

**TEACHER PREPAREDNESS FOR FORMATIVE ASSESSMENT IN
COMPETENCY BASED CURRICULUM IN PUBLIC PRIMARY SCHOOLS
IN NANDI-EAST SUB-COUNTY, NANDI COUNTY, KENYA**

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Award of Degree of Master of Education in Curriculum studies of Koitaleel
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DECLARATION

This research project is my original work and has not been submitted in any other university for the award of a degree.

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28/8/2025

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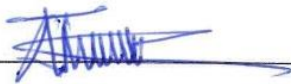
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DEDICATION

I dedicate this project to my wife Lilian Lelei and my daughters Precious Chepkorir and Prudence Chemutai for their great support, patience and understanding during my study.

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I thank God for grace and strength He gave me to pursue this study. To him be all the glory and honor. I appreciate the incredible guidance and support offered to me by my supervisors Prof. Winston Jumba Akala and Dr. Agumba M. Ndaloh. I sincerely thank them for their tireless guidance and encouragement.

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LIST OF ABBREVIATIONS

CBC:	Competency Based Curriculum
CBAM:	Concern-Based Adoption Model
CSO:	Curriculum Support Officer
ECD:	Early Childhood Development
EYE:	Early Years Education
KICD:	Kenya Institute of Curriculum Development
KEMI:	Kenya Education Management
KNUT:	Kenya National Union of Teachers
MOF:	Ministry of Finance
MOE:	Ministry of Education
SPSS:	Statistical Package for the Social Sciences
TSC:	Teachers Service Commission
TPD:	Teacher Professional Development
UNESCO:	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

The Kenyan government introduced the competency-based curriculum in its school system in 2017. In this curriculum, formative assessment plays an integral part. Teachers hold a pivotal role in the implementation of this curriculum. Their preparedness is thus of essence. In Nandi East Sub-County little is known about teacher preparedness for the implementation of the competency-based curriculum. It is in this light that the study sought to establish the extent of teacher preparedness for formative assessment in the implementation of the competency-based curriculum. The purpose of this study was to determine the extent of teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-East Sub-County. Objectives of the study included to establish the extent of teacher re-tooling program in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county; to determine the extent of teacher involvement in curriculum development in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county, to determine the effect of teacher ability to use assessment tools in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county, to examine challenges teachers experience in implementing formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county and to examine ways of enhancing teachers' capacity for formative assessment in CBC in public primary schools in Nandi-east sub-county. The study was anchored on Concern-Based Adoption Model. The study adopted convergent parallel mixed methods research design and targeted 87 head teachers, 720 public primary school teachers and one Curriculum Support Officer. The sample size was 268 selected using stratified random sampling technique and purposive sampling technique. The study adopted content validity where experts' opinion was sought to validate the contents of the research instruments. The study adopted internal consistency reliability which was tested using Cronbach's alpha co-efficient. Data collected was analyzed using descriptive statistics such as mean, standard deviation, percentages and frequencies, inferential statistic, such as, regression analysis and content analysis where qualitative data was summarized into common themes. Results were as follows; Teacher re-tooling program, teacher involvement in curriculum development and assessment tools had a positive and significant effect on level of teacher preparedness of ($\beta = .377$, $p < 0.05$), ($\beta = .491$, $p < 0.05$) and ($\beta = .420$, $p < 0.05$) respectively. Challenges that teachers experience in implementing formative assessment in competency-based curriculum are lack of classrooms for proper implementation of formative assessment, high enrolment which pressure the available resources and lack of enough textbooks for learners and reference books for teachers. The strategies used to enhance teachers' capacity for formative assessment in CBC include teachers' use of assessment information to plan and integration of classroom assessment with the instructional process for teachers. The study concluded that the success of the competency-based curriculum depends on teacher preparedness for formative assessment in competency-based curriculum. The study recommended that the schools' management should prioritize teacher's preparedness for formative assessment in competency-based curriculum for its implementation is to be successful.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Competency Based Curriculum (CBC) has been adopted in many countries worldwide due to globalization and the demand for twenty first century skills (Abdullahi, 2020). In this curriculum, learning is based on the needs as well as the potential of individual learners under a flexible framework and parameters that move and shift according to the learners' demands (Chemagosi, 2020). Competency Based Curriculum promotes hands-on training as well as infuses acquisition of new knowledge through observation, learning as you do, experiential learning and practical experimenting in order to become better at each succeeding stage (Kafyulilo *et al.*, 2022). For Competency Based Curriculum to be beneficial to all stakeholders in the education sector, teacher preparedness for formative assessment is important (Kanyonga *et al.*, 2019). Teachers should therefore be well prepared in formative assessment for the implementation of Competency Based Curriculum to be successful.

Formative assessment refers to the method that teachers use to assess students once the learning concepts have been identified (Komba & Mwandangi, 2015). Formative assessment refers to all those activities that are undertaken by teachers to assess their students (Makunja, 2015). It helps to provide information to be used as feedback that

can be used to modify the teaching and learning activities that they are engaged in (Ondimu, 2018). The assessment is known as formative assessment when the evidence is used to adapt the teaching work to meet the needs of the students (Molapo, 2018). Formative assessment is important in competence-based curriculum as it helps teachers to assess the quality of feedback from learners (Tanner & Jones, 2003). Formative assessment techniques include self-assessment, classroom assessment, peer assessment and performance-based assessment (Mugabo *et al.*, 2021). These techniques are important in the successful implementation of Competency Based Curriculum.

Once the teachers have conducted formative assessment, the results help to provide feedback to students on correction of students' mistakes from a particular assessment task (Sabola, 2017). It also helps in suggestion of more study work to students and formative assessment is known to promote cognitive thinking as well as it helps to encourage students to carry out more tasks on their own (Zhuwale & Shumba, 2017). In formative assessment, feedback is important as it helps learners to critique their learning and empower themselves to be in control of their own studies (Syomwene, 2023). Formative assessment helps teachers to make modifications as well as any improvements in their teaching style and therefore it helps to improve students' interest in the CBC programme as well as in their overall academic performance.

In most jurisdictions globally, efforts have been made to enhance teacher preparedness for formative assessment in competency based curriculum. For

example, in Singapore, a highly unified approach to teacher education has been adopted where teachers are taught on how to prepare for formative assessment in competency based curriculum (Yang & Tan, 2022). This is important for formative assessment in competency based curriculum to be a success. In Mississippi a study was conducted by Holmes (2021) which showed that 43.9% of the trainers were re-tooled having done one or two university modules. The ministry of education in Saudi Arabia has made efforts to provide the best education through formative assessment of learners (Hanan, 2021). Despite this effort, teachers still practiced assessment of learning that is characterized by content acquisition.

In Australia, teachers go through professional learning intervention aimed at equipping teachers with the skills to develop and enact portfolios as a means of classroom assessment. Teachers who successfully acquire skills in development and enactment of portfolios end-up being well equipped to conduct classroom assessment (Dayal, 2021). In South Africa, teachers go through training that helps them possess the requisite knowledge and skills to address the learning needs of their learners. Teachers are trained on how to effectively use assessment data to identify learning gaps (Kisirkoi & Kamanga, 2018).

In Rwanda, CBC has been rolled-out and in a bid to enhance successful implementation of CBC, teachers have been taken through regular intensive in-service training on how to implement the curriculum (Mbarushimana & Kuboja, 2016). Resistance to the change by some teachers is what has made the curriculum

not to be effectively implemented in some primary schools in Rwanda (Ndayambaje, 2018).

In Tanzania, a study was done by Komba and Mwandanji in 2021 to ascertain if teachers practiced assessment as required. Results showed that most of the teachers were not trained on how to carry out formative assessment strategies. They thus lacked the requisite knowledge on formative assessment. Only 50% of the teachers used formative assessment during teaching. The use of assessment rubrics posed a major challenge to teachers hence the study recommended continuous training of teachers through in-service for the same. To enhance teacher preparedness on formative assessment of CBC, teachers are usually trained on how to effectively use assessment materials and tools (Owino, 2022).

In Kenya, CBC was launched in January 2017 and in order to enhance teacher preparedness for formative assessment in the implementation of the competency-based curriculum, training on competency-based curriculum and instructional materials were provided (Kemboi & Nabwire, 2017). Teachers were taken through training that equips them with skills and knowledge on how to prepare CBC lessons plans among others. This in turn helps to enhance their skills and competencies (Ndiokubwayo *et al.*, 2021). According to Isaboke *et al.* (2021), most teachers were not conversant with the CBC program due to lack of effective training which hinders implementation process. A total of 51.7% of teachers reported that they had difficulties in using assessment rubrics even with support and 46.6% had difficulties

conducting formative assessment even with support. However, among the teachers who have been trained, a total of 53.1% indicated that they could handle various tasks on areas which they have been trained on.

Another study was carried out by Waweru (2018) to ascertain teachers' mode of assessment. The results revealed that a majority of the teachers 53.1% had difficulty in developing assessment rubrics which are activity based in order to develop learners' ability to perform specific tasks. The study recommended training of teachers on assessment rubrics and how to come up with assessment tasks.

A study was done by Otieno and Machani (2022) on Teachers' competencies in assessment of Competency-Based Curriculum among Grades 1, 2 and 3 in Langata Sub-County, Kenya. The study established that most of the teachers were not sufficiently prepared to carry-out assessment of Competency-Based Curriculum. The study further revealed that Teachers' lack of adequate understanding as well as application of formative assessment methods which prevented the students from acquiring competencies as well as the skills as per the CBC.

Teachers are key implementers of the CBC and therefore their preparedness is important in enhancement of successful implementation of CBC Curriculum (Tamara, 2023). For the teachers to be prepared for formative assessment in competency-based curriculum, various strategies should be adopted. The strategies that are used to enhance teacher preparedness for formative assessment help to enhance students' performance (Chikumba, 2022). According to Komba and

Mwandaji (2015), what affects formative assessment in CBC is lack of teacher preparedness. In Nandi-East Sub-County, competency-based curriculum is offered in public primary schools just like in private schools. However, little is known about the strategies used to enhance teacher preparedness for formative assessment in competency-based curriculum in the public primary schools in Nandi-East Sub-County. This is the focus of this study.

1.2 Statement of the problem

The implementation of Competency based curriculum is prone to many challenges worldwide. For example, in Kenya, according to Abaya (2017), not all the teachers are well prepared for implementation of formative assessment in Competency based curriculum. According to Abdullahi (2020), the challenge to effective implementation of Competency based curriculum in most public schools in Kenya is associated with teachers not fully prepared to teach CBC. The change of curricula from content based to competency-based teaching-learning approaches was meant to enhance acquisition of the twenty first century skills worldwide (Abudu & Mensah, 2016). This study sought to determine teacher preparedness for formative assessment in competency based curriculum implementation in public primary schools in Nandi-East Sub-County.

As noted by Marion (2020) the major gap in formative assessment is that competence-based assessment (CBA) lacks standardization procedures which helps to ensure that the assessment as well as scoring tools that are provided to the schools

yield the same results under the same conditions. Another shortfall associated with formative assessment in Kenya is lack of clearly documented procedures for assessment administration and marking procedures etc. (Kubai, 2023). In the North Rift region of Kenya, Kemboi and Nabwire (2020) posit that formative assessment in CBC has not been fully successful and therefore there need for assessment of the extent of teacher preparedness for assessment in competency based curriculum in public primary schools and be able to provide recommendations that might help to improve formative assessment in CBC.

In public primary schools in Nandi East Sub-County little is known about teacher preparedness for formative assessment in Competency Based Curriculum. This is what the present study sought to determine and thereafter provide policy recommendations that might be used to enhance teacher preparedness for formative assessment in competency-based curriculum in public primary schools. This study therefore sought to determine teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi-East Sub-County. This was the gap that the study sought to fill.

1.3 Purpose of the study

The purpose of the study was to establish teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-East Sub-County.

1.4 Objectives of the study

The objectives of the study were to:

- i) To establish the extent of teacher re-tooling program in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county.
- ii) To determine the extent of teacher involvement in curriculum development in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county.
- iii) To determine the effect of teacher ability to use assessment tools in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county.
- iv) To examine challenges teachers, experience in implementing formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county.
- v) To determine the strategies used to enhance teachers' capacity for formative assessment in CBC in public primary schools in Nandi-east sub-county.

1.5 Research Hypotheses

The following research hypotheses guided the study:

- H₀₁: Teacher re-tooling program has no significant effect on teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county.
- H₀₂: Teacher involvement in curriculum development has no significant effect on teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county.
- H₀₃: Teacher ability to use assessment tools has no significant effect on enhancement of teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county.

1.6 Significance of the study

The results of the study will help the Ministry of Education (MOE) to formulate policies on teacher preparedness for formative assessment in competency-based curriculum. The policies formulated will help to enhance successful implementation of competency-based curriculum in public primary schools. Teachers Service Commission (TSC) will also use findings of the study to understand the need to strengthen in-service teacher training. The study will also help TSC to come up with strategies of enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county of teacher program in Nandi-East sub-county. Teachers would find the information

useful in understanding the need to invest in quality training to provide quality instruction to the learners.

1.7 Limitations of the study

These are factors that influence results of the research. For instance, the study was dependent on honesty of the respondents to give accurate results and their cooperation to give out the data required. To mitigate this, the researcher explained to them the intention of the study and requested the respondents to provide accurate answers that represent the accurate situation in the schools. The study was done in public primary schools of Nandi-East Sub-County alone and yet CBC has been adopted in private schools as well. However, to ensure generalizability of the findings of the study to all public schools, probabilistic sampling techniques were adopted which were used to limit the level of bias and therefore enhance generalizability of findings to other public schools in Nandi County and other public schools in other Counties in Kenya and other jurisdictions around the world that have adopted CBC program. The study was done on teacher preparedness for formative assessment in competency based curriculum at public primary schools in Nandi-east sub-county alone and yet there are other sub-counties in Nandi County. The study tested only content validity which is considered a subjective measure used to determine relevant content. It lacks a definitive quantitative measure and is subject to potential expert bias. Content validity relies on expert opinion which is characterized with seeking experts opinion that varies depending on an individual or field.

1.8 Delimitations of the study

The study was delimited to focus on head teachers, teachers and the curriculum support officer. The study used both qualitative and quantitative research methods, that is, interviews and questionnaires. Indicators of teacher preparedness adopted in the study were; teacher re-tooling, teacher involvement and ability of teachers to use assessment tools, teacher challenges in formative assessment and strategies in enhancing preparedness for formative assessment.

1.9 Basic assumptions of the study

It was assumed that public primary school teachers in Nandi-East Sub-County are adequately prepared to implement formative assessment in CBC. It was also assumed that the respondents were competent to provide the most appropriate and accurate responses and that they were cooperative.

1.10 Definition of key words

The section covers contextual definition of key terms.

Assessment- process in which a teacher obtains data on performance of learners to determine their academic progress.

Competencies- refer to descriptions of what a teacher is expected to see in a learner at the end of a learning task.

Competency based curriculum- denotes an education process which champions for use of competencies in real life situation and can be assessed through formative assessment.

Formative assessment- is ongoing evaluations that are used to monitor students' learning and provide feedback for improvement of teaching and learning.

Teacher preparedness- it is teachers' readiness for the teaching profession which encompasses their knowledge and skills in teaching and creation of a learning environment that is positive.

Re-tooling program- are initiatives undertaken to equip instructors with skills and knowledge that is new for effective changes in curriculum implementation.

Assessment tools- are methods adopted for knowledge, skills and/or competencies evaluation.

