just want to get that clearly?

T06: Iyaa, I do not want to lie to you but it happens like that exactly you get it focused iyaa that is the truth that perhaps now you recorded there but they will say, oh did you give enough work or how comes that this are low marks, our school is going to fail.

Simon: O Okay, no, thank you very much for those responses we have now come to the end of our interview , thank you very much for your time and for those responses.

T06: Thank you sir.

Simon: Alright.

END OF INTERVIEW WITH TEACHER T06

Simon: Okay, good afternoon teacher T02 welcome to our interview this afternoon, I have a series of questions that I am going to ask you I will appreciate it if you can respond to these questions as honestly as possible. The first question, can you briefly explain to me what do you understand by continuous assessment?

T02: Continuous assessment, I think CA is just like you assessing learners on their works according to like to the syllabi itself you assess them continuously like day by day. Like in Mathematics, you assess them either formally or informal either you record or did not record that is what I understand by continuous assessment.

Simon: Okay, can you please elaborate on the training received regarding the continuous assessment and its implementation and in your response also indicate who provided the training and also how would you rate the training received in relations to meeting your expectations?

T02: Really there was no like training given on continuous assessment on my side I didn't received any training on continuous assessment but when we

go for workshops we discuss with colleagues how to tackle the or how just to handle the continuous assessment itself we discuss we agreed on some aspects some we disagree, yaa we just discuss and we follow the syllabus itself.

Simon: Okay, what specific issues regarding continuous assessment would you like to be addressed for the for improved continuous assessment implementation?

T02: Uuummm, investigations and project.

Simon: If you can just elaborate further.

T02: Aaa.., there I mean like how to give investigation how to give project in Mathematics like, with I the difference between the two I do not understand it investigation and project in Mathematics is a hard desk task I normally use to give.

Simon: Okay, is that all that you expect to be addressed as far as continuous assessment is concerned?

T02: Uumm yes.

Simon: In other words, are those the only issues regarding continuous assessment that you expect to be attended to?

T02: Iyaa, uumm, only those two.

Simon: Okay, let's move on. Explain or please explain to me how continuous assessment is structured in Grade 10 Mathematics at this school.

T02: Structured, uumm excuse me, structured what do you?

Simon: Okay, let me elaborate on the question. We have continuous assessment as a process that begins with giving out activities or begins with a plan then you go out to assess the learners then you mark the work and you record marks etc etc. I would like you to narrate to me the process of continuous assessment how is it structured at this school for you to be able to implement and administer continuous assessment as per the requirements in terms of the syllabus and in terms of the policy, how is CA or continuous assessment is structured at this school? Basically I am looking for the whole process what happens from point A to point Z?

T02: Just in Grade 10?

Simon: In Grade 10.

T02: Uumm, here as I am the only Mathematics teacher for Grade 10, there is no like a formal maybe program in place how the CA can be conducted but what I normally do is like obvious in Mathematics we believe involve learners then they will not forget then that one can be like informal everyday mostly every day I make sure after I explain something to them they do something also. I mark it I see they understand just topic task just okatopic task for instance I covered for three days I give them a topic task where books are closed even just out of ten that one I don't record it just to see they understand now at the end of the topic itself or chapter is when I give the overall one out of twenty or even thirty, it is now a formal test. That formal test is then the one I either scale down just to accommodate the form itself for Grade 10 either I scale down to fifty to be investigation or I scale down to ten to be a topic test or ten to be a topic task. That is just how I get their marks that are the way.

Simon: Oo Okay, is that all that happens?

T02: Uummm

Simon: Alright thank you very much, let's move on. Why do you regard continuous assessment to be important or not important, elaborate on your experience to motivate your answer as you respond to this question?

T02: I think I believe CA is very important either the formal one or the informal one because especially in Mathematic learners have to do something just for them not to forget buts when it comes to promotional to go to grade 11 is where I don't see the use of CA simple because their CA are I mean the exam itself learner wrote the common exam national but the continuous assessment itself it was not the same whereby some learners went through easy task some learners went through difficult task or difficult task and test aa therefore at the end there symbols of the learners is not the same some learners they are treated well some learners they are treated more fairly some learners they just even treated them group based works therefore like the one we send there I don't think that is that much important.

Simon: What do you mean by the one that you send to DNEA is not important, can you just elaborate on that?

T02: There I believe it makes some learners to pass and also fail some learners, me I am of the opinion like learners can just do their work here work here and exam is just their promotional marks they wrote even exams out of two hundred scale it to one hundred their symbols period.

Simon: So you in other words you are saying is what happens in schools is not rally of high quality that the learners will benefit in terms of assessment?

T02: Yaa, that is what I am trying to say, but not in all schools. I you know like this year teachers we have different understanding. The way we understand it is not the same. The way I assess my learner it is not the way someone assessing his or her learners at his school. There now comes a different then it means some learners may be just copy some learners is like this some learners is like this. Therefore, to me they come like CA at school, some they are of high quality some they are of low quality some there is even none. Because nothing show that ok these learners were assessed teachers can just even look at the learner and put marks there for them.

Simon: Okay, thank you very much for that response let us move on. How do you find the Grade 10 Mathematics syllabus in terms of guiding you on the following aspects: one developing tasks or activity for continuous assessment, two grading tasks or activities for continuous assessment three, recording marks for continuous assessment?

T02: Uumm, the syllabus itself?

Simon: Yes

T02: Like in terms of recording marks, the syllabi give the maximum marks per task here I mean I can even give you like Okay a test must be out ten that way it gives some guide line.

Simon: Ok

T02: In terms of creating a task…

Simon: Developing a task, yes

T02: Developing a task,

Simon: Umhu

T02: There, it gives like what the learner must know or what a learner must be able to do therefore now with those umm those outcomes or with that competence you also build you task according to the competence like Okay learner must be able to do this therefore that is what you must put in the task.

Simon: Okay

T02: Umm, what else?

Simon: Grading?

T02: Grading?

Simon: Grading the task.

T02: Grading, like marking and giving?

Simon: Yes, be able to translate what the learners have done in terms of a mark or symbol.

T02: In terms of mark a symbols ya it also give like Okay may be from here up to here is an A here up to here is B but in terms of marking that can be something like a marking scheme or in terms of marks what?

Simon: Iyaa, in terms of how do you allocate marks to a task, is the syllabus really providing you with enough guidance on how to allocate marks to this particular activities or task that you give out to learners?

T02: Only give the total like total may be total task is here but how you will allocate it, that one is not given.

Simon: So what is your opinion on that as far as the syllabus is concerned?

T02: Aaaaa.. my opinion is may be to provide like continuous assessment manual where there are just example to give like this one even for this task topic like they say Okay this is may be numbers Okay these are the topics tasks you must give under numbers then after numbers that is the topic tasks that you must give under money and finance, that one can be better.

