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DETERMING THE EFFECTIVENESS OF CONTINUOUS ASSESSMENT LEARNING ACTIVITIES (CALA) IN THE TEACHING AND LEARNING OF ODINARY LEVEL PHYSICS IN ZIMBABWE: THE CASE OF MUTOKO HIGH SCHOOL, MUTOKO DISTRICT

BY

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A Dissertation submitted to the Department of Science and Mathematics Education in partial fulfillment of Bachelor of Science Education (Honors) Degree in Physics

APPROVAL

I certify that I have supervised Sabata Simbarashe. A. for this research titled "DETERMING THE EFFECTIVENESS OF CALA IN THE TEACHING AND LEARNING OF ODINARY LEVEL PHYSICS IN ZIMBABWE: A CASE OF MUTOKO HIGH SCHOOL, MUTOKO DISTRICT." in partial fulfillment of the requirements of the Bachelor of Science Education Honors Degree in Physics and recommend that it proceeds for examination

Supervisor Name: Mr Manyeredzi signature: P.P  date: 28/07/24

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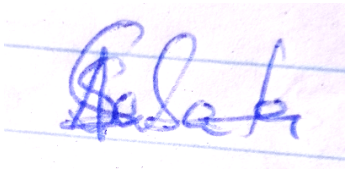
DECLARATION AND RELEASE FORM

I, Sabata Simbarashe Allen studying for the Bachelor of Science education Honors degree in Physics am cognizant of the fact that plagiarism is a serious academic offense and that falsifying information is a breach of ethics, truthfully declare that: The dissertation report titled "DETERMING THE EFFECTIVENESS OF CALA IN THE TEACHING AND LEARNING OF ODINARY LEVEL PHYSICS IN ZIMBABWE: A CASE OF MUTOKO HIGH SCHOOL, MUTOKO DISTRICT" is a result of my own work and has not been plagiarized

Student name : Sabata Simbarashe A. Signature:  Date : 16/10/24

DEDICATION

This research is dedicated my wife Mazviita and my Children Nenyasha and Adrandon, my loving mother and my mother M. Chiripanyanga and my best friend Kuda

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extended to my wife. Appreciation goes to the School Heads, SDC chairpersons, teachers and all the research participants.

ABSTRACT

The research sought to determine the effectiveness of Continuous Assessment Learning Activities (CALA) by the ministry of primary and secondary education in Zimbabwe. The research was propelled by concerns raised by some stakeholders particularly learners and teachers. An exploratory research approach was adopted in this research to comprehend the major factors that have an impact on the use of continuous assessment learning activities (CALA) in Zimbabwe. A qualitative research methodology was used in this research through the use of questionnaires as a data collection instrument for the research. A total of 30 questionnaires were distributed to both the students and teachers from schools in Mutoko district in Mashonaland East Province and a response rate of 98% was yielded. The results obtained indicated that the decision to introduce continuous assessment activities in secondary schools was a noble idea, but it was negatively influenced by a number of controllable factors. The findings of the study also showed that there was poor planning and timing by the ministry of primary and secondary education in the implementation of CALA, which led to teachers, parents and learners' outcry. The research recommended the involvement of teachers, parents and learners in the decision-making process as they are the

implementers of the initiative. The prominance of teachers in the process should not be overlooked as they are the gatekeepers who play an important role in the success of this noble initiative. Also, ZIMSEC should come up with a common achievement standard for CALA moderation at national level. Teacher should be given CALA components at national level so that a fair and uniform assessment measure is implemented all over the country.

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CHAPTER 1

1.0 INTRODUCTION

This chapter focuses on the background of the study, statement of the problem, purpose of study, main research question, sub research questions, research objectives, delimitations and limitations of the study. The chapter includes definition of key terms that are going to be used throughout the study.

1.1 Background of the study

Since 2014, the Ministry of Primary and Secondary Education (MoPSE) has embarked on a comprehensive national curriculum reform process which is meant to enhance the quality of education in Zimbabwe. A new competence-based curriculum framework was developed and finalized in 2015 whose phased implementation commenced in 2017. Several innovations were introduced in the new curriculum with broad implications for stakeholders at all levels (MoPSE, 2021). Continuous Assessment as part of the new curriculum being implemented will see learners being marked from tasks and projects given by their teachers during normal learning, and also final examinations. The Ministry of Primary and Secondary Education, through the Zimbabwe School Examinations Council (ZIMSEC), introduced CALA in 2021 as a candidate assessment procedure that requires learners to perform, demonstrate their knowledge, understanding and proficiency in their learning areas before the main public exam. Under Continuous Assessment Learning Activities (CALA), learners are supposed to carry out projects and tasks in schools, which will constitute 30% of their coursework for the final examination under the Zimbabwe School Examinations Council (ZIMSEC) for each subject.

The development will see learners being assessed from both the course work and the final exam unlike when they were graded using the final exam mark only in the past. Continuous /Assessment is a learning strategy evaluation that assesses learners' development or performance during the course of a programme. This is done to avoid relying solely on tests at the conclusion of the academic term. It is a technique for evaluating students' final grades in cognitive, affective, and sensorimotor areas of performance over a particular time period. It is the phenomena in which learners are regularly tested during the majority of their schooling.