1.11 Organization of the study

The study was organized into five chapters; chapter one is on introduction and it covers background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study and limitations of the study. The chapter also covers delimitations of the study, assumptions of the study, definition of key terms and organization of the study. Chapter two covers literature review and it contains empirical review, theoretical framework and conceptual framework. Chapter three is on research methodology and it covers

research design, target population, sample and sampling procedures, research instruments, data collection procedures, data analysis techniques and ethical considerations. Chapter four covers data analysis, interpretation and discussion. Chapter five covers summary of findings, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter has reviewed literature on teacher re-tooling program and enhancing teacher preparedness for formative assessment in CBC, teacher involvement in curriculum development and enhancing Teacher preparedness for formative assessment in CBC, teacher ability to use assessment tools on enhancing Teacher preparedness for formative assessment in CBC and teacher challenges. The chapter also covers both theoretical framework and conceptual framework of the study.

2.2 Teacher Re-tooling Programme and Enhancement of Teacher Preparedness for Formative Assessment in CBC

Teacher training refers to proper means of equipping teachers with knowledge, skills, attitudes and values (Kafu, 2021). It is through training that teachers can obtain appropriate feedback from learners. Teachers then use it to change their way of teaching and ultimately leads to improved performance. Teachers use formative assessment to enhance learning. Therefore, they should be trained to acquire necessary skills to carry out formative assessment and other related teaching and learning activities. In China, the Chinese government introduced National Teacher Training program (NTTP) in 2010 (MOE & MOF, 2020). This was the country's highest teacher training program. The intention was to equip the teacher in order to gain teaching skills. The content of the teacher training was intended to enable the

teacher gain subject specific knowledge, use the required teaching methods and to develop positive attitude towards teaching. This was seen to have the ability to enable improvement in the learning of the students. A lot of money was used in teacher professional development (Yan & Cheng, 2020). However, Bruns and Laque (2021) observed that there was little proof of the effectiveness of the program. In the current study, the teachers use formative assessment to enhance learning and therefore there was need to determine how it affects the academic performance of the students.

Teacher education in Singapore and South Korea is very effective due to heavy state investment in education. This was according to a study done by Yan and Tan (2022) pushed for learner-centered teacher education. They prioritized on continuous teacher education that has evolved to meet current societal needs. They focused on the highest standard of teaching to enable the high learner achievement. In Ghana, the Ministry of Education made reforms on its education system by restructuring how teachers are re-tooled. Its improvement was aimed at preparing teachers to be very competent in teaching. It was noted that high performance in learners was attributed to the level of training of the teachers (Buabeng *et al.*, 2020).

In Kenya, the Teachers Service Commission (TSC) coordinates CBC teacher training to enable to acquire the 21st century skills and competencies. These include; critical thinking and innovation, communication skills and collaboration, digital literacy, cooperation, and leadership. This has been achieved through collaboration with other

stakeholders by using a smart cascade approach. The master trainers were identified from educational agencies such as the commission itself, MOE, KISE, CEMASTE, KIE and KICD (Amunga *et al.*, 2020). The training has helped teachers acquire skills required for successful formative assessment. This study sought to determine how this has an effect on the level of teacher preparedness.

The continuous capacity building aims to equip CSOs, CBC champions and teachers with requisite knowledge, skills, attitudes and competency for effective implementation of the system, Curriculum Based Assessment and ICT integration. It also provides a common understanding of concepts of CBC, CBA and ICT integration in teaching and learning. It also aims at enhancing teachers understanding of the implementation of guidelines on new content and fresh learning areas (Sogo, 2022).

A study was done by Njagi (2020) on impact of instructor readiness on execution of CBC. The results of the study indicated that 52 of 83 teachers who took part in the study equivalent to 71% understood formative assessment as they reported back to learners after the assessment. Up to 29% of teachers in the study required re-tooling on formative assessment. A methodological gap exists as the study had not provided justification for sampling techniques adopted in the study which this study seeks to provide. In Nairobi, most teachers were trained but the time set aside for the training was too short. At most, the two weeks of training was not enough to effectively cover much content on CBC. This rendered most teachers incompetent to undertake

CBC. More in-service training should have been conducted for teachers (Sitienei, 2020). Time spent to train teachers of CBC is important as the training itself. Teachers have different training needs and a training done for a longer period contributes to all teachers being able to acquire all the skills required for formative assessment to a success. The current study sought to determine how training needs affects' the affects the level of teacher preparedness.

Another study was done by Andiemba (2020) in public primary schools in Kapseret sub-county of Nandi County, Kenya to assess teacher capacity to assess special needs learners. The sample size was 69 special needs teachers. Data was collected using questionnaires. The outcomes showed that 32 (46.4%) of the teachers understood the need to use pre-formative assessment on learners before starting a unit, aimed at determining what the learners know about the unit. 47.8 % of the teachers reported to be using the pre-assessment activities to know the type of the learner. A total of 34 teachers equivalent to 49.3% did not adequately understand and apply formative assessment methods. A conceptual gap existed as workshops were not within the scope of the study which this study sought to add and therefore enhance the existing body of knowledge on the subject matter.

According to KICD report (2023) and TSC (2023) on status of teacher's orientation on CBC for Early Years Education (EYE), considerable efforts have been made on the training of teachers and the curriculum support officers. Master trainers trained in the period between 27th Nov and 19th December 2017 were 71 both for primary and

pre-primary schools. Trainer of Trainers (TOTs) were 180 and 327 sub-county ECD coordinators, 3360 CSOs, 168,000 head teachers and teachers were targeted for early years education training. From the foregoing, studies have reported the inadequacy in training of teachers who are actual implementers of the new curriculum. It was therefore necessary to carry out a study in Nandi-East Sub-County to find out on teacher re-tooling program in enhancing implementation of assessment in CBC.

2.3 Teacher Involvement in Curriculum Development and Enhancement of Teacher Preparedness for Formative Assessment in CBC

Teachers determine the extent of implementation of any curriculum in schools. If teachers do not feel the need to accept changes in a new curriculum, then the changes may not be properly carried out (Porter, 2015). When teachers are involved in the initial stages of curriculum change, they will own the change and therefore support fully its implementation. According to Alsubale (2016), curriculum development and implementation at every level becomes successful when teachers are involved. Teachers are crucial because of their knowledge, competence and experience. They form the center stage of any curriculum implementation and therefore should be involved in its development. Alsubale (2016), further noted that if the curriculum is developed by other bodies other than teachers being involved, it becomes difficult for teachers to implement the same curriculum.

When a teacher is involved at the initial stages of education reforms, then the reform becomes successful (Handler, 2010). This is attributed to the fact that they advise on development of materials such as textbooks. They also align content to suit the need of the learner in the classroom. Teachers are required to have knowledge in curriculum development process to be allowed to take part in curriculum improvement. This therefore becomes a hindrance to teachers' involvement. In the Netherlands, Gulikens *et al.* (2021), carried out a study to examine teachers and students' perception of formative assessment activities used by teachers. Most teachers accepted and used formative assessment activities to clarify expectations and to elicit students' response. However, most teachers did not use formative assessment activities to adjust teaching. This was attributed to teachers not being involved in its development. Teachers still find it difficult to translate formative assessment theory into practice. This study sought to determine how the use of formative assessment activities affects the level of teacher preparedness..

A study was done in Zimbabwe by Dube and Jita (2018), on curriculum development and implementation. The study found that for teachers to be involved, they should have attained a certain minimum level of professional development. Teachers failed to take responsibility of their work because of non-conducive work relations. There was lack of dialogue between the educational stakeholders. This made the teachers to harbor a feeling that they were at the receiving end. Teachers also had a notion that the new changes were made to add more work and stress hence they resisted and

sabotaged the curriculum. A contextual gap existed as the study had been conducted in a different geographical setting.

In Zambia, a study by Mwanza (2017) revealed that teachers were not engaged in curriculum innovation. This led to teachers having challenges during the implementation. Teachers' views had to be incorporated during the development process. The study recommended for teacher involvement in research, communication and visit to the schools. A conceptual gap in formative assessment existed as the study had not considered content development which this study sought to add. According to Chale (2018), teacher participation in curriculum development, lack of expertise and clear framework of participation posed a major challenge. The content could not reflect the objectives due to low teacher involvement. The study revealed that teachers were only involved in implementation but not in curriculum review and change process.

Teachers in Rwanda indicated positive appreciation of CBC (Nsengimana, 2021). However, a few teachers argued that during curriculum development, they did not give their concerns. Up to 78.2% of the teachers observed that they faced challenges on implementation and that was blamed on the quick start of the curriculum before teachers were sufficiently prepared. Fullan (2007) observed that for proper implementation of a curriculum more time is required to equip the teacher.

In Kenya, Nyamai (2020) examined Teachers' influence in Curriculum Development in Kenya. The purpose of the study was to determine the influence of Teachers in

Curriculum Development in Kenya. The study established that teachers were inadequately inducted during the process of curriculum development in Kenya. The study further revealed that most of the teachers were not satisfied with the current curriculum development approach that was used by the KICD. The study recommended that there was need for KICD to involve teachers in curriculum development. A conceptual gap exists as the study had not incorporated situation analysis which this study seeks to incorporate.

This study sought to examine Teacher involvement in curriculum development and Teacher Preparedness for Formative Assessment in CBC in Nandi East Sub County and therefore find-out the opinions of respondents on the subject matter and make recommendations that might help to enhance Teacher preparedness for formative assessment in CBC in Kenyan schools.

2.4 Teachers' ability to use Assessment Tools and Enhancement of Teacher Preparedness for Formative Assessment in CBC

Assessment tools are instruments used by a teacher to collect evidence from the learners to inform on learning. KICD (2016) points out assessment tools to include, observation schedule, checklists, rating scales, rubrics, questionnaires, portfolio, project method, journaling, progress report card, written continuous assessment tests and homework. CBC advocates for frequent formative assessment of learners to determine their acquisition of competencies and learner progress (Joseph *et al.*, 2020). In this connection, teachers have to be equipped with the competencies such

as communication, subject matter knowledge, professionalism, assessment and digital literacy which enable them to use the assessment tools effectively.

The use of rubrics has been valued by teachers in different parts of the world. A rubric is used by teachers to assess learners in a transparent way. Learners will benefit from a well-made rubric to know their progress (Saeed *et al.*, 2018). In Spain, rubrics are used for assessment of competencies in learners. A study was conducted by Velasco-Martiner and Tojar-Hurtado (2018), on Competency evaluation in higher education. Teachers were not in a position to assess all the faculties at the same rate. Attitudes and values were not frequently evaluated at 4% and the highly evaluated were skills and knowledge at 60.7%. The study recommended that educators be trained on competency evaluation in higher education. A methodological gap existed as the study had used descriptive survey research design and had not justified its choice and hence a gap existed which this study sought to address.

Importance of rubrics has been realized by learners as well. According to Chowdhury (2019), learners appreciated the rubrics submitted together with assignments and projects as more useful at 88%. Rubrics submitted after grading were useful at 10%. The performance of learners who used rubrics performed better than those who never used it. Despite the noted importance of rubrics on learners' performance, most teachers remain unaware of rubrics and their enormous benefits. They still used personal judgments which are biased.

Portfolios are assessment tools that show collection of students work. According to Arumugham (2019), teachers showed different understanding of portfolios. Two out of five purposively selected understood portfolio as learners work collection. Two others understood it as a tool for giving feedback and one as a tool for instruction. It is necessary to equip teachers with information regarding portfolio assessment for them to gain knowledge on the subject matter. According to KICD (2021), a portfolio contains sampled work of a learner that assesses different competencies that is acquired overtime. It provides information on students' self-assessment and goal statements. It helps the learners to trace their academic progress. A learner and a teacher work together to decide on what should be included in the portfolio file and review how learners should develop and maintain their portfolios.

According to Isaboke *et al.* (2021), in Nairobi County a total of 51.7% of teachers reported to have had difficulties in using assessment rubrics even with support and 46.6% of the teachers had difficulties in conducting formative assessment even with support. However, a majority of teachers who had been trained indicated that they could handle various tasks on areas which they have been trained on. A contextual gap existed as the study had been conducted in a different geographical setting from where this study was done.

Another study was conducted by Waweru (2022), on teacher preparedness to implement CBC, to ascertain preparedness the study focused on assessment in CBC and the results revealed that teachers had difficulties in designing assessment rubrics.

In addition, teachers had difficulty in designing suitable rating scales. Komba and Mwandaji (2021), advised for continuous in-servicing of teachers to enhance their capacity on the use of rubrics that is a scoring guide that is used to evaluate the performance of the students' as well as be able to guide student learning.

KICD report (2018) on piloting program of CBC, found out that most teachers 86.4% experienced challenges on the assessment modes while only 13.6% of the teachers were okay in the use of assessment tools. The challenge experienced by teachers was that applying the tools took a longer period and the duration allocated was not enough. Teachers also had challenges in grading of learners' work using rubrics. Another challenge was that it was not enough to know that a learner had acquired knowledge on some content without making a follow up to ascertain if the learner can perform a real-life task (KICD, 2017). Teachers are supposed to be conversant with assessment tools in CBC to enable them assess their learners correctly and without being biased. This is evident from the studies highlighted. It was equally necessary to carry out this study in public primary schools in Nandi-East Sub-County to find out teachers' ability to use the formative assessment tools on implementation of formative assessment in CBC.

2.5 Challenges teachers experience in implementing formative assessment in CBC

Teachers' implementation of formative assessment in CBC is marred with challenges. Lack of teachers' empowerment in setting assessments in the CBC

curriculum is minimal (Hu & Lam, 2019). Teachers' should be empowered in such contexts for the objectives of rolling-out of CBC in schools to be realized.

Successful implementation of formative assessment in CBC is influenced by how empowered the teachers are (Amunga *et al.*, 2020). This can be addressed when teachers receive sufficient training as well as continuous professional development (Mulenga & Kabombwe, 2019). When teachers lack the confidence needed to use CBC assessment, it goes a long way in having a negative effect on development of the skills needed in implementation of formative assessment in CBC (Rahman, 2021). More training as well as coaching adoption helps to address lack of confidence in implementation of formative assessment in CBC and therefore enhance teachers' experience in implementation of formative assessment in CBC (Opondo *et al.*, 2023).

In Bangladesh, Musa and Islam (2020) researched on the problems that teachers face in applying formative assessment in the classroom. They found out that the challenges teachers experience in implementing formative assessment in CBC include lack of sufficient experience on how to apply different techniques of formative assessment. Another challenge is that teachers' lack a clear understanding about formative assessment and how to apply portfolio, assessment rubrics, and how to apply debate in class for specific content. The study recommended that teachers should sufficiently be taught on how to apply different techniques of formative assessment. Teachers should be enlightened on what formative assessment is as some had no sufficient knowledge on what it is and that the teachers should be taught

on how to apply portfolio, assessment rubrics, and debate in class for specific content.

In Asia, Do Quyen and Khairani (2017) reviewed the challenges of implementing formative assessment with the bias on the need for a professional development program. Out of the total studies reviewed in the study, 80 percent revealed that at micro level, inadequate knowledge of formative assessment among teachers affected effective implementation of formative assessment in CBC. The study recommended that teachers should be adequately trained through effective professional development programs.

In Kenya, a study was conducted by Isaboke *et al.* (2021) on the challenges facing implementation of the Competency Based Curriculum. The aim of the study was to determine the challenges teachers' face when implementing Competency Based Curriculum. The study established that teachers experience in implementing formative assessment in CBC is affected by lack of adequate training of teachers on how to implement formative assessment in CBC, lack of adequate teaching-learning materials, and ignorance. The study recommended that adequate teaching-learning materials should be provided to cater for the high enrollment in public pre-primary schools. The study also recommended that teachers should be adequately trained on how to implement formative assessment in CBC, and should be enlightened not to be ignorant.