Simon: Okay, thank you let's move on. The next question on is, how helpful is the policy guide, we have a policy guide version 1999 which is titled towards improving continuous assessment policy and information guide now hoe helpful is this policy in the context of continuous assessment administration at your school, at this school?

T02: Uumm are that policy is not available.

Simon: Okay.

T02: Or if it is available it didn't come across my way.

Simon: Okay, thank you let's move on. What guiding instruments, other than the syllabus do you have in place to ensure the quality of continuous assessment tasks or activities?

T02: Uumm, apart from syllabus there are there is a scheme of work from scheme of work there are also some old question papers like old question papers help with activities because I must ask questions based on what is also normally used to be asked I check how the questions use to be and also is also where I build my questions.

Simon: Okay, now how do you ensure that your continuous assessment that you have collected or harvested and recorded that eventually you pass on to DNEA as part of learners' final summative grade is valid and reliable?

T02: Uumm, to be valid and reliable I make sure the task which I record or the task which I record they must be done while I am invigilating the learners I give the like Okay you must do this while I am there to make sure there is no copying there is no like asking or there is no one who can do those questions. Aa for instance uum for instance like a test or investigation you know sometimes you can say Okay this is investigation I will record it you tell the learners I will record it then you give them an that investigation they go with it home obvious they will find those people at grade 12 are do for me this activity then when it come to you, are good marks excellent you record then send to DNEA. But for me what I do to make sure is quality and valid I make sure I just tell them Okay tomorrow or after tomorrow there is test about that topic, individual test your marks I will record them therefore what I record and send there is an individual learners' marks, no group work I can give them group work but I that one I will not even record it what I record is individual learners' mark done with a closed book is not like do while the book is opened that's why I look at as it is valid.

Simon: Reliable, how do you make sure it is reliable?

T02: Umm.., reliable means what?

Simon: Eee, there are two issues as far as the work that we do is concerned now we are talking about continuous assessment, we have to make sure that our continuous assessment is valid that is one thing and secondly we have to make sure that our continuous assessment is reliable Okay, now how do we make sure that our continuous assessment is reliable? If, for example, If you if I take one of your tests that you have given to learners that you have already marked and given marks and I take it and go and mark it if I find the marks that you have given and the marks that I have given differ then that means these marks that you have recorded and sent out are not reliable because if a different person mark your paper will arrive at a different score then what you initially got. Now in in the spirit of this question, how do you ensure that your continuous assessment is reliable, you have already explained the part of validity?

T02: Okay, that one then reliable can be can depend like to an individual because if I mark something I cannot really say when you go and mark it you will get my same marks but I make sure when I record the marks I give back the papers to the learners we go through like give feedbacks if there is an error there the learner can come back and say sir here you taught me like A and B and B then there can be able to change and also change the marks may before it to be reliable but the way we mark aaa… *(doubting).*

Simon: Is that the usual practice that you always go through with your learners before you record the marks?

T02: Aa.., I can record them and there is always a room for change if may be I give them papers because like it was not they wrote yesterday but Sunday when they wrote something you give them feedback obvious you can sometimes make mistakes you either give the learners some mark or you rob them marks obviously they will come back to you, sir you said that you will record these marks but here you were supposed to give a mark for this one.

Simon: But if it happens that discovery did not take place, that's if the learners did not, for one reason or another, missed your error in terms your marking now it means that that error will go then, are you admitting that the continuous assessment that teachers normally send out to be part of learners' summative grade is not reliable?

T02: I cannot say is not reliable you know errors they are part our daily activities even like let say a learners wrote exam itself the final exam are a paper was marked learner failed Mathematic with an E learners are pay for re remarking learner came out with a D that one happened now there were like a paper go through a lot of teachers to mark it.

Simon: Okay

T02: Those are just like errors which can happen obvious when it comes to marks nothing is marks cannot be hundred percent reliable.

Simon: Iyaa, but I want to still to come back to the issue of continuous assessment at this school because I want to be convinced that the continuous assessment that is send from this school is reliable. If you can just narrate to me in detail what exactly that you do to make sure that although there will be some human errors here and there but at least ninety percent of what you give out is reliable?

T02: Okay,

Simon: What mechanisms have you put in place?

T02: Point number one, the activity itself when we give feedback it goes to the learner while doing feedback with the learners where learners can able to identify where may be something somewhere went wrong from there once I recognise I come up with those marks you know calculation in a CA itself sometimes you can also made a mistake my CA goes to the Principal who also re recalculate if okay is it here this one sixty was really converted here and this one added here and give me this amount, just to verify my calculation.

Simon: Okay, is that the current practice?

T02: Yaa, is a current practice.

Simon: Okay, now does that also happens with individual activities that you have recorded, do the principal have access to the individual papers for candidates where these marks were copied into the CA form before this CA, the final continuous assessment is recorded in the ORM form that you receive from DNEA, is that the normal practice?

T02: The normal practice is like at like toward s term end the principal can even say okay give me like five books you know we have like twenty forty two learners like ten books Okay with those ten books is when like he can go through and see if the marks in the learners papers is the marks you recorded, also he verify them.

Simon: Okay, thank you. The next question, would you please explain how continuous assessment is monitored in Grade 10 Mathematics to ensure adherence to national norms regulating the implementation of continuous assessment at this school?

T02: Monitored by the…

Simon: Who whoever is responsible for monitoring the continuous assessment.

T02: At our school like CA is like to be monitored by managements, we just submit our papers and books just to be monitored by the principal.

Simon: Okay, is only the principal who is responsible for monitoring?

T02: Aaye and the members of management.

Simon: That include?

T02: That includes me, Mr. A and Ms. X the HOD, Ms G the Geography teacher, yaa.

Simon: In other words, is the principal and HOD that does the monitoring?

T02: Yes, yes.

Simon: Alright, thank you. Our last question, based on your experience what are the shortcomings, now we are talking about now you are reflecting from your experience as an individual teacher for Grade 10 Mathematics; what are the shortcomings within the process of continuous assessment implementation both in the national documents that is now the syllabus the policy you don't have it and in practice as a practicing teacher.

T02: Uumm

Simon: I would like you to elaborate on these shortcomings as you respond to the question please?

T02: Uumm, the shortcoming when it comes to the continuous assessment in terms of the syllabi itself?

Simon: Uumm and in practice.

T02: The syllabi itself now make it hard like to come up with a valid or the one activity you call that one is a quality work because it does not give the like the real even the example itself it only give you like the task must be out of ten but the quality of the task that one is a really big problem you can either like be like having problem to come up with just task now you talk about like now as on my own experience are you know you teach like Mathematics for four three years or five years and the problem come here like okay you will you can even say let me just like re-ask the same questions I asked last year even for instance I can say okay my topic task I rather keep them in the file then they will be the one I can just use next year that one now learners also once they left school they give their books to their brothers and their siblings now it make it hard for you every and each year you are coming up with a new task each and every year you come up with a new task each and every year you come up with a new task that one now become a problem on practice.