A study was conducted by Waruingi *et al.* (2022) on assessment of challenges faced by Principals in the implementation of the Competency-Based Curriculum in Public Primary Schools in Kenya. The study was conducted in Kiambu County, involving 15 deputy principals as well as 15 deputies. Findings revealed that the quality of training for teachers was not as per the required standard which is in-tandem with the CBC policy guidelines. The study recommended that teachers should receive adequate training so as to improve the quality of training for teachers to the standard required as stipulated in the CBC policy guidelines.

Diana (2020) examined the challenges experienced by educators in the implementation of Competency Based Curriculum Programme in Kenya. The study was done in Primary Schools in Laikipia East Sub County. The study established that lack of adequate instructional materials was an impediment against the ability of teachers' to successfully implement formative assessment in CBC. The study also established that infusing digital literacy was a major challenge for most of the teachers and the teachers needed support to effectively deliver digital literacy. Findings revealed that most of the teachers found it hard to teach digital activities and instructional materials needed for digital learning were insufficient as well as not all the teachers were competent to use digital learning. The study recommended that sufficient instructional materials should be provided to all teachers and specialist teachers should be used to teach subjects that requires specialized skills as well as knowledge.

From the foregoing, studies have revealed that a lot of challenges are encountered by teachers to successfully execute curriculum in schools. This study therefore sought to find out the strategies put in place to overcome the challenges teachers encounter when implementing formative assessment in public primary schools in Nandi- East Sub-County.

2.6 Strategies used to enhance Teachers' capacity for Formative Assessment in CBC

Teachers should have knowledge in assessment of cognitive, psychomotor and affective domains, (Stiggins, 2022). They should understand the principles of assessment such as; validity, reliability, fairness, accessibility and flexibility (KICD 2016). Teachers use assessment information to plan as well as adapt instruction, (Lim & Tan, 2019). Integration of classroom assessment with the instructional process for teachers to understand as well as reinforce student learning goes a long way in enhancement of Teachers' capacity for formative assessment in CBC (Boud & Falchikov, 2022).

In Europe and Central Asia, the UNICEF Regional Office has developed a package of support for teachers which include; educator's digital competencies framework as well as five sets of teacher professional development modules which help to enhance teachers' capacity for formative assessment in CBC (UNICEF, 2021). According to Waweru (2023), competency based instructional materials should be delivered to schools to provide a guideline to teachers on how to guide students.

A study was conducted by Otieno and Machani (2022) on Teachers' competencies in CBC assessment in Langata Sub-County, Kenya. The findings revealed that most of the instructors were not knowledgeable to carry-out formative assessment. In order to enhance Teachers' capacity for formative assessment in CBC, adequate training should be done regularly to orient the teachers on the various methods of assessment of students in the classroom.

Andiema (2020) researched on Teacher's competencies in evaluation of CBC among special students abled differently in Kenya. The findings revealed that teachers require regular adequate training on formative assessment methods (Handwe & Mpofu, 2017). A study was done by Momanyi and Rop (2020) on Teacher preparedness for the CBC implementation in Kenya. On ways of enhancing teachers' capacity for formative assessment in CBC, the study stated that how teachers' are prepared, affects CBC implementation. In Nandi East Sub-County, studies on strategies of enhancing teachers' capacity for formative assessment in CBC were few and yet challenges are experienced with implementation of Formative Assessment in CBC in the region.

2.7 Theoretical framework

The study adopted the Concern-Based Adoption Model (CBAM) by Hall *et al.* (2006). According to the proponents of this model, successful implementation of a new program goes beyond provision of materials as well as resources. When implementing a new curriculum, the most important factor which is normally

overlooked is the human element which usually comprises of programme implementers (Handwe & Mpofu, 2017). As noted by Kafyulilo *et al.* (2012), the success of CBC implementation goes beyond materials provision as well as resources and it includes CBC implementers.

The model also reveals that new programmes in learning institutions exist for a while and there-after are changed without little improvement mostly attributed to implementation that is faulty (Makunja, 2016). As opined by Kimosop (2019), the model suggests that before making a conclusion on the effectiveness of a new programme it is important for the education leaders to assess the degree of fidelity that the programme implementers have as well as their level of expertise. This implies that successful implementation of a new Curriculum depends on implementers' competency. Teachers should acquire necessary knowledge as well as skills for formative assessment if the Curriculum is to be implemented in schools in an effective manner. It will also enhance teacher preparedness for formative assessment in Competency Based Curriculum (Konokman & Yelken, 2017). Teachers who acquire necessary skills for formative assessment in CBC are able to improve students' performance.

Assumptions of the model included; it takes time for change to be instituted as it happens to be a process and not an event. This is to imply that effective implementation of CBC in schools takes time (Manduku *et al.*, 2017). The model also assumes that if change is to be enhanced in learning institutions, the focus

should be on programme implementers as change cannot take place without institutions members change (Mbarushimana & Kuboja, 2016). Teachers who are the key players in Curriculum implementation should be the center of focus if implementation of CBC is to be successful. It is important to find-out how teachers are implementing the new Curriculum. It is good to find-out whether the teachers are competent enough to conduct formative assessment in CBC among others (Mandukwini, 2016). The model assumes that change is a personal experience and outcome is affected by how individuals perceive change.

Teachers' perceptions on the CBC are most likely to differ among teachers which make them implement CBC Curriculum in a different manner (Mwarari *et al.*, 2020). It also assumes that individuals progress through different stages in regard to their emotions as well as capabilities regarding new program implementation (Molapo, 2018). It states that teacher's acceptance of as well as their ability to implement CBC fully differs among all teachers (Ndiokubwayo *et al.*, 2021). It also assumes that individuals responsible with the change process should work in a systematic as well as adaptive manner where they need to monitor progress closely (Momanyi & Rop, 2019). The government should therefore monitor CBC implementation in schools. The model informed this study because it talks about Teachers acquiring necessary knowledge as well as skills for formative assessment if Curriculum is to be implemented in schools in an effective manner.

2.8 Conceptual Framework

This section gives a link between both the independent variable and dependent variable as shown in figure 2.0. According to Gupta, and Gupta (2022) conceptual framework provides a clear presentation of research questions that are being discussed in the problem statement.

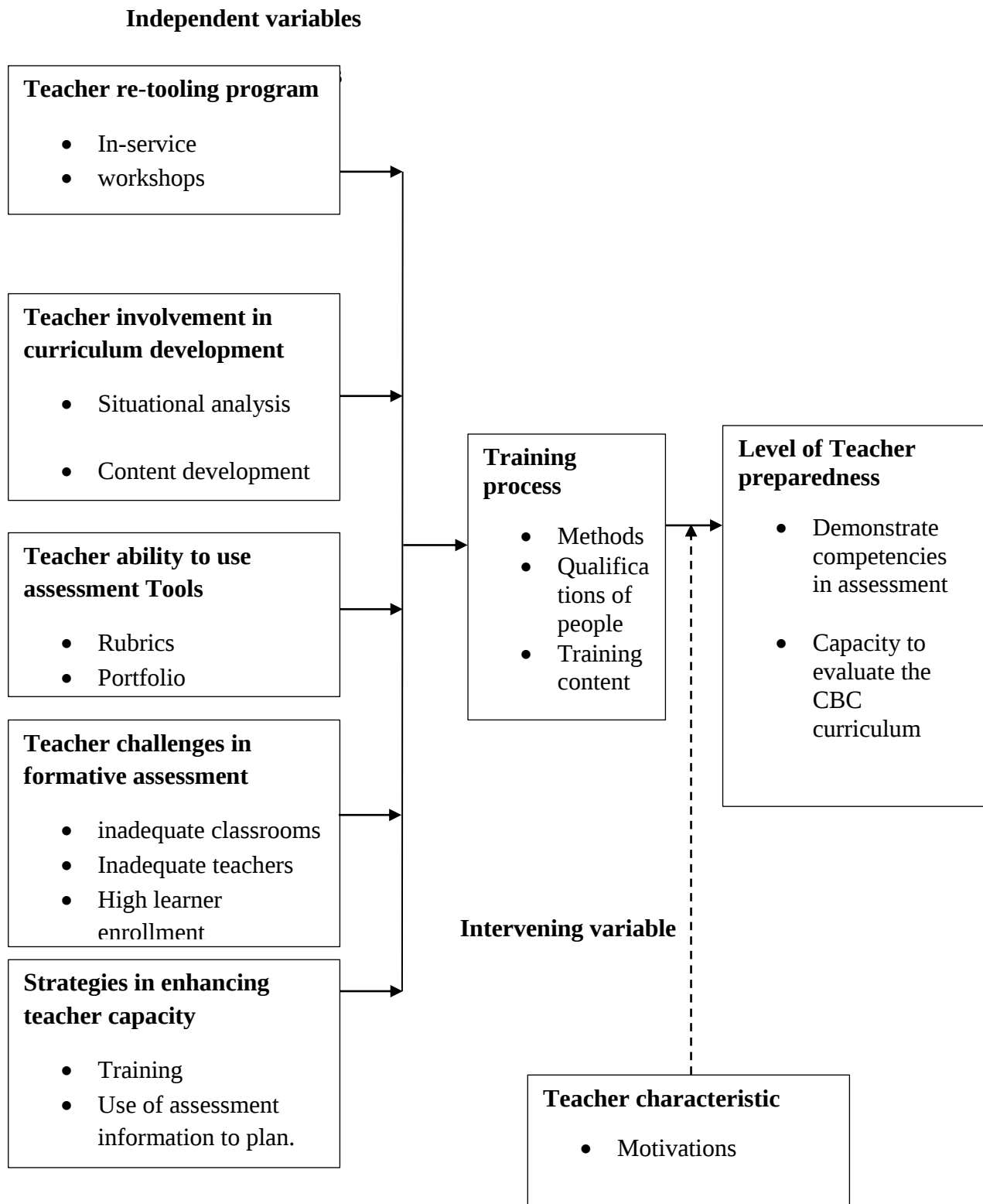


Figure 2.1: Conceptual Framework

The independent variables were teacher re-tooling program, teacher involvement in curriculum development, assessment tools, teacher challenges and teacher enhancement. The dependent variable was level of teacher preparedness. The intervening variable was teacher characteristics whose sub-indicator include; motivations. Intervening variables were controlled through adoption of statistical control method of regression analysis and ensuring consistent conditions across the study groups. Assessment tools were examined on the ability of teachers to use them during assessment. The ability of the tools to provide immediate and appropriate feedback to the learners on their performance and to teachers on what the learners know and what needs to know shall be also be examined. Every indicator was examined through competency-based approach in formative assessment. Teacher re-tooling program, teacher involvement in curriculum development, assessment tools and teacher challenges affect the level of teacher preparedness.

2.8 Summary of reviewed literature

Literature has been reviewed on strategies in enhancing teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools. Various gaps have been identified in the literature reviewed which included contextual gaps, conceptual gaps and methodological gaps. Each strategy reviewed in this study had shown the importance of adoption of strategies for the sake of enhancing teachers' preparedness for formative assessment for CBC. Most of the studies reviewed were done in schools in different jurisdictions around the world and

not Nandi East Sub-County which was the study area where the current study was conducted.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents methodology used to carry out the study. It consist of research design, target population, sample and sampling procedures, research instruments, data collection procedures, data analysis techniques, ethical considerations and chapter summary.

3.2 Research design

According to Pandey and Pandey (2021) a research design is a plan that is carefully prepared to shape the research and make it workable to enable research questions be answered based on the findings. The study adopted convergent parallel mixed methods research design. It is a type of a research design that allows collection of quantitative and qualitative data at the same time but analysis is done separately. When the analysis is done, the results are compared for a conclusion to be made (Gupta & Gupta, 2022). It therefore facilitated collection of large volumes of data on strategies in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-East Sub-County. This design was adopted because it allows for the collection of quantitative and qualitative data at the same time, however, analysis is done separately.

3.3 Target population

The Nandi East sub-county has 87 public primary schools. Hence the target population for the study consisted of all 87 head teachers, 720 public primary school teachers and one Curriculum Support Officer (CSO). The head teachers were selected by the researcher since they are the school managers and were of greater help in providing information on preparedness of teachers in their schools. Primary school teachers were selected since they have been handling learners on CBC. The CSO's was selected as they oversee curriculum implementation and are believed to be in a better position to provide the required information on teacher preparedness. Public primary schools were considered for this study since they have similar characteristics. They all receive funding from the government to do structures and receive teachers employed by TSC.

3.4 Sample and sampling procedures

A sample is a representative of the population while sampling is a process of selecting subjects from a population (Nayak & Singh, 2021). The sample size was 268 respondents determined using Yamane's (1967) sample size determination formula because the formula offers an approach that is straightforward for determination of sample size in circumstances where the population is known or finite.

$$n = \frac{N}{1 + N(e)^2} = \frac{808}{1 + 808(0.05)^2} = 268$$

The formula that was used to allocate the stratum samples is as follows.

$$n_h = n(N_h/N)$$

Where;

h relates to the stratum number.

n_h relates to the sample size in stratum h .

N_h relates to the population size in stratum h , where $h = 1-4$

N relates to the total population size.

n relates to the total sample size.

The sample size is shown in Table 3.1.

Table 3.1: Sample size

Respondents	Population	Sample size
Male Head teachers	55	18
Female Head teachers	32	11
Male Primary school teachers	386	127
Female Primary school teachers	334	111
Curriculum support officer	1	1
Total	808	268

The study employed both probability and non-probability sampling techniques. Stratified random sampling was used to stratify the respondents into male and female head teachers and male and female primary school teachers. The respondents (male and female head teachers and teachers) were selected from each strata using simple random sampling. Purposive sampling was used to sample 1 CSO in Nandi-East sub-county who was interviewed. This is because the CSO oversees the curriculum implementation process and is in a better position to provide information on the state of teacher preparedness in the sub-county.

3.5 Research instruments

Questionnaires and interview guide was used in the study. Questionnaires were used in this study since they provide factual information on the state of things by obtaining views and opinions of the respondents. Two sets of questionnaires were used for head teachers and teachers respectively and the study used both open and closed ended questions. Open ended questions provided information that was not obtained from the closed ended (Mishra & Alok, 2022). A total of 267 questionnaires were presented to both head teachers and teachers. It consisted of two parts; part 1 was on the demographic information and part 2 assessed teachers' preparedness on re-tooling program, challenges that teachers' face, teacher involvement in curriculum development and the use of assessment tools.

Interview guide was used to get information from Curriculum Support Officer (CSO) on all the objectives adopted in the study. The interview guide was used in the

collection of additional data on the subject matter that helped in explaining further the extent of teacher preparedness for formative assessment in CBC. An interview guide is a type of a document that guides interviewers on what to ask about and in what order (Nayak & Singh, 2021). Unstructured interviews were adopted where the respondent was required to provide explanatory answers.

3.6 Instrument validity

According to Bairagi and Munot (2019), validity is achieved when an instrument achieves its intention. The study adopted content validity because it shows how accurately a test or other measurement method taps into the various aspects of the specific construct being researched on (Davidavičienė, 2018). It also helps the researcher know whether the research instrument measures all aspects of the construct that the study intends to measure (Zangirolami-Raimundo *et al.*, 2018). Content validity of the instruments testing was meant to assess whether all the content covers all the areas that were intended. Face validity was checked on whether the instrument is relevant, reasonable, and unambiguous and clear (Taherdoost, 2016). The researcher sought the opinion of the experts', that is, supervisors as well as education experts from the ministry of education on the questionnaire contents. Their opinion(s) were used to improve on the questionnaire so as to enhance validity.

3.7 Instruments reliability

According to Mohajan (2018), reliability of an instrument is its dependability, constancy and replicability overtime. Reliability is achieved when an instrument gives similar results when it is presented different times. The study used internal consistency reliability which was measured using Cronbach's alpha co-efficient. The Cronbach alpha formula is

$$\alpha = \frac{N c}{v + (N-1)c}$$

Where, N- is equal to the number of items, c – is the average inter-item covariance and v is the average variance. According to Gupta and Gupta (2022), the Cronbach's alpha co-efficient should be above or equal to 0.70. In this study, reliability test facilitated removal of ambiguities, confusion, as well as improvement of wording which helped to make sure that the questionnaire measures what it purports to measure. If, Cronbach's alpha co-efficient is equivalent to 0.7 it implies that 70% of the variation in respondents scores is due to real differences in their 'true scores' that is valid variance while the remaining 30% is attributable to errors of measurement. In a nutshell, the higher the Cronbach's alpha co-efficient the less error, or uncertainty, there is in the test results. The Cronbach's Alpha co-efficient was 0.755 (75.5%) which was above the recommended Cronbach' alpha co-efficient of either greater than or equal to 0.70 as shown in Table 3.2.

Table 3.2: Reliability Analysis of Each Variable

Item	No. of items	Cronbach's alpha
Teacher re-tooling program	5	0.7624
Teacher involvement in curriculum development	4	0.7150
Teacher ability to use assessment tools	5	0.7331
Teacher pedagogical challenges	5	0.7855
Strategies used to enhance teachers' capacity for formative assessment	4	0.7778
Total	23	0.755

3.8 Data collection procedures

A letter from Koitaleel Samoei University College was obtained by the researcher which highlighted the purpose of the study. A research permit from National Commission for Science, Technology and Innovation, (NACOSTI) was obtained as well. The permit allowed the researcher to carry out the research. Later, the researcher visited the selected schools and collected data with the aid of the research instruments prepared. The researcher then administered the questionnaire to the respondents and conducted interviews with the CSO.

3.9 Data analysis procedures

Data analysis is the process of sorting and processing raw data for understanding and transmission, (Mwanyuli, 2008). The study collected both quantitative and qualitative data. Quantitative data that was collected via questionnaire and analyzed using descriptive statistics (mean, frequencies, percentages and standard deviation). Statistical Package for Social Sciences (SPSS version 25.0) aided in analysis. Qualitative data that was collected from the interview schedule was analyzed using content analysis where data was summarized into common themes. Data presentation was undertaken through frequency tables and narrative themes. The regression model that was adopted in this study is as follows;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y represents the dependent variable (enhancement of teacher preparedness).

α represents the intercept (regression constant).

β_1 represents the change in y for each increment change in X_1

β_2 represents change in y for each increment change in X_2

β_3 represents change in y for each increment change in X_3

X_1 represents teacher re-tooling program

X_2 represents teacher involvement in curriculum development

X_3 represents teacher ability to use assessment tools

ε represents the error term

The outcomes of the analysis process were presented using tables, charts, frequency distribution tables, percentages and tabulating them accordingly.

3.10 Ethical considerations

A research permit from NACOSTI and a letter from the university were obtained to undertake the research in public primary schools of Nandi-East Sub-County. Permission was sought from sub-county education offices to be allowed to carry out the study in the schools. The head teachers were informed of the study visitation to their schools through a written letter. The respondents were informed of their free will to participate. The researcher assured them that the data they give will be only for the study and that their identities would remain confidential. Anonymity was upheld in the study and acts of plagiarism were avoided. Participants were allowed to withdraw from the study at any time. Participation in the study did not expose the respondents to any potential risk whether physical and/or psychological.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

The chapter covers response rate, background information of the respondents and descriptive statistics findings on teacher re-tooling program and teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-East Sub-County. Teacher involvement in curriculum development and teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-East Sub-County; Teacher ability to use assessment tools and teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-East Sub-County and the challenges teachers, experience in implementing formative assessment in competency-based curriculum in public primary schools in Nandi-East Sub-County. The findings are presented using frequency tables and charts.

4.2 Participant's response rate

Response rate refers to the total number of people who answer a survey divided by the total sample size (Gupta & Gupta, 2022). Response rate is usually expressed as a percentage. When the response rate is low it can lead to sampling bias. This is when non-response is not equal among study participants in regards to outcome or exposure (Patel & Patel, 2019). In this study, two sets of questionnaires were used,

that is, questionnaire for head teachers and teachers. In regards to questionnaires issued to the teachers, a total of 238 questionnaires were issued to the teachers and only 207 questionnaires were returned. This represented a response rate 87.0%. In regards to questionnaires issued to the head teachers, a total of 29 questionnaires were issued to the head teachers and only 23 questionnaires were returned. This represented a response rate 79.3% as shown in Table 4.1.

Table 4.1: Response rate

Category	Questionnaires issued	Questionnaires returned	Response rate
Teachers	238	207	87.0%
Head teachers	29	23	79.3%

According to Nayak and Singh (2021), a good response rate should be 60% and above and researchers should aim at a response rate of 60% and above. In this study, both the questionnaires for teachers and head teachers were above 60% and therefore further analysis could be done.

4.3 Background information of the respondents

The background information of the respondents considered in this study was described by the variables of age, gender, highest education qualification and teaching experience. Distribution of the respondents (teachers) by age. Findings were presented in Table 4.2.

Table 4.2: Distribution of respondents (Teachers) by Age

		Frequency	Percent
Age	Below 25	8	3.9
	25-30	11	5.3
	30-35	92	44.4
	35-40	45	21.8
	Above 40	51	24.6
Total		207	100.0

As evident in Table 4.2, 8(3.9%) of the respondents were 25 years and below, 11(5.3%) between 25 to 30 years, 92(44.4%) between 30 to 35 years, 45(21.7%) between 35-40 years and 51(24.6%) above 40 years. The respondents who participated in this study were of different age groups which enhanced diversity of opinions which improved the quality of the findings and the study. The study also sought to determine the distribution of respondents (Head Teachers) by Age and findings were presented in Table 4.3.

Table 4.3: Distribution of respondents (Head Teachers) by Age

		Frequency	Percent
Age	30-35	1	4.4
	35-40	3	13.0
	Above 40	19	82.6
Total		23	100.0

As evident in Table 4.3, 1 (4.4%) of the respondents were aged between 30 to 35 years, 3(13.0%) between 35-40 years and 19 (82.6%) above 40 years. The respondents who participated in this study were of different age groups which enhanced diversity of opinions which improved the quality of the findings and the study. The study also sought to determine the distribution of the respondents (teachers) by gender which had been operationalized using either male or female. Findings were presented in Figure 4.1.

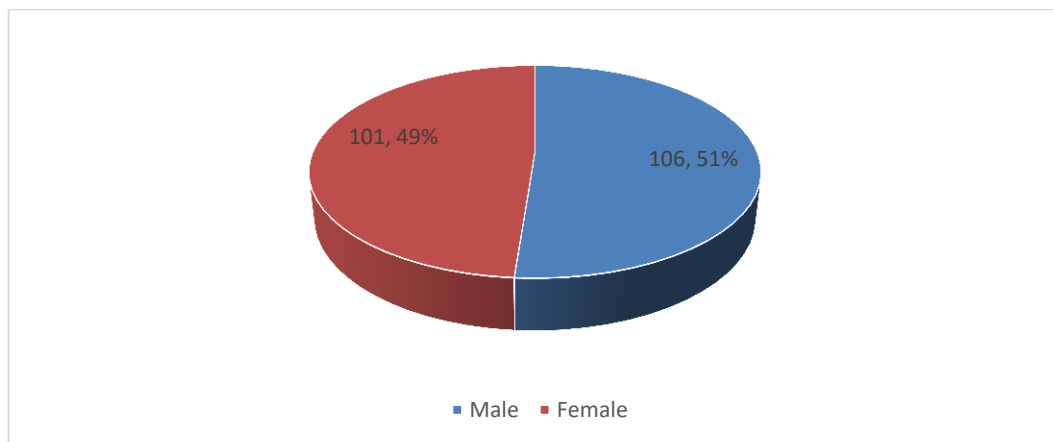


Figure 4.1: Distribution of respondents (Teachers) by Gender

Findings as per Figure 4.1 shows that out of the total respondents (Teachers), 106 (51%) were male while 101(49%) were female. This implies that Teachers of both genders participated in the study and therefore this enhanced diversity of opinions that contributed to improvement of quality of the study. The study also sought to determine the distribution of the respondents (Head teachers) by gender which had been operationalized using either male or female. Findings were presented in Figure 4.2.

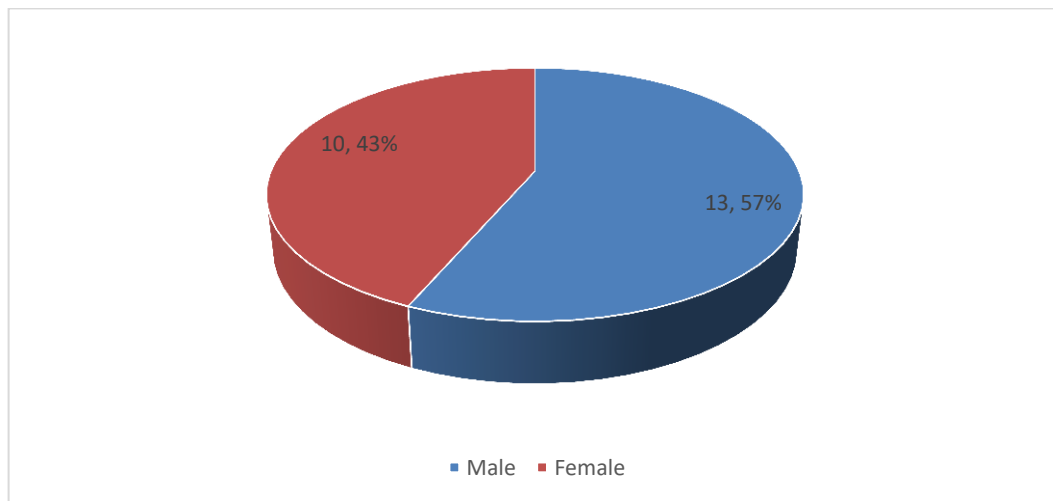


Figure 4.2: Distribution of respondents (Head Teachers) by gender

Findings as per Figure 4.2 shows that out of the total respondents (Head Teachers), 13 (57.0%) were male while 10(43.0%) were female. This implies that Head Teachers of both genders participated in the study and therefore this enhanced diversity of opinions that contributed to improvement of quality of the study. The study also sought to determine the distribution of respondents (teachers) by Highest

Education Qualification which had been operationalized using certificate, diploma, bachelors, masters and doctorate. Findings were presented in Table 4.4.

Table 4.4: Distribution of respondents (teachers) by Highest Education Qualification

		Frequency	Percent
Highest education qualification	Certificate	78	37.7
	Diploma	58	28.0
	Bachelors	59	28.5
	Masters	12	5.8
Total		207	100.0

As evident in Table 4.4, 78(37.7%) of the respondents (Teachers) had certificate level of education, 58(28.0%) diploma level of education, 59(28.5%) bachelors and 12(5.8%) masters. This implies that all the respondents were well educated and therefore could understand and be able to provide the information needed on Teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi East Sub-County. The study also sought to determine the distribution of respondents (Head teachers) by Highest Education Qualification which had been operationalized using certificate, diploma, bachelors, masters and doctorate. Findings were presented in Table 4.5.

Table 4.5: Distribution of respondents (Head Teachers) by Highest Education Qualification

		Frequency	Percent
Highest education qualification	Certificate	5	21.7
	Diploma	10	43.5
	Bachelors	6	26.1
	Masters	2	8.7
Total		23	100.0

As evident in Table 4.5, 5(21.7%) of the respondents (Head Teachers) had certificate level of education, 10 (43.5%) diploma level of education, 6(26.1%) bachelors and had 2(8.7%) masters. This implies that all the respondents were well educated and therefore could understand and be able to provide the information needed on Teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi East Sub-County. The study also sought to determine the distribution of respondents (Teachers) by teaching experience. Findings were presented in Figure 4.3.

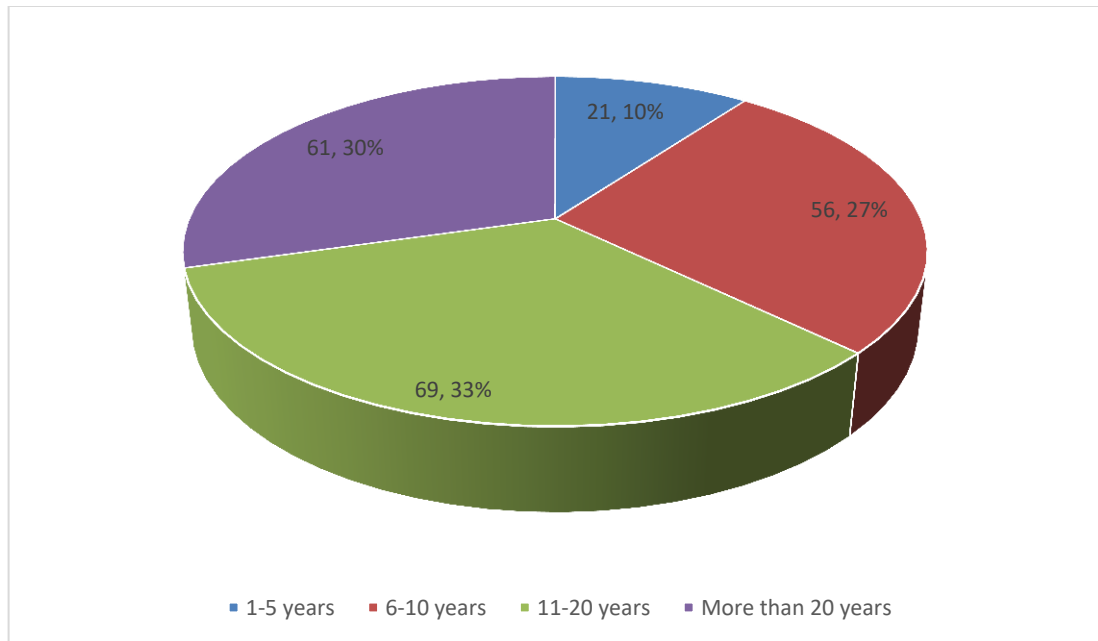


Figure 4.3: Distribution of respondents (Teachers) by teaching experience

As evident in Figure 4.3, 69(33%) of the respondents (Teachers) had a teaching experience of between 11 to 20 years, 56(27%) between 6 to 10 years, 61(30%) more than 20 years and 21(10%) between 1 to 5 years. All the respondents (Teachers) who participated in the study had enough teaching experience and therefore understood and were in a position to provide the information needed on Teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi East Sub-County. The study also sought to determine the distribution of respondents (Head Teachers) by teaching experience. Findings were presented in Figure 4.4.