Simon: Okay, any other information that you perhaps need to provide in relation to continuous assessment implementation that we have not discussed?

T02: Aaaaa, I think let this is okay apart from that one just to make it easy to just provide teachers like these are assessment for this year then next year again come with its own assessment just like that just to make sure

teachers cannot be overloaded with coming up with task coming up with task every year.

Simon: Okay, thank you very much for those responses you provided to the questions. We have come to the end of our interview and let me sincerely thank you for your time and assistance in this regard, so thank you very much.

T02: You are welcome.

END OF INTERVIEW WITH TEACHER T02

Simon: Well good afternoon once again!

T03: Good afternoon sir!

Simon: And thank you for granting me this audience to talk to you this afternoon. Let's go to the first question, can you briefly explain to me what you understand by continuous assessment?

T03: Iyaa, as when it comes to continuous assessment I understand it as a way of assessing learners to see how they are progressing and also to see where they are to find out where they are when it comes to the to what they have acquired from …and also to record some like in that continue we have to give some test to them to give some topic task just to assess their understanding how do they understand Mathematics in terms of Mathematics now.

Simon: Okay, thank you. The next question, can you please elaborate on any training received regarding the continuous assessment and its implementation in when you are responding to the question, can you also indicate who provided the training and how would you rate that training received in terms of or in relations to meeting your expectations?

T03: Iyaa, when it comes to any training I only received one training since I started teaching here it was done by the my facilitator from X office and the still even them when it come to some task they don't really understand and anyway it open me when it come to some task how to record them and what to give as a topic task and what to give as a practical investigation or a project and again when it come to that training it was not that much really useful because we still I still don't understand some of the items when it comes to assessing my learners especially the difference between project and practical investigations I do I still need training which they only provide they only train us on how to record marks in the form but they don't really explain in details what are the topic task in that form or what are the practical investigation the

difference between the practical investigation or the test, they did not really explain it comes to some of those items.

Simon: What specific issues regarding continuous assessment would you like to be addressed for improved continuous assessment implementation, in your view?

T03: Yes, in my view like in my case I want to be trained when it comes to practical investigation and project but with test I am fine I want to be somebody to explain to me what are practical investigation and what are project what is the difference between the two because to me now I still like in Mathematics I still don't know the difference between the two.

Simon: Okay, is just a follow up on that, is it really about the difference or what other issues regarding investigations and project would you like to be addressed, is it marking, is it designing it or what exactly do you want to be addressed?

T03: One is how to design those practical investigations or task two is how to assess those practical and project, okay those are one of the main things that I need training.

Simon: Okay, good can you please explain to me how continuous assessment is structured in Grade 10 Mathematics at this school?

T03: Uum yaa, like at our school now when it comes to Mathematics continuous assessment we make sure that we give enough task like topic task that I have to record and add together those task to have average we don't we don't only record one specific task but we give like we give even three task that will add up to one task then you give another three task again that will add up to another task again and now you have to record their average out of ten that is what we do and when it comes to test again if we have enough time we make sure that we give enough test like you can give three four test then you record their average again because we believe that giving the like one test and then you record that in some case it does not show the true colour of the learner or may be if one learner happen to be absent on that day now that learner will have nothing to be recorded because you only have that test that is why we make sure that we have enough test and we give average for that.

Simon: Okay, is that all that happens as far as continuous assessment is concern in the school, what about monitoring the implementation of continuous assessment?

T03: At our school like in my case is monitored by the principal, she is the one who make sure that after every week or two weeks she go to Grade 10 to

check how many activities so far I have given to the learners, task and also she have to check the number of test that I gave to the learners and if I gave less she has to inform me that I am very behind or I am doing well.

Simon: Okay, thank you. Why do you regard continuous assessment to be important or not important, in responding to this question elaborate on your experience just to motivate your answer?

T03: Iyaa, to my experience continuous assessment is very important because it is it give a picture to me as a teacher if my learners have acquired something okay and also it give me a picture that if my learner they will be capable during the exam to give me good marks or they need more help because if we don't continue assessing them you will never know when it come to your learners you know some learners they are they are good when it comes to capturing information from the teacher but some learners they are we say they are slow learners they capture on their own pace now if you assess them you will know those different learner with their different disability and you will be able to assist them according to their pace and again on one side it also I can see that it is very important to learner to be assessed also for themselves to know you know if you give them a test and then a learner get maybe a test was out twenty then a learner get five out of twenty a learner those that learner can see that Okay I need to improve or what I doing is great but if you don't assess that learner the learner will just be there until the final exam come when is when the learner is going to be assessed or is when you going to know that what you have put in together is not enough the effort you have put in throughout the year is not enough but if you assess them daily or weekly you will know that they are your learner are doing great or you need to put more effort may be you need to give remedial classes and so on.

Simon: Okay, thank you. The next question, how do you find the grade 10 Mathematics syllabus in terms of guiding you on the following issues: the first one is developing tasks or activities for continuous assessment, two grade grading these tasks or activities for continuous assessment three recording marks for continuous assessment?

T03: Okay, on the first one developing development the syllabus did not much guide a teacher on what to do even though it provides some hints that a task must be out of ten or a project must be out of fifteen it did not provide in detail how to set up even a test or how to set up a topic task it only give information like a test must be a formal one and some task must be informal or formal one but it does not have did not explain it in detail what to do as a teacher on how to set up a task and two?

Simon: Grading?

T03: Grading of continuous assessment, again it yes it gives us like when it comes to those test it must a test must be out of twenty and a task must be out of ten but sometimes when we look at a as a teacher now to give something out of ten we look at it as it as some of those task will be too short now we opt to give a task either like a test out of forty and then I can convert if I have time or I can give a task out of fifteen or out of seventeen and then I have to convert that task to the required mark by the continuous assessment document but that is how I understand it. Recording marks again for continuous assessment on one side I can say the document has limited us like it only give like test you only have to record two now to me as a teacher I don't record as the document say like two test but I can give more test and then I add those test together then I record the average, Okay and that is what I do when it comes to topic task and also sometime that is what I do when it comes to project I don't record direct from one test into the continuous assessment document but I have to give more task and give the average.

Simon: Okay, in in other words you are saying the syllabus is somehow giving out the guidance in terms of the three aspects that we have talked about that is not really enough? You feel that much or more need to be done for the document to be improved further so that these aspects are much covered in details?

T03: Yes

Simon: Okay, let move on to the next question. How helpful is the policy guide that's 1999 version which is titled towards improving continuous assessment policy and information guide, now in the context continuous assessment administration at your school?