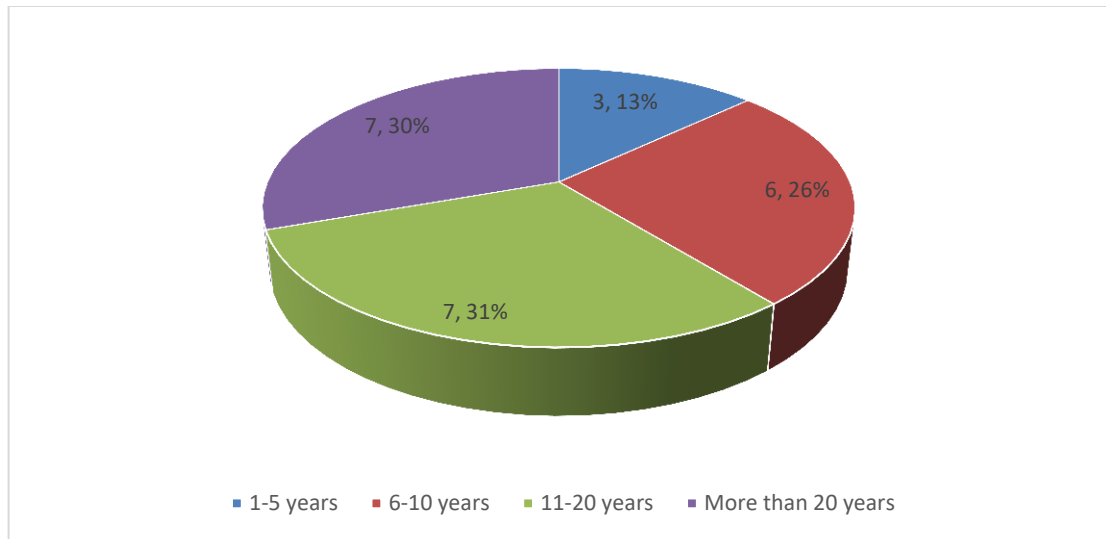


Figure 4.4: Distribution of respondents (Head Teachers) by teaching experience

As evident in Figure 4.4, 7(30%) of the respondents (Head Teachers) had a teaching experience of between 11 to 20 years, 6(26%) between 6 to 10 years, 7(30%) more than 20 years and 3(13%) between 1 to 5 years. All the respondents (Head Teachers) who participated in the study had sufficient teaching experience and therefore understood and were in a position to provide the information needed on Teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi East Sub-County. This helped to enhance diversity of opinions which contributed to improvement of the quality of the study.

4.4 Teacher Re-tooling Program and Enhancement of Teacher Preparedness for Formative Assessment in CBC

The first objective of the study sought to establish the extent of teacher re-tooling program in enhancing teacher preparedness for formative assessment in competency-

based curriculum in public primary schools in Nandi-East Sub-County. To achieve this objective, two sets of questionnaires and an interview guide were used to collect data from the respondents. The questionnaire that was administered to the teachers sought to establish whether a teacher had attended Competency Based Curriculum in-service training on formative assessment, the duration of the training was enough to enable teachers implement formative assessment in classroom and whether the teacher (s) had enough training on learner assessment in CBC. The study also sought to determine from the teacher whether the teachers' content knowledge influences how teachers assess learners and whether teacher qualifications influence implementation of formative assessment in CBC. Findings were presented in Table 4.6.

Table 4.6: Teachers Responses on Teacher Re-tooling Program and enhancement of Teacher preparedness for Formative Assessment in CBC

n=207		S. A	A	N	D	S. D	Mean	Std. Dev
I have attended Competency Based Curriculum in-service training on formative assessment.	F	113	60	12	11	11	1.7778	1.11864
	%	54.6	29.0	5.8	5.3	5.3		
The duration of the training was enough to enable me implement formative assessment in classroom.	F	30	24	11	58	84	2.8164	1.30537
	%	14.5	11.6	5.3	28.0	40.6		
I have enough training on learner assessment in CBC	F	11	11	12	94	79	1.8696	1.09162
	%	5.3	5.3	5.8	45.4	38.2		
Teachers' content knowledge influences how teachers assess learners.	F	77	103	5	11	11	1.9855	1.04500
	%	37.2	49.8	2.4	5.3	5.3		
Teacher qualifications influence implementation of formative assessment in CBC.	F	107	30	24	23	23	2.1546	1.43644
	%	51.7	14.5	11.6	11.1	11.1		

On whether the Teachers had attended Competency Based Curriculum in-service training on formative assessment, 173(83.6%) agreed while 22 (1.1%) disagreed. Teachers attendance of Competency Based Curriculum in-service training on formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=1.7778, std. Dev. = 1.11864). Findings agree with that of Yan and Cheng (2020) that Teacher's attendance of Competency Based Curriculum in-service training on formative assessment enhance Teacher preparedness for Formative Assessment in CBC. In regards to whether the duration of the training was enough to enable teachers implement formative assessment in the classroom, 54 (26.1%) agreed while 142(68.6%) disagreed. The duration of the training to implement formative assessment in classroom was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.8164, std. Dev.= 1.30537). The study is in agreement with that of Bruns and Laque (2021) that adequate duration of training on implementation of formative assessment in classroom enhances Teacher preparedness for Formative Assessment in CBC.

The research sought to determine whether the respondents had enough training on learner assessment in CBC, 173 (94+79) (83.6% (45.4%+38.2%) disagreed while 22 (11+11), (10.6%, 5.3%+5.3%) agreed. Having enough training on learner assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=1.8696, std. Dev.= 1.09162). Findings agree with that of Yan and Tan (2022) that having enough training on learner assessment in

CBC enhances Teacher preparedness for Formative Assessment in CBC. On whether Teachers content knowledge influences how teachers assess learners, 180(87.0%) agreed while 22(10.6%) disagreed. On how teachers content knowledge influences how teachers assess learners was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=1.9855, std. Dev.= 1.04500). Findings are in-tandem with that of Buabeng et al. (2020) that Teachers content knowledge influencing how teachers assess learners enhance Teacher preparedness for Formative Assessment in CBC.

As evident in Table 4.4, 137(66.2%) agreed that Teacher qualifications influence implementation of formative assessment in CBC while 46(22.2%) disagreed. Teacher qualifications influencing implementation of formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.1546, std. Dev.= 1.43644). The study agrees with that of Amunga et al. (2020) that Teacher qualifications influencing implementation of formative assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC.

The second set of questionnaires were administered to the head teachers and it sought to establish whether head teachers had attended Competency Based Curriculum in-service training on formative assessment, whether the duration of the training was enough to enable head teachers implement formative assessment in classroom and whether the head teacher (s) had enough training on learner

assessment in CBC. The study also sought to determine from the head teachers whether the head teachers' content knowledge influences how they assess learners and whether their qualifications influence implementation of formative assessment in CBC. Findings were presented in Table 4.7.

Table 4.7: Head Teachers responses on Teacher re-tooling program and enhancement of teacher preparedness for formative assessment in CBC

n=23		S. A	A	N	D	S. D	Mea n	Std. Dev
I have attended Competency Based Curriculum in-service training on formative assessment.	F	12	6	1	2	2	1.9565	1.33070
	%	52.2	26.1	4.3	8.7	8.7		
The duration of the training was enough to enable me implement formative assessment in classroom.	F	5	2	2	3	11	2.6522	1.22877
	%	21.7	8.7	8.7	13.0	47.8		
I have enough training on learner assessment in CBC.	F	2	2	1	10	8	2.0435	1.29609
	%	8.7	8.7	4.3	43.5	34.8		
Teachers content knowledge influences how teachers assess learners.	F	17	4	0	1	1	2.1304	1.25424
	%	73.9	17.4	0.0	4.3	4.3		
Teacher qualifications influence implementation of formative assessment in CBC.	F	11	4	2	3	3	2.2609	1.51410
	%	47.8	17.4	8.7	13.0	13.0		
On whether the head teachers had attended Competency Based Curriculum in-service training on formative assessment, 18(78.3%) agreed while 4 (17.4%)								

disagreed. Teachers attendance of Competency Based Curriculum in-service training on formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=1.9565, std. Dev.= 1.33070). The study is in agreement with that of Sogo (2022) that Teacher's attendance of Competency Based Curriculum in-service training on formative assessment enhances Teacher preparedness for Formative Assessment in CBC. In regards to whether the duration of the training was enough to enable implementation of formative assessment in classroom, 14 (60.9%) disagreed while 7(30.4%) agreed. The duration of the training on implementation of formative assessment in classroom was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.6522, std. Dev.= 1.22877). Findings agree with that of Njagi (2020) that having enough duration of training on implementation of formative assessment in classroom enhance Teacher preparedness for Formative Assessment in CBC.

The respondents sought to determine whether the respondents had enough training on learner assessment in CBC, 18 (78.3%) disagreed while 4 (17.4%) agreed. Having enough training on learner assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.0435, std. Dev.= 1.29609). The study agrees with that of Andiemma (2020) that having enough training on learner assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC.

On whether Teachers content knowledge influences how teachers assess learners, 21 (91.3%) agreed while 2 (8.7%) disagreed. Teachers content knowledge influencing how teachers assess learners was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean= 2.1304, std. Dev.= 1.25424). Findings are similar to that of Buabeng et al. (2020) that Teachers content knowledge influencing how teachers assess learners enhance Teacher preparedness for Formative Assessment in CBC. As evident in Table 4.7, 15 (65.2%) agreed that Teacher qualifications influence implementation of formative assessment in CBC while 6 (26.1%) disagreed. Teacher qualifications influencing implementation of formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.2609, std. Dev.= 1.51410). The study is in agreement with that of Yan and Cheng (2020) that Teacher qualifications influencing implementation of formative assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC. The Curriculum support officer who was interviewed stated that;

“Teachers were effectively trained to implement formative assessment in CBC. The duration of teacher training was enough to equip them with the competencies to successfully implement formative assessment.”

4.5 Teachers' Involvement in Curriculum Development and Enhancement of Teacher Preparedness for Formative Assessment in CBC

The second objective of the study sought to determine the extent of teacher involvement in curriculum development in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. To achieve this objective, two sets of questionnaires and an interview guide were used to collect data from the respondents. The questionnaire that was administered to the teachers sought to establish whether teachers were inducted on organization and management of formative assessment, in development of formative assessment materials in CBC and whether teachers were willing to participate in the development of formative assessment in CBC. The study also sought to determine whether teachers had enough qualifications which allowed them to be involved in CBC curriculum development. Findings were presented in Table 4.8.

Table 4.8: Teachers responses on Teachers' involvement in curriculum development and enhancement of teacher preparedness for formative assessment in CBC

n=207		S. A	A	N	D	S. D	Mean	Std. Dev
I was involved in formulation of CBC on formative assessment	F	45	20	25	78	39	2.4686	1.42370
	%	21.7	9.7	12.1	37.7	18.8		
I was involved in development of formative assessment materials in CBC	F	33	32	24	65	53	2.5845	1.45860
	%	15.9	15.5	11.6	31.4	25.6		
I am willing to participate in the development of formative assessment in CBC.	F	95	34	25	24	29	2.3140	1.48878
	%	45.9	16.4	12.1	11.6	14.0		
I have enough qualifications which allows me to be involved in formative assessment of CBC.	F	20	85	21	57	24	2.9034	1.23867
	%	9.7	41.1	10.1	27.5	11.6		

As evident from Table 4.8, 117(56.5%) disagreed that they were involved in formative assessment of CBC while 65(31.4%) agreed. Inclusion in formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.4686, std. Dev.= 1.42370). The study is in agreement with that of Alsubale (2016) that getting involved in formative assessment in CBC helps to enhance Teacher preparedness for Formative Assessment in CBC. Findings as per Table 4.8 shows that 118(57.0%) disagreed that

they were involved in development of formative assessment materials in CBC while 65(31.4%) agreed. Getting involved in development of formative assessment materials in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.5845, std. Dev.= 1.45860). Findings concur with those of Dube and Jita (2018) that getting involved in development of formative assessment materials in CBC enhance Teacher preparedness for Formative Assessment in CBC.

As evident from Table 4.8, 129(62.3%) agreed that they were willing to participate in the development of formative assessment in CBC while 53(25.6%) disagreed. Willingness to participate in the development of formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.3140, std. Dev.= 1.48878). The study is in-tandem with that of Mwanza (2017) that willingness to participate in the development of formative assessment in CBC enhances Teacher preparedness for Formative Assessment in CBC. In regards to whether the respondents had enough qualifications which allows them to be involved in development of CBA, 105(50.7%) agreed while 81(39.1%) disagreed. Having enough qualifications to be involved in development of CBA was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.9034, std. Dev.= 1.23867). Findings agree with that of Chale (2018) that having enough qualifications which allow teachers to be involved in CBC curriculum development enhance Teacher preparedness for Formative Assessment in CBC.

The second set of questionnaires were administered to the head teachers and sought to establish whether teachers were involved in the development of formative assessment materials in CBC and whether teachers were willing to participate in the development of formative assessment in CBC. The study also sought to determine whether teachers had requisite qualifications which allow them to be involved in CBC curriculum development. Findings were presented in Table 4.9.

Table 4.9: Head Teachers responses on Teachers' involvement in curriculum development and enhancement of teacher preparedness for formative assessment in CBC

n=23		S. A	A	N	D	S. D	Mean	Std. Dev
I was involved in formative assessment in CBC.	F	5	3	3	8	4	2.6087	1.49967
	%	21.7	13.0	13.0	34.8	17.4		
I was involved in development of formative assessment materials in CBC.	F	4	4	2	7	6	2.6522	1.52580
	%	17.4	17.4	8.7	30.4	26.1		
I am willing to participate in the development of formative assessment in CBC.	F	10	4	2	3	4	2.4348	1.59049
	%	43.5	17.4	8.7	13.0	17.4		
I have enough qualifications which allow me to be involved in development of CBA.	F	3	9	3	6	2	2.7826	1.24157
	%	13.0	39.1	13.0	26.1	8.7		

As evident in Table 4.9, 12 (52.2%) disagreed that they were involved in formulation of CBC on formative assessment while 8 (34.8%) agreed. Getting involved in formulation of CBC on formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.6087, std. Dev.= 1.49967). The study is in agreement with that of Nsengimana (2021) that getting involved in formulation of CBC on formative assessment enhance Teacher

preparedness for Formative Assessment in CBC. Findings as per Table 4.9 shows that 13 (56.5%) disagreed that they were involved in development of formative assessment materials in CBC while 8 (34.8%) agreed. Getting involved in formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.6522, std. Dev.= 1.52580). Findings agree with that of Nyamai (2020) that getting involved in development of formative assessment materials in CBC enhance Teacher preparedness for Formative Assessment in CBC.

As evident from Table 4.9, 14 (60.9%) agreed that they were willing to participate in the development of formative assessment in CBC while 7(30.4%) disagreed. Willingness to participate in the development of formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.4348, std. Dev.= 1.59049). The study agrees with that of Mwanza (2017) that willingness to participate in the development of formative assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC. In regard to whether the respondents had enough qualifications which allows head teachers to be involved in development of CBA, 12 (52.2%) agreed while 8 (34.8%) disagreed. Having enough qualifications to be involved in development of CBA was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.7826, std. Dev.= 1.24157). The study agrees with that of Dube and Jita (2018) that having requisite qualifications which allows teachers to be involved in development of CBA enhance Teacher preparedness for

Formative Assessment in CBC. The Curriculum support officer who was interviewed stated that;

“Public primary school teachers were effectively involved during the development of CBC and formative assessment. Teachers have enough qualifications that are needed in CBC curriculum development.”

4.6 Extent of Teacher Use of Assessment Tools in Formative Assessment and Enhancement of Teacher Preparedness for Formative Assessment in CBC

The third objective of the study sought to determine the effect of teacher ability to use assessment tools in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. The findings are as follows; to achieve this objective, two sets of questionnaires and an interview guide were used to collect data from the respondents. The questionnaire that were administered to the teachers sought to establish whether teachers have knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps and to use portfolios to obtain feedback from learners to identify their learning gaps. The study also sought to determine whether the teachers frequently used assessment rubrics and portfolio to assess learners and whether teachers frequently use portfolios to assess learners. The study also sought to determine whether teachers have difficulties in the use of assessment rubrics to assess learners and whether rubrics given together with assignment to learners is

more useful than rubrics given after the assignment. Findings were presented in Table 4.10.