T03: The policy of assessment like in my case I don't know if I don't have that policy towards improving continuous assessment what I have is only a subject policy is the one that I use, may be if we have it at our school may be it is it is with our principal I have never seen that toward Improving continuous assessment policy.

Simon: Okay, fair enough the next question what guiding instruments other than the syllabus do you have in place to ensure the quality of continuous assessment task or activity?

T03: Iyaa, the other document that I have in place I have scheme of work the one that was compiled by the region which provide us information in which topic to take a practical investigation and from which topic we can take project and also that document it provide me it give us a length how

many topic to can you teach in order for you give a test that is the only document that I have in place with me additional to my syllabus and study my subject policy.

Simon: Okay, thank you. The next question, how do you would you please explain to how continuous assessment is monitored in Grade 10 Mathematics to ensure adherence to national norms regulating the implementation continuous assessment at this school?

T03: Iyaa at our schools like when it comes to monitoring like in my in my case Mathematic madam have to monitor it she have to go through learners' book at the same time sometime she even have to even ask me to provide some question paper sample to check if that test is of good quality and also the other thing that are we do she also make sure that whenever we are doing markings and so on sometimes she come and check if we are the way we are marking is the correct way to mark in order for those learners to benefit to their marks and also for the teacher to give correct mark learner but not ghost marks and sometimes also when it comes to task sometimes you can give a task you can set up a test but if the madam monitor it and find out that is very low quality compared to the quality of Grade 10 then that task she can even instruct you not to record it because it is giving it that it is not contributing to the benefit of the learner the learner will not benefit anything in that sense.

Simon: Okay, alright. Another question is how do you ensure that the continuous assessment that you are implementing aa that is that includes the instruments that you use the marks that you harvest that you eventually use to compile the final continuous assessment mark for each and every learner that you send out to DNEA is valid and reliable?

T03: Iyaa, in that sense we like in Mathematic case what I usually do I make that the when I am assessing learner are the task that I am giving them are of the same quality as the standard exam the one from national in most cases I like to I prefer to use past aa question papers like in term of giving test like I have to take like 2010 question paper if I am teaching money then I will look at the question that they ask that year and then I have to compile those question then I give a test or and sometimes I do some changes aa just because some learner they have those questions already I do I can do some few changes but I make sure changes that the test my test that I giving it is of the same quality as the final exam that the learner is going to write and also now if I give such a test if a learner can score better in that test that learner can score better in the exam and now when it come to their mark the CASS mark that I will send to Windhoek it is going to reflect the true colour of the learner when it comes to the final mark that is what I usually do.

Simon: Okay, how do you ensure that the marks are reliable?

T03: Can you maybe elaborate more on that question reliable?

Simon: Okay, there are two things, first you have to make sure that the marks or the continuous assessment is valid okay. Then on the other hand you also have to make sure that is reliable. The difference is, validity has do to with assessing the competency or you base the instrument on the competency stipulated then you know your assessment is valid. Reliable, if I have to take an answer script that you have marked and mark it for the second time and arrive at different total score different from what you have given, then obviously the marks that you have recorded are not reliable. Now how do you ensure sure that your marks are reliable?

T03: Iyaa, like at our school now sometimes we don't really do like moderate somebody to come and moderate your work when you mark but as a teacher I have to ensure that when I mark a learner I mark a learner and then I go through again to see if there is somewhere that I did not mark the learner well and also before I give the task or before I before I mark the task I must make sure that I have the memo that I have to follow when I marking the learners and that memo will guide me that a learner will get this mark only if he do this and this for the learner to achieve full marks and also for me to be able to give correct marks to them an and when it comes to like end of term test those one after marking them as a teacher I have to give them to my principal again to moderate it end of term test are always moderated by the principal she I have to give the what the paper I that marked plus the memo and then she go through again to see if I have marked correctly and I have given all the mark that a learner deserve or I have or I did not give enough mark if there is any change she will instruct me to go through again if there is differences.

Simon: Okay, that is very good. The last question for this interview, based on your experience what are shortcomings within the process of continuous assessment implementation now reflecting both in national document that is the syllabus and policy and also in practice, just elaborate on these shortcomings when you are responding?

T03: Iyaa, the shortcoming when it comes to continuous assessment sometimes we only far I only the most … experience is sometimes aa aa time when I giving task I might find myself very behind because of the time that I have and also I have different other subject to cater then I might not give enough task that a learner or task that a learner supposed to have in order to be perfect ad also the other shortcoming that I have is most of the task which are in their the textbook that we have that we are using some of them are of poor qualities they don't really assess what the syllabus and scheme of work is asking they are too in other word I can say they are too

shallow they did not assess the learner deeper as per cause most of them the task that we have in those text book compared to that final exam that we have they differ they don't have that good same quality they some of those questions they are too easy and some of the task they don't have follow up question the task from the text book like how the final exam will be that is why sometimes we are forced to use other resources to like in my cases I opt for study guide for NAMCOL is the one that I opt for to avoid some of those that is what I do but mostly is task and the text book that we have and again we are we have a lot of like in my case I got a lot of textbook like I have Mathematics in context but if you look at the task that they have in that book again they are of poor quality and I have to opt for either to use for to get the task from study guide or to get from old question paper, those are some of the problem that we I face.

Simon: Okay, just a follow up on the last question probably a bit different. I have so far learned that when teachers from different schools are compiling continuous assessment or implementing continuous assessment some are assessing the phase syllabus in terms of their activity or task that they give out is covering the phase syllabus that means Grade 8, Grade 9 and Grade 10 competencies and in some cases some teachers are only assessing their learners on the Grade10 competencies. Now, what is your view as far as the implementation of continuous assessment on these two scenarios is concerned?

T03: Iyaa, on that two scenarios my view I prefer to assess in to assess my learner including the competency of Grade 8, Grade 9 and 10 I can give an example of like one of our competency in Grade 10 when it comes to money interest in Grade 10 we only teach compound interest but when it comes to other topic like simple interest that one is for Grade 9 when I am going to give them test or when I teaching them before I go to the main topic that is in my syllabus or in my scheme first I have to take them to Grade 8 and 9 what they learned from that class and even when I give them test my test have to cover those topics that are for Grade 8 and Grade 9 in that sense that when it comes to junior phase Grade 10 is a three year phase and even their exam sometimes use to ask those tower based competency for Grade 9 and 8 that is why I prefer to cover those competence.

Simon: Okay, thank you very much we have come to the end of this interview. Thank you for those responses and thank you for your time that you availed to have this audience with me, thank you very much for your assistance.

T03: You are more than welcome sir.

Simon: Alright.

END OF INTERVIEW WITH TEACHER T03

Simon: Okay, welcome to this interview teacher T07 and thank you for granting me this audience with you to talk to you about continuous assessment this afternoon.

T07: Good afternoon Sir!

Simon: The first question that I have for you is, can you briefly explain to me what you understand by continuous assessment?

T07: Thanks for the question, so I think continuous assessment that is the assessment that a teacher has to carry out throughout the year okay, so when you are talking of continuous assessment we assess learners formally and informally.

Simon: Okay, thank you for that response. The next question, can you please elaborate on any training received regarding continuous assessment and its implementation and in your response can you also indicate who provided the training and how would you rate that training in terms of meeting your expectation, if any?

T07: Yaa, I cannot recall having training about continuous assessment.

Simon: Okay, alright. Should someone organised or put together a training on continuous assessment, what specific issues regarding continuous assessment would you like to be addressed for the improved implementation of continuous assessment?

T07: Iyaa, so when one is to come up with a workshop so they must include the assessment methods of different topics like we have topics that need different assessment like in Mathematics we have construction so you cannot assess construction the same way you assess money and finance so we need different assessment methods and techniques again on how to assess different topics on which one to be assessed first before what Okay like for example you cannot assess you cannot asses money and finance before numbers first you need to assess numbers before you proceeds with money and finance.

Simon: Okay, what about assessment of investigations and project?

T07: Investigation and project I think they also depend you cannot give there are times whereby you need to give a project and there are topics you have to give investigations because like in some topics it is difficult to give an investigation so it is to be done in some topics.

Simon: So, are you saying that as far the assessment of investigations and projects are concerned, you are fine with that?

T07: Ya

Simon: Okay, thank you. Let us move on, can you please explain to me how continuous assessment is structured in Grade 10 Mathematics at this school where you are currently teaching?

T07: How is structured?

Simon: Yes.

T07: In what sense?

Simon: How is continuous assessment implemented or operationalised at this school in Grade 10 Mathematics?

T07: Okay, so what I used to do here I used to have my harvest my harvest form harvest form whereby I record all the marks of learners each and every task each and every test they are doing and according to the to the CA sheet we only have to record two task two test and two investigation so what I have to do I have to add the test together to come up with the average.

Simon: Okay, who is responsible for monitoring these continuous assessment activities that you give to your learners who monitor your assessment tools who monitor your assessment mark that you have recorded?

T07: So like in our case here the only thing which is being monitored is the assessment marks not really the assessment activity the HODs they do go through the assessment marks and activities sometimes but not that often.

Simon: And the instrument, the assessment instruments that you use are not monitored or moderated?

T07: Not really.

Simon: Okay, thank you. How do you find the Grade 10 Mathematics syllabus in terms of guiding you as a teacher on the following aspects: the first one is developing tasks or activities for continuous assessment, the second one is grading tasks or activities for continuous assessment and the third one recording marks for continuous assessment, how do you find the syllabus in terms of these three aspects?

T07: How is the syllabus in helping in what?

Simon: In guiding you, does it really or is it helpful, does it guide you as to how to approach these three activities I have mentioned?

T07: Ya, it is helping because the syllabi is the one which is stating on what is need to be assessed in a certain topic instead of just following the text book. So the syllabi is the one that is guiding on how are you going to assess a certain theme and.

Simon: Iyaa, the grading and recording?

T07: Grading and recording are…

Simon: Is it explicitly clear as to what should be done when you are grading a particular activity for continuous assessment?

T07: Iyaa, the syllabi explained everything.

Simon: Okay, the recording of marks?

T07: They are also there, iyaa the syllabi stated everything.

Simon: Okay, thank you. Why do you regard continuous assessment to be important or not important, as you respond to this question please elaborate on your experience to motivate your answer?

T07: Are I think continuous assessment is important as its helping learners to learn on how questions are being asked and as to again it is giving information to the teacher on how on which topic is difficult to the learners and on for the teachers to get to know how to help kids in some topics that that they are not performing, that is all.

Simon: Okay, I have I have seen in your file that you do not have the education or the policy towards improving continuous assessment which is a 1999 version titled toward improving continuous assessment policy and information guide my next question was going to be how helpful is this policy but I have seen you don't have it so we goanna skip that question. What guiding instruments other than the syllabus do you have in place to ensure that the quality of continuous assessment tasks and activities is ensured?

T07: We have the subject policy yaa Mathematics policy for Grade 5 to 12 that one is in the file it is also guiding

Simon: What else?

T07: and I think that is all.

Simon: Okay, a follow up question on that, how do you ensure that the continuous assessment marks that you send out to DNEA to contribute to learners' summative grade is first of all valid and secondly reliable?

T07: I think you can tell they are valid and reliable because they that is what the learner has been doing throughout the year.

Simon: Okay, let me re-phrase this or can you differentiate for me between validity and reliability, those two concepts in relation to continuous assessment?

T07: Validity and reliability, my goodness I am stuck.

Simon: Okay, let me paraphrase the question for you. For you to ensure that your continuous assessment is valid obviously you have to base your assessment activities or assessment tools on basic competencies then you are assessing the right content. Now reliability for you to ensure that your continuous assessment is reliable first of all your assessment tool must be moderated or moderated to make sure that what you are assessing is what actually need to be assessed. Okay, the marks that you have allocated are actually what the learners deserve. Now if I take one of your test papers that you have marked for the learners that you have allocated marks and re-marked it and I arrived at different mark, total mark then it means that the marks that you have harvested that you eventually averaged to contribute to learners continuous assess summative marks then is not reliable. Now my question is, how do you ensure that these marks are reliable?

T07: Haaa, but I used to I can't tell how I am just I cannot tell how to tell just because that is what they deserve I used to mark strictly and I don't think I used to give marks for nothing or not giving kids marks or something.

Simon: Okay, good, let's move on. Would you please explain how continuous assessment is monitored, we are talking about monitoring, in Grade 10 Mathematics to ensure adherence to national norms regulating the implementation of continuous assessment at this school?

T07: The what, come again?

Simon: The question is I would like you to explain to me how continuous assessment is monitored okay as process in Grade 10 Mathematics to ensure adherence okay to the national norms, the national norms is the national documents that are there that stipulate how continuous assessment need to be conducted that's the syllabus and the policy and any other instruments that you have in place to ensure that continuous

assessment that is conducted at this school in Grade 10 Mathematics is properly done?

T07: How to monitor, how we do…?

Simon: How is the monitoring done?

T07: Aaaa, but we used to submit our marks to the HODs to confirm before we finalise.

Simon: Okay, and what happens during that process, can you just narrate in details what actually happens?

T07: They go through and the when you submitting the CA sheet you have to submit it together with the harvesting sheet so they will go and compare and to how and what is what how did you come up with some marks because like in my case as I said I used to get the average because I didn't I don't only give two tests a term I give more than that so I work out the average.

Simon: Okay, so that means you submit the harvest sheet plus the CA mark sheet that is all? And how do the HODs validate now these marks that you have recorded in the harvest sheet?

T07: They do ask for the test papers for the kids, the learners.