Table 4.10: Teachers responses on the Extent of teacher use of assessment tools in formative assessment and enhancement of teacher preparedness for formative assessment in CBC

n=207		S. A	A	N	D	S. D	Mean	Std. Dev
I have knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps.	F	61	59	11	64	12	1.7826	1.13893
	%	29.5	28.5	5.3	30.9	5.8		
I have knowledge to use portfolios to obtain feedback from learners to identify their learning gaps.	F	86	30	20	11	60	1.9034	1.03358
	%	41.5	14.5	9.7	5.3	29.0		
I frequently use assessment rubrics to assess my learners.	F	78	26	21	71	11	2.0870	1.16676
	%	37.7	12.6	10.1	34.3	5.3		
I frequently use portfolios to assess my learners.	F	65	46	11	81	12	1.6763	1.12197
	%	31.4	22.2	5.3	39.1	5.8		
I help my learners to develop portfolios and guide them on what contents to be included in the portfolio.	F	53	71	29	33	21	2.5072	1.30298
	%	25.6	34.3	14.0	15.9	10.1		
I have difficulties in the use of assessment rubrics to assess learners.	F	17	51	37	69	33	3.2415	1.22261
	%	8.2	24.6	17.9	33.3	15.9		

As evident in Table 4.10, 120(58.0%) agreed that they had knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps while 76(36.7%) disagreed. Having knowledge to use assessment rubrics to obtain

feedback from learners to identify their learning gaps were further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=1.7826, std. Dev.= 1.13893). Findings agree with that of Saeed et al. (2018) that having knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps enhance Teacher preparedness for Formative Assessment in CBC. On whether the teachers have knowledge to use portfolios to obtain feedback from learners to identify their learning gaps, 116(56.0%) agreed while 71(34.3%) disagreed. Having knowledge to use portfolios to obtain feedback from learners to identify their learning gaps was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=1.9034, std. Dev.= 1.03358). The study agrees with that of Velaso-Martiner and Tojar-Hurtado (2018) that having knowledge to use portfolios to obtain feedback from learners to identify their learning gaps enhance Teacher preparedness for Formative Assessment in CBC.

On whether teachers frequently use assessment rubrics to assess learners, 104(50.2%) agreed while 82(39.6%) disagreed. Frequently using assessment rubrics to assess learners was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.0870, std. Dev.= 1.16676). Findings agree with that of Chowdhury (2019) that frequently using assessment rubric to assess learners enhance Teacher preparedness for Formative Assessment in CBC. As evident in Table 4.10, 111(53.6%) agreed that they frequently use portfolios to assess their learners while 93(44.9%) disagreed. Frequently using portfolios to assess learners was further established to enhance Teacher preparedness for Formative

Assessment in CBC with (mean=1.6763, std. Dev.= 1.12197). Findings agree with that of Arumugham (2019) that frequently using portfolio to assess learners enhance Teacher preparedness for Formative Assessment in CBC.

As evident in Table 4.10, 124(60.0%) agreed that they help their learners to develop portfolios and guide them on what content to be included in the portfolio while 54(26.1%) disagreed. Helping learners to develop portfolios and guiding them on what contents to be included in the portfolio was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.5072, std. Dev.= 1.30298). Findings concur with that of Isaboke et al. (2021) that helping learners to develop portfolios and guiding them on what contents to be included in the portfolio enhance Teacher preparedness for Formative Assessment in CBC.

In regard to whether teachers have difficulties in the use of assessment rubrics to assess learners, 68(32.8%) disagreed while 102(49.3%) agreed. This implies that majority of the respondents revealed that teachers have difficulties in the use of assessment rubrics to assess learners with (mean=3.2415, std. Dev.= 1.22261). Findings agree with that of Waweru (2022) that majority of the teachers have difficulties in the use of assessment rubrics to assess learners.

The second set of questionnaires that were administered to the head teachers and the study had sought to determine whether the head teachers frequently used assessment rubrics to assess learners and whether head teachers frequently used portfolios to assess the learners. The study also sought to determine whether head teachers help their learners to develop portfolios and guide them on what content to be included in

the portfolio. The study also sought to determine whether head teachers have difficulties in the use of assessment rubrics to assess learners and whether rubrics given together with assignment to learners is more useful than rubrics given after the assignment. Findings were presented in Table 4.11.

Table 4.11: Head Teachers responses on the Extent of teacher use of assessment tools in formative assessment and enhancement of teacher preparedness for formative assessment in CBC

n=23		S. A	A	N	D	S. D	Mean	Std. Dev
I have knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps.	F	7	5	2	7	2	2.0000	1.34840
	%	30.4	21.7	8.7	30.4	8.7		
I have knowledge to use portfolios to obtain feedback from learners to identify the learning gaps.	F	4	8	3	6	2	2.2174	1.27766
	%	17.4	34.8	13.0	25.0	8.7		
I frequently use assessment rubrics to assess my learners.	F	9	3	0	10	0	2.2174	1.27766
	%	39.1	13.0	0.0	43.5	0.0		
I frequently use portfolios to assess my learners.	F	7	5	2	8	1	1.8261	1.19286
	%	30.4	21.7	8.7	34.	4.3		
I help my learners to develop portfolios and guide them on what contents to be included in the portfolio.	F	6	4	4	6	3	2.5652	1.37597
	%	26.1	17.4	17.4	25.0	13.0		
I have difficulties in the use of assessment rubrics to assess learners.	F	3	6	3	7	4	3.1304	1.35862
	%	13.0	26.1	13.0	30.4	17.4		
Rubrics given together with assignment to learners are more useful than rubrics given after the assignment.	F	5	8	2	5	3	2.3913	1.33958
	%	21.7	43.5	8.7	21.7	13.0		

As evident in Table 4.11, 12 (52.2%) agreed that they had knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps

while 9 (39.1%) disagreed. Having knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps were further established to enhance teacher preparedness for Formative Assessment in CBC with (mean=2.0000, std. Dev.= 1.34840). Findings agree with that of Arumugham (2019) that having knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps enhance Teacher preparedness for Formative Assessment in CBC. On whether the head teachers have knowledge to use portfolios to obtain feedback from learners to identify their learning gaps, 12(52.2%) agreed while 8(34.8%) disagreed. Having knowledge to use portfolios to obtain feedback from learners to identify their learning gaps was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.2174, std. Dev.= 1.27766). The study by Chowdhury (2019) also found that having knowledge to use portfolios to obtain feedback from learners to identify their learning gaps enhance Teacher preparedness for Formative Assessment in CBC.

On whether teachers frequently use assessment rubrics to assess the learners, 12(52.2%) agreed while 10(43.5%) disagreed. Frequently using assessment rubrics to assess learners was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.2174, std. Dev.= 1.27766). The study is in agreement with that of Velaso-Martiner and Tojar-Hurtado (2018) who found out that frequently using assessment rubrics to assess the learners enhance Teacher preparedness for Formative Assessment in CBC. As evident from Table 4.11, 12(52.2%) agreed that they frequently use portfolios to assess their learners while

9(39.1%) disagreed. Frequently using portfolios to assess learners was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=1.8261, std. Dev.= 1.19286). Findings are in-tandem with that of Isaboke et al. (2021) that frequent use of portfolios to assess learners enhance Teacher preparedness for Formative Assessment in CBC.

As evident from Table 4.11, 10(43.5%) agreed that they help their learners to develop portfolios and guide them on what content to be included in the portfolio while 9 (39.1%) disagreed. Helping learners to develop portfolios and guiding them on what content is to be included in the portfolio was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.5652, std. Dev.= 1.37597). The study by Komba and Mwandaji (2021) also established that helping learners to develop portfolios and guiding them on what content to be included in the portfolio enhance Teacher preparedness for Formative Assessment in CBC. In regard to whether head teachers have difficulties in the use of assessment rubrics to assess learners, 11 (47.8%) disagreed while 9(39.1%) agreed. Teachers having difficulties in the use of assessment rubrics to assess learners was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=3.1304, std. Dev.= 1.35862). Findings resonate with that of Arumugham (2019) who found out that Teachers having difficulties in the use of assessment rubrics to assess learners does not enhance Teacher preparedness for Formative Assessment in CBC.

On whether rubrics given together with assignment to learners is more useful than rubrics given after the assignment, 13 (56.5%) agreed while 8(34.8%) disagreed. Rubrics given together with assignment to learners being more useful than rubrics given after the assignment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.3913, std. Dev.= 1.33958). The study by Waweru (2022) also established that rubrics given together with assignment to learners being more useful than rubrics given after the assignment enhance Teacher preparedness for Formative Assessment in CBC. The Curriculum support officer who was interviewed stated that;

“Rubrics given together with assignment to learners is more useful than rubrics given after the assignment in enhancement of Teacher preparedness for Formative Assessment in CBC.” This findings support the findings collected via questionnaire.

4.7 Challenges experienced in using formative assessment in CBC

The fourth objective of the study sought to examine challenges teachers, experience in implementing formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. To achieve this objective, two sets of questionnaires and an interview guide were used to collect data from the respondents. The questionnaire that was administered to the teachers sought to establish whether there were enough classrooms for proper implementation of formative assessment, text books for learners and reference books for teachers, the

learner enrolment, vis-a-vis, availability of resources. Findings were presented in Table 4.12.

Table 4.12: Teachers responses on the challenges experienced in using formative assessment in CBC

n=207		S. A	A	N	D	S. D	Mean	Std. Dev
There are enough classrooms for proper implementation of formative assessment.	F	24	11	11	104	57	3.7681	1.24024
	%	11.6	5.3	5.3	50.2	27.5		
Text books for learners and reference books for teachers are available and enough.	F	21	12	12	74	88	3.9469	1.27792
	%	10.1	5.8	5.8	35.7	42.5		
The learner enrolment is high hence excess pressure on the available resources and impedes proper implementation of formative assessment.	F	98	42	20	24	23	3.5411	1.24908
	%	11.1	11.6	9.7	47.3	20.3		

As evident from Table 4.12, 161(77.8%) disagreed with the statement that there are enough classrooms for proper implementation of formative assessment while 35(16.9%) agreed. Having enough classrooms for proper implementation of formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=3.7681, std. Dev.= 1.24024). Findings agree with that of Amunga et al. (2020) that having enough classrooms for proper implementation of formative assessment enhance Teacher preparedness for Formative Assessment in CBC.

The study also sought to determine whether text books for learners and reference books for teachers are available and adequate, 162(78.3%) disagreed while 33(15.9%) agreed. This implies that majority of the respondents stated that text books for learners and reference books for teachers were not available and were inadequate. Text books for learners and reference books for teachers being available and enough was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=3.9469, std. Dev.= 1.27792). The study by Musa and Islam (2020) also established that text books for learners and reference books for teachers being available and enough enhance Teacher preparedness for Formative Assessment in CBC.

It is evident from Table 4.12, that 140(67.6%) agreed that the learner enrolment was high hence exerted pressure on the available resources and impeded proper implementation of formative assessment while 47(22.7%) disagreed. Learner enrolment which pressures the available resources and impede proper implementation of formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=3.5411, std. Dev.= 1.24908). Findings concur with that of Mulenga and Kabombwe (2019) that low learner which does not pressure the available resources and enable proper implantation of formative assessment enhance Teacher preparedness for Formative Assessment in CBC. On whether there is enough space for projects and field for talent developments, 163(78.7%) disagreed with the statement while 24 (11.6%) agreed. Having enough space for projects and field for talent developments was

further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=4.2512, std. Dev.= 1.19655). The findings of the study are in agreement with that of Diana (2020) that having enough space for projects and field for talent developments enhance Teacher preparedness for Formative Assessment in CBC.

The second set of questionnaires that were administered to the head teachers sought to establish whether there were enough classrooms for proper implementation of formative assessment, text books for learners and reference books for teachers are available and enough, the learner enrolment is high hence pressure the available resources and impede proper implementation of formative assessment and whether there is enough space for projects and field for talent developments. Findings were presented in Table 4.13.

Table 4.13: Head Teachers responses on the challenges experienced in using formative assessment in CBC

n=23		S. A	A	N	D	S. D	Mean	Std. Dev
There are enough classrooms for proper implementation of formative assessment.	F	2	2	2	10	7	3.7826	1.24157
	%	8.7	8.7	8.7	43.5	30.4		
Text books for learners and reference books for teachers are available and enough.	F	2	1	1	10	9	4.0000	1.20605
	%	8.7	4.3	4.3	43.5	39.1		
The learner enrolment is high and hence pressures the available resources and impedes proper implementation of formative assessment.	F	10	4	3	3	3	3.3913	1.30520
	%	13.0	13.0	13.0	43.5	17.4		

As evident in Table 4.13, 17 (70.8%) disagreed with the statement that there are enough classrooms for proper implementation of formative assessment while 4 (17.4%) agreed. Having enough classrooms for proper implementation of formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=3.7826, std. Dev.= 1.24157). The study is in agreement with that of Waruingi et al. (2022) that having enough classrooms for proper implementation of formative assessment enhance Teacher preparedness for Formative Assessment in CBC.

The study also sought to determine whether text books for learners and reference books for teachers are available and adequate, 19 (82.6%) disagreed while 3 (13.0%) agreed. This implies that text books for learners and reference books were not

available and inadequate. Text books for learners and reference books for teachers being available and enough was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=4.0000, std. Dev.= 1.20605). The study is in agreement with that of Do Quyen and Khairani (2017) that text books for learners and reference books for teachers being available and enough enhance Teacher preparedness for Formative Assessment in CBC.

It is evident in Table 4.13, that 14 (60.9%) agreed that the learner enrolment is high hence pressure the available resources and impede proper implementation of formative assessment while 6(26.1%) disagreed. Learner enrolment being high and hence pressure the available resources and impede proper implementation of formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=3.3913, std. Dev.= 1.30520). The study is in agreement with that of Amunga et al. (2020) that low learner enrolment which does not pressure the available resources and enable proper implementation of formative assessment enhance Teacher preparedness for Formative Assessment in CBC. On whether there is enough space for projects and field for talent developments, 18(78.3%) disagreed with the statement while 2 (8.7%) agreed. The Curriculum support officer who was interviewed stated that;

“The schools have no enough infrastructure such as classrooms to enable successful implementation of formative assessment in CBC. Teachers in the schools in the sub-county are not enough to conduct formative assessment easily.

Enrollment of learners in the schools was high and therefore it puts' pressure on the available school resources."

4.8 Strategies used to enhance teachers' capacity for formative assessment and enhancement of teacher preparedness for formative assessment in CBC

The fifth objective of the study sought to determine the strategies used to enhance teachers' capacity for formative assessment in CBC in public primary schools in Nandi-east sub-county. To achieve this objective, two sets of questionnaires and an interview guide were used to collect data from the respondents. The questionnaire that was administered to the teachers sought to establish whether teachers use the assessment information to plan enhanced their capacity for formative assessment in CBC, capacity for formative assessment in CBC, adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhanced teachers' capacity for formative assessment in CBC, and whether regular training on different methods of assessment enhanced teachers' capacity for formative assessment in CBC. Findings were presented in Table 4.14.

Table 4.14: Teachers responses on the strategies used to enhance teachers' capacity for formative assessment and enhancement of teacher preparedness for formative assessment in CBC

n=207			S. A	A	N	D	S. D	Mean	Std. Dev
Teachers use of the assessment information to plan enhances teachers' capacity for formative assessment in CBC.	F		59	93	20	24	11	2.2029	1.13522
	%		28.5	44.9	9.7	11.6	5.3		
Integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC.	F		80	66	24	17	20	2.1836	1.29417
	%		38.6	31.9	11.6	8.2	9.7		
Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhances teachers' capacity for formative assessment in CBC	F		54	74	21	24	34	2.5652	1.41227
	%		26.1	35.7	10.1	11.6	16.4		
Regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC.	F		96	45	11	20	35	2.2899	1.53378
	%		46.4	21.7	5.3	9.7	16.9		

As evident in Table 4.14, 152(73.4%) agreed that teachers use of the assessment information to plan enhanced their capacity for formative assessment in CBC while 35(16.9%) disagreed. Teachers use of the assessment information to plan enhanced teachers' capacity for formative assessment was further established to enhance

Teacher preparedness for formative assessment in CBC with (mean=2.2029, std. Dev.= 1.13522). Findings resonate that of Stiggins (2022) that teachers use of the assessment information to plan enhances teachers' capacity for formative assessment enhance Teacher preparedness for Formative Assessment in CBC. On whether integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC, 146(70.5%) agreed while 37 (17.9%) disagreed. Integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.1836, std. Dev.= 1.29417). The study is in-tandem with that of Lim and Tan (2019) that integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC.