Simon: Okay, what else?

T07: Because there are times I used to indicate in the harvest sheet that this test was written on this day so that is how they will go to get which one is this.

Simon: Okay, I will ask you this question and please you are free to express your opinion on this question. The grade 10 examination that is Mathematics in particular, covers the phase syllabus that is the content for Grade 8 for Grade 9 and for Grade 10. Now in some schools you will find that some teachers are collecting continuous assessment or harvesting continuous assessment on the phase syllabus but some teachers in other schools are only concentrating of the content for Grade 10 because they are dealing with Grade 10 this year, now what is your view on these two scenarios as far as continuous assessment is concerned?

T07: I think we need to assess kids on everything that they have been doing since grade 8 to 10 like in my case I used to revise whenever I am coming across circuit at certain topic I have to revise things that they have been doing since Grade 8 and 9 so we continue with the Grade 10 part because

according to the I mean in the exam the exam when it came it came a with everything that they have been doing since Grade 8 to 10 so even during the assessment you have to assess everything that they have been doing since Grade 8 just for them to remember just to remind them.

Simon: Okay, now what is your view on this where we have one teacher compiling continuous assessment assessing the phase syllabus only and the other teacher concentrating on Grade 10 syllabus, what is your view on this as far as continuous assessment is concerned?

T07: But I think the one who is assessing only Grade 10 work I mean Grade 10 topics only I mean yaa competencies only he or she is not that right because a kid needs to be assessed everything because when the exam is coming the exam is going to cover everything so it is good for teachers to assess everything for the phase.

Simon: Now, okay thank you. Now do you think that the continuous assessment that we receive at DNEA should really be looked at as being reliable if we have all these differences happening our schools?

T07: Will not that be reliable because you cannot tell who is assessing 8 to 10 work and who is assessing Grade 10 only.

Simon: And what is your view on the general aspects of continuous assessment having discussed that kind of situation what do you think should be done in this case then?

T07: So I think the right people those people from NIED and Ministry of Education they must conduct workshops just in case to tell us on how are we going I mean how to assess Grade 10 because like in like some of us we just get help from colleagues you ask, people how do you do it then they will tell but we you just did not receive any training on how are we on how do you have to assess, ee because like colleagues will tell no what you have to do you have to assess according to basic competencies but again you have to check the question papers because the question paper is the one which is telling of how questions are being asked in the exam but again you have to go for basic competencies and Grade 10 is covering everything that you have been doing since Grade 8 Grade 9 and Grade 10 so you really have to assess everything so is not wrong to give Grade 8 question paper to Grade 10 is not wrong to do it so we just need workshops to be trained.

Simon: Okay, now we have this case whereby teachers are using old question papers to assess their learners and these question papers are readily available in the public domain which means you may use a specific question to assess your learners yet these learners are already having this

question paper, now do you think that the marks that these learners will get because obviously they may get full marks, now do you think the at the end of the day the continuous assessment marks that is send out having all these cases into consideration will be fair and reliable?

T07: Not really and I don't if a person is just cutting and copying the same question from the question **… (interrupted)…** I don' think you can just copy and paste exactly I think you have to change numbers only some few times where you have to copy exactly and pasting but you need to change numbers.

Simon: Okay our last question, based on your experience, what are the shortcomings within the process of continuous assessment implementation both in the national document as well as in practice? So far based on your experience, what shortcomings have you taken note of as far as continuous assessment implementation is concerned?

T07: Shortcomings, what is the other word?

Simon: weakness, problems.

T07: So the only problem I think is with some like in the continuous assessment they are telling of two tests that you have to record and sometimes you give more than that so it is difficult is a bit complicated to convert to get the average as I am saying and sometimes like in the examination there are times like this examination for the cluster and circuit thing sometimes they assess kids doing Mathematics as if they are doing Additional Mathematics.

Simon: In other words you are saying they assessing competencies that that are not for that specific Grade?

T07: Umm (agreeing)

Simon: Okay.

T07: Sometimes they do that.

Simon: So and what is your view on that?

T07: They just need to tell the setters or whoever that they must set questions at the standard of the learners.

Simon: Okay, then what do you do in that case when you see that there are question assessing Additional Mathematics instead of Mathematics, what do you do in that case, in your case?

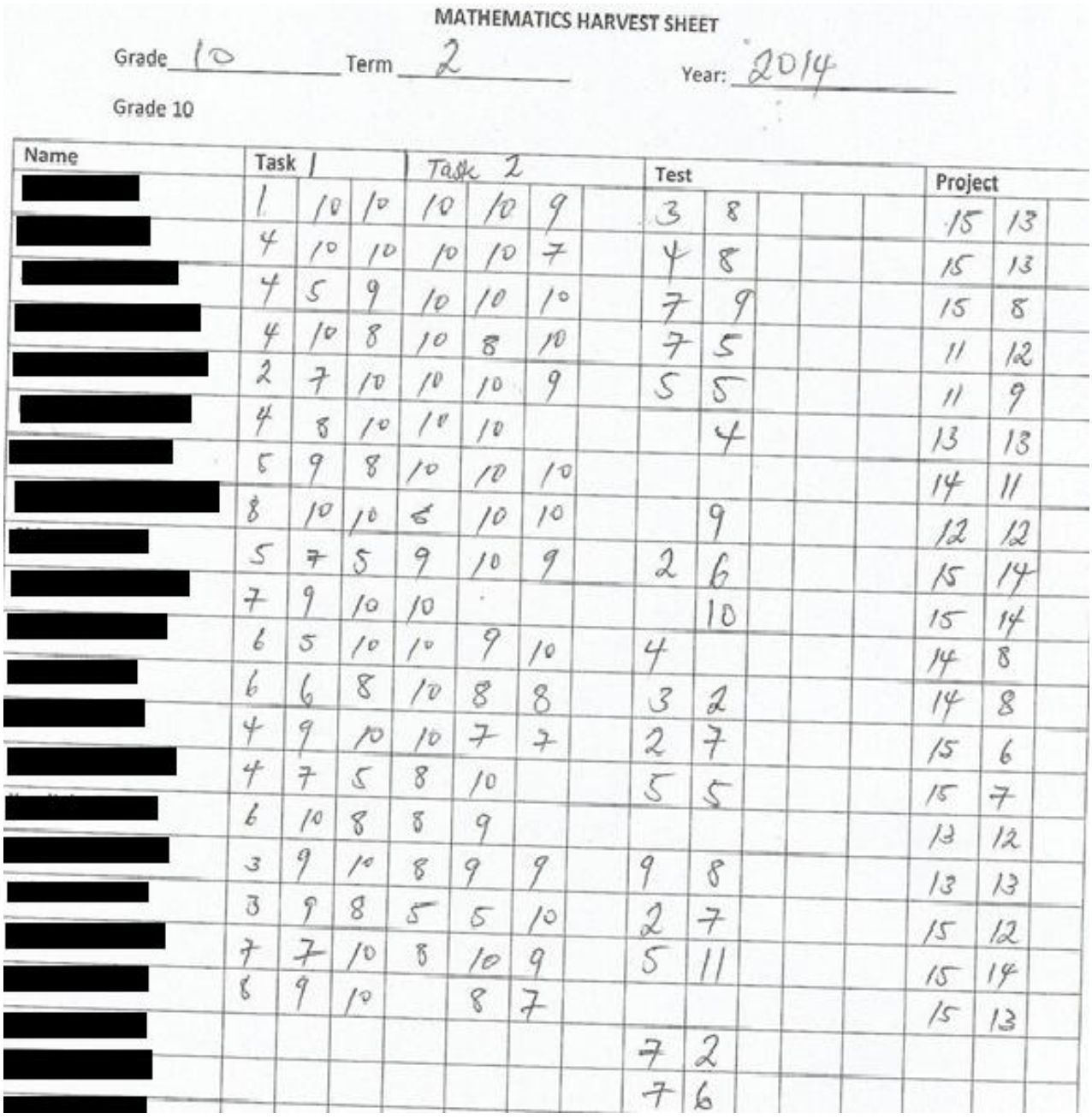
T07: I will look sometimes you have to look at the question when it is a bit a bit close to the Mathematics in general that will be fine but if it is very far I just have to subtract such marks in the exam, if it was out of hundred it will be out of ninety eight if it only two marks for Additional Mathematics question.