As shown from Table 4.14, 128(61.8%) agreed that adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhances teachers' capacity for formative assessment in CBC while 58(28.0%) disagreed. Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom was further established to enhance teacher preparedness for formative assessment in CBC with (mean=2.5652, std. Dev.= 1.41227). Findings concur with that of Boud and Falchikov (2022) that adequate training that helps to orient the teachers on the various methods of assessment of

students in the classroom enhance Teacher preparedness for Formative Assessment in CBC.

The study also sought to determine whether regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC, 141(68.1%) agreed while 55(26.6%) disagreed. Regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.2899, std. Dev.= 1.53378). The study findings resemble that of Waweru (2023) that regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC.

The second set of questionnaires that were administered to the head teachers sought to establish whether teachers use of the assessment information to plan enhances teachers' capacity for formative assessment in CBC, integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC, adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhances teachers' capacity for formative assessment in CBC, and regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC. Findings were presented in Table 4.15.

Table 4.15: Head Teachers responses on the strategies used to enhance teachers' capacity for formative assessment and enhancement of teacher preparedness for formative assessment in CBC

n=23		S. A	A	N	D	S. D	Mean	Std. Dev
Teachers use of the assessment information to plan enhances teachers' capacity for formative assessment in CBC.	F	7	9	3	2	2	2.2609	1.25109
	%	30.4	39.1	13.0	8.7	8.7		
Integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC.	F	8	6	3	3	3	2.4348	1.44052
	%	34.8	26.1	13.0	13.0	13.0		
Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhances teachers' capacity for formative assessment in CBC.	F	5	8	3	3	4	2.6957	1.42812
	%	21.7	34.8	13.0	13.0	17.4		
Regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC.	F	9	4	2	3	5	2.6087	1.64425
	%	39.1	17.4	8.7	13.0	21.7		

As evident from Table 4.15, 16 (69.6%) agreed that teachers use of the assessment information to plan enhances teachers' capacity for formative assessment in CBC while 4 (17.4%) disagreed. Teachers use of the assessment information to plan

enhances teachers' capacity for formative assessment was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.2609, std. Dev.= 1.25109). Findings agrees with that of Otieno and Machani (2022) that teachers use of the assessment information to plan enhances teachers' capacity for formative assessment enhance Teacher preparedness for Formative Assessment in CBC.

On whether integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC, 14 (66.7%) agreed while 6 (26.1%) disagreed. Integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.4348, std. Dev.= 1.44052). Findings resemble that of Andima (2020) that integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC.

As shown in Table 4.15, 13 (56.5%) agreed that adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhances teachers' capacity for formative assessment in CBC while 7(30.4%) disagreed. Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.6957, std.

Dev.= 1.42812). Findings agrees with that of Momanyi and Rop (2020) that adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhance Teacher preparedness for Formative Assessment in CBC.

The study also sought to determine whether regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC, 13 (56.5%) agreed while 8(34.8%) disagreed. Regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC was further established to enhance Teacher preparedness for Formative Assessment in CBC with (mean=2.6087, std. Dev.= 1.64425). Findings are similar to that of Otieno and Machani (2022) that regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC enhance Teacher preparedness for Formative Assessment in CBC. The Curriculum support officer who was interviewed stated that;

“Integration of classroom assessment with the instructional process is used as a strategy to enhance teachers' capacity for formative assessment in CBC. Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom is used to enhance teachers' capacity for formative assessment in CBC. Regular training on different methods of assessment is adopted in schools to enhance teachers' capacity for formative assessment in CBC.”

4.9 Inferential statistics representing relationship between Teacher re-tooling program, teacher involvement in curriculum development, assessment tools and Teacher preparedness for formative assessment in CBC

Multiple linear regression analysis was adopted to predict level of Teacher preparedness from teacher re-tooling program, teacher involvement in curriculum development, and assessment tools. Findings were presented in Table 4.14.

Table 4.14: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841	.727	.704	1.42091

a. Predictors: (Constant), Teacher re-tooling program, teacher involvement in curriculum development, assessment tools

The adjusted R-square value is 0.704 which implies that the model explains 70.4% of Teacher level of preparedness from Teacher re-tooling program, teacher involvement in curriculum development, assessment tools. The study used Analysis of variance (ANOVA) to measure goodness of fit of the regression model. Findings are presented in Table 4.17;

Table 4.15: ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2242.571	3	657.391	481.250	.000b
	Residual	406.745	204	2.420		
	Total	2871.410	207			

a. Dependent Variable: Level of Teacher Preparedness

b. Predictors: (Constant), Teacher re-tooling program, teacher involvement in curriculum development, assessment tools

The value of the F test is $F(3, 207) = 481.250$, $p < 0.05$ which meant that the model was reliable and level of Teacher preparedness could be predicted from it. The regression coefficient analysis results were presented in Table 4.15.

Table 4.15: Regression coefficients for Teacher re-tooling program, teacher involvement in curriculum development and assessment tools

		Unstandardized Coefficients		Standardized Coefficients	F	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.615	.881		7.742	.000
	Teacher re-tooling program	.377	.417	.307	4.723	.000
	teacher involvement in curriculum development	.491	.560	.339	.941	.001
	Assessment tools	.420	.461	.566	3.571	.030

a. Dependent Variable: Level of Teacher preparedness

As evident in Table 4.15, Teacher re-tooling program had a positive and significant effect on level of teacher preparedness of ($\beta = .377$, $p < 0.05$). This meant that when teacher re-tooling program is improved by one unit it enhances the level of teacher preparedness by .377 units when Teacher involvements in curriculum and assessment tools are kept constant. For the null hypothesis to be rejected the p-value should be less than 0.05. In this study, null hypothesis (H_{01}) that Teacher re-tooling program has no significant effect on teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county was rejected as the p value was less than 0.05. Findings agree with that of Yan and Cheng (2020) that teacher re-tooling program enhances the level of preparedness of the teachers. Teacher involvement in curriculum development had a positive and significant effect on level of teacher preparedness of ($\beta = .491$, $p < 0.05$). This meant that an increase in teacher involvement in curriculum development by one unit it enhances level of teacher preparedness by .491 units when teacher retooling program and assessment tools are kept constant. For the null hypothesis to be rejected the p-value should be less than 0.05. In this study, the null hypothesis (H_{02}) that Teacher involvement in curriculum development has no significant effect on teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county was rejected as the p value was less than 0.05. Findings are in-tandem with that of Dube and Jita (2018) that teacher involvement in curriculum development enhances level of teacher preparedness.

Assessment tools had a positive and significant effect on level of teacher preparedness of ($\beta = .420$, $p < 0.05$). This meant that an improvement in assessment tools by one unit enhances level of teacher preparedness by .420 units when Teacher retooling program and teacher involvement in curriculum development are kept constant. For the null hypothesis to be rejected the p-value should be less than 0.05. In this study, the null hypothesis (H_{03}) that Teacher ability to use assessment tools has no significant effect on enhancement of teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county was rejected as the p value was less than 0.05. Findings are in-tandem with that of Velaso-Martiner and Tojar-Hurtado (2018) who found out that assessment tools affect level of teacher preparedness in formative assessment in CBC.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides summary of findings, conclusion and recommendations based on the outcomes of this study. The recommendations made seek to enhance interventions and development in areas of policy, practice and new areas for further study.

5.2 Summary of Findings

The first objective of the study was to establish the extent of teacher re-tooling program in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. The study established that teacher's attendance of Competency Based Curriculum in-service training on formative assessment enhanced Teacher preparedness for Formative Assessment in CBC. Teachers' content knowledge helped to influence how teachers assess learners and therefore it helped to enhance Teacher preparedness for Formative Assessment in CBC. Teacher qualifications helped to influence implementation of formative assessment in CBC and it also helps to enhance Teacher preparedness for Formative Assessment in CBC. Regression results revealed that teacher re-tooling program had a positive and significant effect on level of teacher preparedness of ($\beta = .377, p < 0.05$).

The second objective of the study was to determine the extent of teacher involvement in curriculum development in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. The study established that getting involved in formulation of CBC on formative assessment enhanced Teacher preparedness for Formative Assessment in CBC. Getting involved in development of formative assessment materials in CBC helped to enhance Teacher preparedness for Formative Assessment in CBC. Willingness to participate in the development of formative assessment in CBC helped to enhance Teacher preparedness for Formative Assessment in CBC. Having enough qualifications which allows them to be involved in CBC curriculum development helped to enhance Teacher preparedness for Formative Assessment in CBC. Regression results revealed that teacher involvement in curriculum development had a positive and significant effect on level of teacher preparedness of ($\beta = .491, p < 0.05$).

The third objective of the study was to determine the effect of teacher ability to use assessment tools in enhancing teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. The study established that having knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps enhanced Teacher preparedness for Formative Assessment in CBC. Having knowledge to use portfolios to obtain feedback from learners to identify their learning gaps enhanced Teacher preparedness for Formative Assessment in CBC. Frequently using assessment

rubrics to assess learners helped to enhance Teacher preparedness for Formative Assessment in CBC. Frequently using portfolios to assess learners helps to enhance Teacher preparedness for Formative Assessment in CBC. Helping learners to develop portfolios and guide them on what contents to be included in the portfolio helped to enhance Teacher preparedness for Formative Assessment in CBC. Teachers having difficulties in the use of assessment rubrics to assess learners help to enhance Teacher preparedness for Formative Assessment in CBC. Rubrics given together with assignment to learners are being more useful than rubrics given after the assignment and therefore it helped to enhance Teacher preparedness for Formative Assessment in CBC. Regression results revealed that assessment tools had a positive and significant effect on level of teacher preparedness of ($\beta = .420$, $p < 0.05$).

The fourth objective of the study was to examine challenges teachers, experience in implementing formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. The study established that there are not enough classrooms for proper implementation of formative assessment, lack of enough textbooks for learners and reference books for teachers, the learner enrolment was high and hence pressure the available resources and impede proper implementation of formative assessment.

The fifth objective of the study was to determine the strategies used to enhance teachers' capacity for formative assessment in CBC in public primary schools in

Nandi-east sub-county. The study established that teachers use assessment information to plan which enhanced teachers' capacity for formative assessment in CBC. Integration of classroom assessment with the instructional process for teachers was adopted and therefore helped to enhance teachers' capacity for formative assessment in CBC. Adequate training that helped to orient the teachers on the various methods of assessment of students in the classroom was adopted and therefore it helped to enhance teachers' capacity for formative assessment in CBC. Regular training on different methods of assessment was adopted and therefore helped to enhance teachers' capacity for formative assessment in CBC.

5.3 Conclusion

On the first objective, the study concluded that teacher re-tooling program enhances teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. This is so because teachers attend Competency Based Curriculum in-service training on formative assessment which enhances Teacher preparedness for Formative Assessment in CBC implementation. The study also concluded that duration of the training affects implementation of formative assessment in classroom which affects Teacher preparedness for Formative Assessment in CBC. Teachers' content knowledge has an influence on how teachers assess learners which enhance Teacher preparedness for Formative Assessment in CBC.

On the second objective, the study concluded that teacher involvement in curriculum development enhances teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. This happens attributed to the teachers getting involved in formulation of CBC on formative assessment, in development of formative assessment materials in CBC and willingly participating in the development of formative assessment in CBC.

On the third objective of the study, the study concluded that teacher ability to use assessment tools enhances teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county. The study also concluded that having knowledge to use assessment rubrics to obtain feedback from learners to identify their learning gaps enhance Teacher preparedness for Formative Assessment in CBC. Having knowledge to use portfolios to obtain feedback from learners to identify their learning gaps enhance Teacher preparedness for Formative Assessment in CBC. How frequent teachers use assessment rubrics and portfolios to assess learners enhance Teacher preparedness for Formative Assessment in CBC. When teachers help learners to develop portfolios and guide them on what contents to be included in the portfolio enhance Teacher preparedness for Formative Assessment in CBC. When teachers give rubrics together with assignment to learners it enhances Teacher preparedness for Formative Assessment in CBC.

On the fourth objective, the study concluded that when implementing formative assessment in competency-based curriculum in public primary schools in Nandi-east sub-county, teachers face several challenges which include lack of enough classrooms for proper implementation of formative assessment, lack of enough text books for learners and reference books for teachers, the learner enrolment being high hence pressure the available resources which impede proper implementation of formative assessment.

On the fifth objective of the study, the study concluded that teachers use assessment information to plan which enhances teachers' capacity for formative assessment in CBC. Integration of classroom assessment with the instructional process for teachers is used to enhance teachers' capacity for formative assessment in CBC. Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom is used to enhance teachers' capacity for formative assessment in CBC. Regular training on different methods of assessment was adopted is used to enhance teachers' capacity for formative assessment in CBC. The overall conclusion is that the success of the competency-based curriculum depends on teacher preparedness for formative assessment in competency-based curriculum.

5.4 Recommendations

This section covers both recommendations for policy, practice and suggestions for further studies.

5.4.1 Recommendations for Policy

The government through the Ministry of Education should develop a policy on measures that should be put in place to enhance in-service training and efficiency of workshops as part of teacher retooling program that teachers attend to enhance teacher preparedness for formative assessment in Competency Based Curriculum at Public Primary Schools. Policies on how long teachers should spend on in-service training on formative assessment in Competency Based Curriculum should be developed to enhance teacher preparedness for formative assessment in Competency Based Curriculum. A policy on how frequently teachers should attend training on how to use assessment tools to assess learners should be put in place. This will help to enhance teacher preparedness for formative assessment in Competency Based Curriculum.

5.4.2 Recommendations for Practice

On teacher re-tooling program, the study recommended that teachers should continue to attend Competency Based Curriculum in-service training on formative assessment so as to enhance Teacher preparedness for Formative Assessment in CBC. Training on learner assessment in CBC should be sufficient if Teacher preparedness for

Formative Assessment in CBC is to be enhanced. Teachers should continue to have pedagogical content knowledge on how to implement Formative Assessment in CBC.

On teacher involvement in curriculum development, the study recommends that teachers should continue to get involved in formulation of CBC on formative assessment and in development of formative assessment materials in CBC. Teachers should willingly participate in the development of formative assessment in CBC and they should have requisite qualifications which allow them to be involved in CBC curriculum development.

On teacher ability to use assessment tools, the study recommended that teachers should go for trainings to acquire skills and knowledge on how to use assessment rubrics to obtain feedback from learners. This will help the teachers to identify their learning gaps and be able to enhance their preparedness for Formative Assessment in CBC. Teachers should be trained on how to use portfolios to obtain feedback from learners to identify their learning gaps so as to enhance their preparedness for Formative Assessment in CBC. Teachers should be trained on how to frequently use assessment rubrics to assess learners so as their preparedness for Formative Assessment in CBC to be enhanced. Teachers should frequently use portfolios to assess learners so as to enhance their preparedness for Formative Assessment in CBC. Teachers should be trained on how to help learners to develop portfolios and contents to be included in the portfolio so as to enhance even further their

preparedness for Formative Assessment in CBC. Teachers should be trained on how to give rubrics together with assignment to learners so as to enhance their preparedness for Formative Assessment in CBC.

On the fourth objective, the study recommends that the Ministry of Education should provide text books for learners and reference books for teachers in public primary schools and continue construction of classrooms to accommodate the high enrolment of learners.