Simon: Okay, thank you very much we have come to the end of our interview, thank you for your time and assistance, thank you.

T07: Bye.

END OF INTERVIEW WITH TEACHER T07

Appendix H: Extract of Harvest Sheet



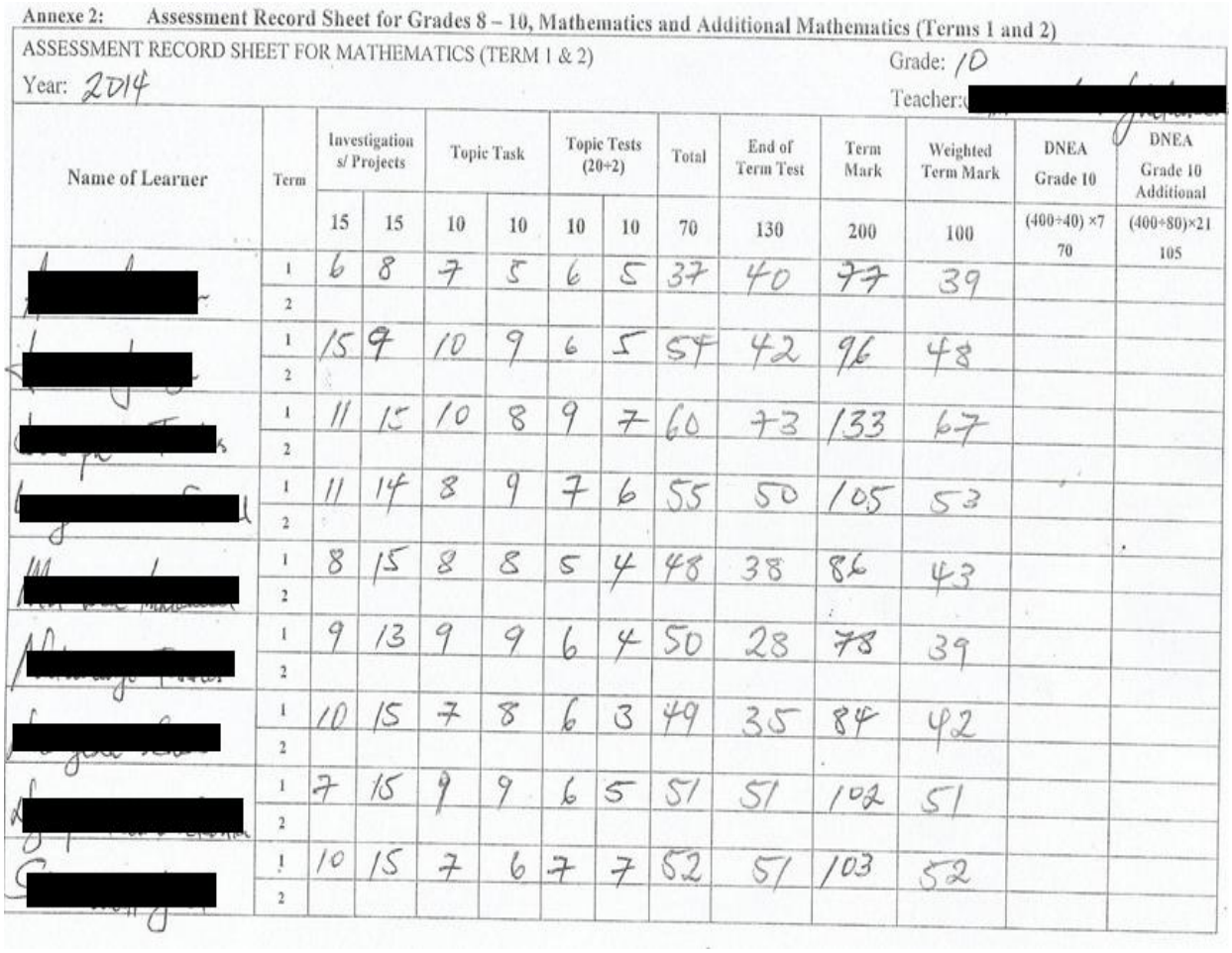
MATHEMATICS HARVEST SHEET

Grade 10 Term 2 Year: 2014

Grade 10

Name	Task 1			Task 2			Test					Project	
[redacted]	1	10	10	10	10	9	3	8				15	13
[redacted]	4	10	10	10	10	7	4	8				15	13
[redacted]	4	5	9	10	10	10	7	9				15	8
[redacted]	4	10	8	10	8	10	7	5				11	12
[redacted]	2	7	10	10	10	9	5	5				11	9
[redacted]	4	8	10	10	10			4				13	13
[redacted]	5	9	8	10	10	10						14	11
[redacted]	8	10	10	6	10	10		9				12	12
[redacted]	5	7	5	9	10	9	2	6				15	14
[redacted]	7	9	10	10				10				15	14
[redacted]	6	5	10	10	9	10	4					14	8
[redacted]	6	6	8	10	8	8	3	2				14	8
[redacted]	4	9	10	10	7	7	2	7				15	6
[redacted]	4	7	5	8	10		5	5				15	7
[redacted]	6	10	8	8	9							13	12
[redacted]	3	9	10	8	9	9	9	8				13	13
[redacted]	3	9	8	5	5	10	2	7				15	12
[redacted]	7	7	10	8	10	9	5	11				15	14
[redacted]	6	9	10		8	7						15	13
[redacted]							7	2					
[redacted]							7	6					