On strategies used to enhance teachers' capacity for formative assessment in CBC, the study recommended that teachers should continue to use assessment information to plan so as continue to enhance teachers' capacity for formative assessment in CBC. Integration of classroom assessment with the instructional process for teachers should continue to be done so as to further enhance teachers' capacity for formative assessment in CBC. Teachers should continue to receive adequate training so as to orient the teachers further on the various methods of assessment of students in the classroom. There should be regular training of teachers on different methods of assessment so as to continue to enhance teachers' capacity for formative assessment in CBC. The overall recommendation is that teacher's preparedness for formative assessment in competency-based curriculum should be given priority if its implementation is to be successful.

5.5 Suggestions for Further study

The study had been conducted on the extent of teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi-East Sub- County. The study recommends further studies to be conducted on the same subject matter but focus on other indicators of teacher preparedness for formative assessment besides, teacher re-tooling program, teacher involvement in curriculum development and teacher ability to use assessment tools. The indicators of teacher preparedness for formative assessment to be adopted include; capacity to provide constructive feedback that supports the learning of the students, ability to design and implement formative assessment strategies that are effective and teachers' knowledge of formative assessment principles. This will help to enhance the existing body of knowledge on teacher preparedness for formative assessment in Competency Based Curriculum. The capacity of teachers to develop formative assessment tools to enhance 21st century competencies in a learner needs further investigation.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Department of curriculum
Koitalel Samoei University College
P.O box
--/---/2024.

The head teacher,
.....primary school,
P.O BOX

Dear sir/madam,

RE: REQUEST TO CARRY OUT EDUCATIONAL RESEARCH IN YOUR SCHOOL

I am a master of curriculum student at the above college conducting research to investigate the

“Teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi-East Sub-County, Nandi County, Kenya.” I kindly request you to permit me to collect required information from you and your teachers to fulfill the study. The information collected will be purely for purpose of this research and the identity of the respondents will be treated with strict confidentiality.

Your support will highly be appreciated.

Yours faithfully

Shadrack Kipkemboi Lelei.

APPENDIX II: QUESTIONNAIRE FOR TEACHERS

Dear Sir/Madam,

You are kindly requested to respond to the items in the questionnaire as comprehensively as possible. The information you provide will be used only for this study and your identity will be kept confidential. Do not write your name anywhere in the questionnaire.

SECTION A: Demographic characteristics

By means of a tick (✓) please indicate as appropriate

1. Age: Below 25 [] 25-30 [] 30-35 [] 35-40 [] Above 40 []

2. Gender: Male [] Female []

3. Highest professional qualification

Certificate [] Diploma [] Bachelors [] Masters [] Doctorate []

4. Teaching experience in your present school?

1-5 years [] 6-10 years [] 11-20 years [] more than 20 years []

SECTION B: Teacher re-tooling program and enhancement of teacher preparedness for

formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale range from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	Statements	SA	A	U	D	SD
1.	I have attended Competency Based Curriculum in-service training on formative assessment					
2.	The duration of the training was enough to enable me implement formative assessment in classroom					
3.	I have enough training on learner assessment in CBC					
4.	Teachers content knowledge influences how teachers assess learners					
5	Teacher qualifications influence implementation of formative assessment in CBC					

SECTION C: Teachers' involvement in curriculum development and enhancement of teacher preparedness for formative assessment in CBC

Kindly indicate your response on the extent of your involvement in the development of CBC curriculum and formative assessment. Select the appropriate response and tick appropriately. The scale range from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	STATEMENT	SA	A	U	D	SD
1.	I was involved in formulation of CBC on formative assessment					
2.	I was involved in development of formative assessment materials in CBC					
3.	I am willing to participate in the development of formative assessment in CBC					
4.	I have enough qualifications which allows me to be involved in CBC curriculum development					

SECTION D: Extent of teacher use of assessment tools in formative assessment and enhancement of teacher preparedness for formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale range from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	STATEMENT	SA	A	U	D	SD
A	I have knowledge to use the following assessment tools to obtain feedback from learners to identify their learning gaps					
	i) Assessment rubrics					
	ii) portfolios					
B	I frequently use the following assessment tools to assess my learners					
	i) assessment rubrics					
	ii) portfolios					
C	I help my learners to develop portfolios and guide them on what contents to be included in the portfolio					
D	I have difficulties in the use of assessment rubrics to assess learners					
E	Rubrics given together with assignment to learners is more useful than rubrics given after the assignment					

SECTION E: Challenges experienced in using formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale ranges from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	STATEMENT	SA	A	U	D	SD
A	There are enough classrooms for proper implementation of formative assessment					
B	There is constant supply of electricity to enable the use of ICT					
C	Text books for learners and reference books for teachers are available and enough					
D	The learner enrolment is high and hence pressure the available resources and impede proper implantation of formative assessment					
E	There is enough space for projects and field for talent developments					

SECTION F: Strategies used to enhance teachers' capacity for formative assessment and enhancement of teacher preparedness for formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale ranges from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	Statements	SA	A	U	D	SD
A	Teachers use of the assessment information to plan enhances teachers' capacity for formative assessment in CBC.					
B	Integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC.					
C	Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhances teachers' capacity for formative assessment in CBC.					
D	Regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC.					

APPENDIX III: QUESTIONNAIRE FOR HEAD TEACHERS

Dear Sir/Madam,

You are kindly requested to respond to the items in the questionnaire as honestly as possible. The information you provide will be confidential and is meant only for this study. Do not write your name anywhere in the questionnaire.

SECTION A: Demographic characteristics

By means of a tick (✓) please indicate as appropriate

1. Age: Below 25 [] 25-30 [] 30-35 [] 35-40 [] Above 40 []

2. Gender: Male [] Female []

3. Highest professional qualification

Certificate [] Diploma [] Bachelors [] Masters [] Doctorate []

4. Teaching experience in your present school?

1-5 years [] 6-10 years [] 11-20 years [] more than 20 years []

SECTION B: Teacher re-tooling program and enhancement of teacher preparedness for

formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale range from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	STATEMENT	SA	A	U	D	SD
A	I have attended Competency Based Curriculum in-service training on formative assessment					
B	The duration of the training was enough to enable me implement formative assessment in classroom					
C	I have enough training on learner assessment in CBC					
D	Teachers content knowledge influences how teachers assess learners					
E	Teacher qualifications influences teacher preparedness for formative assessment in CBC.					

SECTION C: Teachers' involvement in curriculum development and enhancement of

teacher preparedness for formative assessment in CBC

Kindly indicate your response on the extent of your involvement in the development of CBC curriculum and formative assessment. Select the appropriate response and tick appropriately. The scale range from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	Statements	SA	A	U	D	SD
A	I was involved in formulation of CBC					
B	I was involved in development of formative assessment materials in CBC					
C	I am willing to participate in the development of formative assessment in CBC					
D	I have enough qualifications which allows me to be involved in development of formative assessment					

SECTION D: Extent of teacher use of assessment tools in formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale range from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	STATEMENT	SA	A	U	D	SD
A	I have knowledge to use the following assessment tools to obtain feedback from learners to identify their learning gaps					
	iii) Assessment rubrics					
	iv) portfolios					
B	I frequently use the following assessment tools to assess my learners					
	iii) assessment rubrics					
	iv) portfolios					
C	I help my learners to develop portfolios and guide them on what contents to be included in the portfolio					
D	I have difficulties in the use of assessment rubrics to assess learners					
E	Rubrics given together with assignment to learners is more useful than rubrics given after the assignment					

SECTION E: Teacher challenges in formative assessment and enhancement of teacher preparedness for formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale range from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	STATEMENT	SA	A	U	D	SD
A	There are enough classrooms for proper implementation of formative assessment					
B	There is constant supply of electricity to enable the use of ICT					
C	Text books for learners and reference books for teachers are available and enough					
D	The learner enrolment is high and hence pressure the available resources and impede proper implantation of formative assessment					
E	There is enough space for projects and field for talent developments					

SECTION F: Strategies used to enhance teachers' capacity for formative assessment and enhancement of teacher preparedness for formative assessment in CBC

Kindly select the appropriate response and tick appropriately. The scale ranges from SA-SD where SA=strongly agree, D=disagree, U=undecided, A=agree and SD=strongly disagree.

	Statements	SA	A	U	D	SD
A	Teachers use of the assessment information to plan enhances teachers' capacity for formative assessment in CBC.					
B	Integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC.					
C	Adequate training that helps to orient the teachers on the various methods of assessment of students in the classroom enhances teachers' capacity for formative assessment in CBC.					
D	Regular training on different methods of assessment enhances teachers' capacity for formative assessment in CBC.					

APPENDIX IV: INTERVIEW GUIDE FOR SUB-COUNTY CSO

I am Shadrack Kipkemboi Lelei a student at Koitaleel Samoei University College pursuing masters in curriculum. I am conducting a study on **“Teacher preparedness for formative assessment in Competency Based Curriculum in Public Primary Schools in Nandi-East Sub-County, Nandi County, Kenya.”** I will collect information relative to teacher re-tooling program, challenges teachers face on implementation of formative assessment, teacher involvement in curriculum development and teachers’ ability to use formative assessment tools and teacher challenges in implementing formative assessment and strategies used to enhance teachers’ capacity for formative assessment. The data collected will remain anonymous and will be used for the study alone. You are required to respond to questions based on your experience.

I greatly appreciate your participation in this study.

SECTION A: DEMOGRAPHIC INFORMATION

- i. Age.....
- ii. Gender.....
- iii. How long have you served in your current position.....
- iv. Please indicate by ticking [] the highest academic qualification.
 - a) PhD []
 - b) Masters []
 - c) Post graduate diploma []
 - d) Undergraduate BED [] BSC [] BA []
 - e) Diploma []
 - f) Others (please specify)

PART B

- i). In your view, are teachers effectively trained to implement formative assessment in formative assessment in CBC?
- ii). Was the duration of teacher training enough to equip them with the competencies to successfully implement formative assessment?
- iii). Are schools having enough infrastructure such as classrooms to enable successful implementation of formative assessment in CBC?
- iv). Are there enough teachers in the schools in the sub-county to conduct formative assessment easily without straining?
- v). in your view, how is enrollment of learners in the schools? Does it put pressure on the available school resources?
- vii). were public primary school teachers effectively involved during the development of CBC and formative assessment? If yes, to what extend?
- viii). what factors if any, hinders teachers from being involved in curriculum development?
- ix). which formative assessment tools do teachers frequently use during learners' assessment?
- x). Does the use of the assessment information to plan enhances teachers' capacity for formative assessment in CBC?
- xi). Does Integration of classroom assessment with the instructional process for teachers enhances teachers' capacity for formative assessment in CBC?

APPENDIX V: INTRODUCTION LETTER



KOITALEEL SAMOEI UNIVERSITY COLLEGE

(A Constituent College of the University of Nairobi)

SCHOOL OF EDUCATION

Fax: +254-20-4815307
Email: principal@ksuc.ac.ke
Website: www.ksuc.ac.ke

Telephone: +254 20-2801105, DL +254-20-4815305
P.O. Box 5-30307
Moi Road, Kenya

May 28, 2024

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

REF: SHADRACK KIPKEMBOI LELEI

The above named person is registered student of Koitaleel Samoei University College (KSUC), pursuing Master's Degree in Education Curriculum.

Shadack is planning to conduct an academic research titled.

"ANALYSIS OF EXTENT OF TEACHER PREPAREDNESS FOR FORMATIVE ASSESSMENT IN COMPETENCY BASED CURRICULUM IN PUBLIC PRIMARY SCHOOLS IN NANDI –EAST, SUB COUNTY"

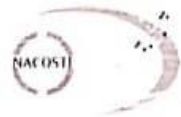
I request your office to accord him the necessary assistance to enable him conduct his research.

Yours Faithfully,

DR. JEPKEMBOI CHOGE
DIRECTOR SCHOOL OF EDUCATION



APPENDIX VI: RESEARCH LICENSE

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 253514	Date of Issue: 05/June/2024
RESEARCH LICENSE	
	
This is to Certify that Mr., SHADRACK KIPKEMBOI LELEI of Kaitaleel Samoei University College, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nandi on the topic: ANALYSIS OF EXTENT OF TEACHER PREPAREDNESS FOR FORMATIVE ASSESSMENT IN COMPETENCY BASED CURRICULUM IN PUBLIC PRIMARY SCHOOLS IN NANDI-EAST SUB-COUNTY for the period ending : 05/June/2025.	
License No: NACOSTI/P/24/36490	
253514	
Applicant Identification Number	Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code
	
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	
See overleaf for conditions	

**APPENDIX VII: LETTER FROM THE MINISTRY OF INTERIOR AND
NATIONAL ADMINISTRATION**

**OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND NATIONAL ADMINISTRATION**

Tel: 053 5252621, 5252003, Kapsabet
Fax No. 053 – 5252503
E-mail:
nandicountycommissioner@gmail.com
When replying, please quote

Ref: No. NC.EDU. 4/3 VOL.II/(88)



County Commissioner's Office,
Nandi County
P.O. Box 30,
KAPSABET.

1st July, 2024

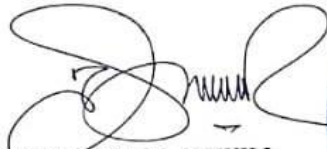
Shadrack Kipkemboi Lelei
Koitaleel Samoei University College
P.O. Box 5 - 30307
MOSORIOT.

RE: RESEARCH AUTHORIZATION

This is in reference to letter No. NACOSTI/P/24/36490 dated 5th June, 2024 from the Director General, National Commission for Science, Technology and Innovation on the above subject matter.

You are hereby authorized to conduct research on **“Analysis of extent of Teacher preparedness for formative assessment in competency-based curriculum in public primary schools in Nandi East Sub County”** for the period ending 5th June, 2025.

Wishing you all the best.

PP 
CAROLINE M. NZWILI,
COUNTY COMMISSIONER,
NANDI.



APPENDIX VIII: RESEARCH AUTHORIZATION LETTER



MINISTRY OF EDUCATION STATE DEPARTMENT FOR BASIC EDUCATION

Email: cdenandicounty@yahoo.com

Telephone: 0773044624

When replying please quote

County Director of Education
NANDI COUNTY,
P. O. Box 36-30300,
KAPSABET.

Ref: NDI/CDE/RESEARCH/1/VOL.111/132

Date: 1st July, 2024

Mr. Shadrack Kipkemboi Lelei
Koitalel Samoei University College
P.O Box 5-3030
MOSORIOT.

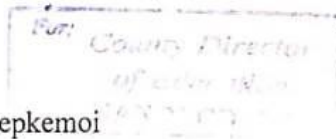
RE: RESEARCH AUTHORIZATION.

Reference is made to the National Commission for Science, Technology and Innovation's letter Ref: No. NACOSTI/P/23/36490 dated 5th June, 2024.

The above named person has been granted permission by the County Director of Education to carry out research on "*Analysis of Extent of Teacher Preparedness for Formative Assessment in Competency Based Curriculum in Public Primary Schools* " in Nandi East Sub County for the period ending 5th June, 2025.

Kindly provide him all necessary support he requires.

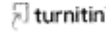
Lilian Chepkemai
For: County Director of Education,
NANDI COUNTY.



APPENDIX IX: SIMILARITY INDEX

TEACHER PREPAREDNESS FOR FORMATIVE ASSESSMENT IN COMPETENCY BASED CURRICULUM ATPUBLIC PRIMARY SCH...

turnitin



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- Quoted Text

Exclusions

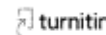
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- 44 Missing Quotations: 2%
Matches that are still very similar to source material
- 0 Missing Citation: 0%
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Submission ID: trnoid=13323692722