Appendix I: Extract of Continuous Assessment Record Sheet



Annexe 2: Assessment Record Sheet for Grades 8 – 10, Mathematics and Additional Mathematics (Terms 1 and 2)

ASSESSMENT RECORD SHEET FOR MATHEMATICS (TERM 1 & 2) Grade: 10

Year: 2014 Teacher: [redacted]

Name of Learner	Term	Investigations/ Projects		Topic Task		Topic Tests (20÷2)		Total	End of Term Test	Term Mark	Weighted Term Mark	DNEA Grade 10	DNEA Grade 10 Additional
		15	15	10	10	10	10	70	130	200	100	(400÷40) ×7 70	(400÷80)×21 105
[redacted]	1	6	8	7	5	6	5	37	40	77	39		
	2												
[redacted]	1	15	9	10	9	6	5	54	42	96	48		
	2												
[redacted]	1	11	15	10	8	9	7	60	73	133	67		
	2												
[redacted]	1	11	14	8	9	7	6	55	50	105	53		
	2												
[redacted]	1	8	15	8	8	5	4	48	38	86	43		
	2												
[redacted]	1	9	13	9	9	6	4	50	28	78	39		
	2												
[redacted]	1	10	15	7	8	6	3	49	35	84	42		
	2												
[redacted]	1	7	15	9	9	6	5	51	51	102	51		
	2												
[redacted]	1	10	15	7	6	7	7	52	51	103	52		
	2												

Appendix J: Permission Letter from Permanent Secretary

REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION

Enquiries: Mr C. Muchila
E-mail: Cavin.Muchila@moe.gov.na
Tel: +264 61 2933200
Fax: +264 61 2933922

Private Bag 13186,
WINDHOEK
Namibia

File no: 11/1/1

17 June 2014

To: Mr Simon Mupupa
P. O Bag 12026
Windhoek
Tel: 061 2933563 (W)

Dear: Mr Mupupa

SUBJECT: PERMISSION TO CONDUCT A RESEARCH STUDY IN OSHIKOTO REGION

Your correspondence regarding the subject above, seeking permission to conduct a research study in Oshikoto Region has reference.

Kindly be informed that the Ministry does not have any objection to your request to conduct a research study at identified schools in the region concerned.

You are, however, kindly advised to contact the Regional Council Office, Directorate of Education, for authorisation to go into the schools and for proper information coordination.

Also take note that the research activities should not interfere with the normal school programmes. Participation by teachers or learners should be on a voluntary basis. Should you involve minors in your research activities, consent for participation should first be obtained from the parents/guardians of the minor(s).

By copy of this letter the Regional Education Director are made aware of your request.

Sincerely yours

MINISTRY OF EDUCATION
Office of the Permanent Secretary
19 JUN 2014
Private Bag 13186, Windhoek, Namibia

19/6/14

Mr. Alfred Ilukena
PERMANENT SECRETARY
cc: Directors of Education: Oshikoto

All official correspondence must be addressed to the Permanent Secretary

Appendix K: Permission Letter from Director of Education

REPUBLIC OF NAMIBIA

OSHIKOTO REGIONAL COUNCIL
DIRECTORATE OF EDUCATION

Tel (065) 281900
Fax (065) 240315
Enq: Mr Lamek T. Kafidi

Private Bag 2028
ONDANGWA
27 June 2014

Ref: 12/2/6/1

Mr Simon Mupupa
Private Bag 12026
Windhoek
Namibia

Dear Mr Mupupa

RE: PERMISSION TO CONDUCT A RESEARCH STUDY IN OSHIKOTO REGION

1. We acknowledge receipt of your letter dated 02 June 2014, seeking for approval from the office of the Director to conduct a research study in our Region.

2. The writing of this letter therefore serves to inform you that permission has been granted to you on the following conditions, that:

   - Our office will be informed of the identified schools to be visited well in advance.
   - The research should not interfere with the normal teaching and learning process at schools.
   - Any participation in the research should be on a voluntary basis.
   - And if minors are involved in the research activities, consent for taking part should be first be obtained from the parents/guardians.

3. With that in mind, it is my wish that your research study will yield satisfactory results, in the completion of your qualification.

Yours faithfully

OSHIKOTO REGIONAL COUNCIL
Director
27 JUN 2014
Private Bag 2028
Ondangwa
DIRECTORATE OF EDUCATION

MR LAMEK T. KAFIDI
DIRECTOR OF EDUCATION
OSHIKOTO REGION

Cc: Inspectors of Education

Appendix L: Permission Letter from UNAM

☎ (+264 61) 206 3111
Website: www.unam.na

340 Mandume Ndemufayo Avenue
Private Bag 13301
Windhoek
NAMIBIA

UNIVERSITY OF NAMIBIA

Inspiring minds & shaping the future

Date: 02 June 2014

TO WHOM IT MAY CONCERN

RE: RESEARCH PERMISSION LETTER

1. This letter serves to inform that student: Simon Mupupa (Student number: 9700501) is a registered student in the Department of Curriculum, Instruction and Assessment Studies at the University of Namibia. His research proposal was reviewed and successfully met the University of Namibia requirements.
2. The purpose of this letter is to kindly notify you that the student has been granted permission to carry out postgraduate studies research. The School of Post-graduate Studies has approved the research to be carried out by the student for purposes of fulfilling the requirements of the degree being pursued.
3. The proposal adheres to ethical principles.

Thank you so much in advance and many regards.

Yours truly,

Name of Main Supervisor: **Dr C.N.S. Shaimemanya**

Signed: ----------

Dr. C. N.S. Shaimemanya

Signed: ----------

Director: School of Postgraduate Studies

Tel: 206 3523

E-mail: cshaimemanya@unam.na

Appendix M: Consent Form

CONSENT FORM

Project Title:

An exploration of teachers' implementation of continuous assessment in Grade 10 Mathematics in Oshikoto Education Region

Researcher's Particulars:

Simon Petrus Mupupa
Chief Education Officer
Ministry of Education, Government Office Park, Windhoek
Tel. 061 2933563
Cell. 081 298 429 7

1. I confirm that I have read and understand the content of the information sheet provided to me for the above mentioned study and have had the opportunity to ask questions.

2. I understand that my participation in this study is voluntary and that I am free to withdraw from it any time and at any stage of the study.

3. I agree to take part in the above mentioned study.

4. I agree to the interview being audio recorded.

5. I agree to the use of anonymised quotes in publications.

6. I avail myself and will do so for further consultations should a need arises as deemed necessary by the researcher.

……	……..	……
Name of Respondent	Date	Signature
……	……..	……
Name of Researcher	Date	Signature