According to (Abejehu, 2016), the Federal Government Handbook on Continuous Assessment proposed Continuous Assessment (CA) as a means of determining what the learner received during active learning in terms of understanding, problem solving and reasoning, characterization, and industry. The findings of continuous assessment are used at the conclusion of each course, and the findings are put into consideration once learners leave school. Continuous assessment is a means of receiving the information from the school authority about any learner. It considers learners' termly or periodic achievement in assignments, tests, projects, and other education programs. This is to explain that in continuous assessment, the emphasis is on assigning points to any piece of work completed by the learner. It is a technique that systematically considers students' final grades in cognitive, emotional, and sensorimotor domains of education throughout a certain period in the educational system. This type of assessment considers numerous ways or modes of evaluations used, with the goal of guiding and improving learners' learning capacity as well as their various accomplishments.

The whole essence of Continuous Assessment Learning Activities (CALA) is the blending of theory and practical experience. The efficacy of continuous assessment learning area will never be in any serious doubt if properly planned (Bassey, 2015). The basis of such success is robust engagement of teachers as the implementers of educational reforms, availing resources by state for workshops and successful implementation based on developed standardized tools of assessment and interoperability, as well as adequate time for piloting the intended reforms before implementation. Broad engagement of teachers as the implementers is crucial as they in essence develop Continuous Assessment Learning Activities (CALA), assessment instruments, contextualize CALA, facilitate learning and CALA execution, administer CALA assessment instruments; monitor, supervise and support learners during CA activity; mark CA records, keep CA records, profile learners' competencies, report performance of learners to stakeholders, ensure security of Continuous Assessment Learning Activities (CALA) scripts, and guard against malpractices (National Association of School Heads, 2021).

The teachers must provide comprehensive standardized assessment tools to guarantee success of continuous assessment (CA). There was no engagement of teachers for the implementation process and no budgetary preparation for its implementation in advance. The Ministry announced through the media that with immediate effect Continuous Assessment Learning Activities (CALA) would

be implemented in schools starting with 2021 candidates. The Ministry also commanded provinces around the country to arrange rushed workshops for all exam classes without taking into contemplation various factors which affect implementation of the initiative. There was no budget for such workshops and schools are expected to fund teachers and school heads attendance of such workshops. Therefore, it is against this background that this study seeks to analyse the use of Continuous Assessment Learning Activities being implemented by the Ministry of Primary and Secondary Education in Mutoko District, Zimbabwe(Cooper, 2016).

When United Nations Educational, Scientific and Cultural Organisation (UNESCO)declared a 'global learning crisis' in 2013, it led to the questioning of worldwide systemic process failures and brought together a Global Alliance, led by top-down organisations such as the Organisation for Economic Cooperation and Development (OECD), United Nations International Children's Emergency Fund (UNICEF), the World Bank and United Nations High Commissioner for Refugees (UNHCR). These organisations have been working tirelessly to address the issue of assessment which is undoubtedly limiting the provisions of a quality education. When formative assessments were first introduced in the 90's they were made popular by two British researchers, Paul Black and Dylan, Wiliam (Cooper, 2016).

In the current COVID-19 situation, where summative assessments have been questioned for their efficacy on a global scale, we need a system that is formative in nature yet considers final grading and allows all stakeholders to benefit and provide opportunities to intervene during ongoing learners' engagements; this is continuous assessment. Assessments require preparation, organising, marking, evaluation and analysis. Continuous assessment requires all of these areas throughout the entire learning process.

Continuous assessments are conducted when students are engaged in learning and are based on reflective teaching cycles, where data is collected on each student's learning journey continuously. This continuity allows teachers to make on the spot decisions to improve their practice and looks a lot like formative assessments. Summative assessments are conducted at key points in the educational process, and students are given a grade that reflect their achievements.

Alluding to this approach, Miskin's (2017) paper for UNESCO revealed that 'continuous assessment can be central to determinations about a child's school progress'. This is further evidenced when we turn to countries that are already getting it right.

Countries like Finland, Sweden and Estonia all rank in the top 10 of the Programme for International Student Assessment (PISA) ratings (2018) for successful, quality education and positive wellbeing in their students and teachers. In these countries, continuous assessments are the norms. Miller (2020) found that in Finland they are using both formative assessments and summative assessments successfully, putting them high on the PISA rankings. Continuous assessment is central to progress. furthermore, one in-depth review by SQA (2020) found that students in Finland are assessed continuously by their teachers in both comprehensive and upper secondary school, showing the benefit of embedding continuous assessment into every classroom. It is clear that continuous assessment is key. However, if continuous data is collated manually, can it account for the many variables that can challenge the learner to raise their potential?

In 2009, the Right to Education Act of India initiated a "no detention" policy, eliminating the use of high-stakes exams to determine promotion to the next grade. As a replacement for high-stakes exams as a means to evaluate students, the Right to Education Act mandated a system of "Continuous and Comprehensive Evaluation" (CCE; Government of India 2009). In the CCE framework, teachers are trained on how to frequently evaluate students using a variety of methods, along both academic and non-academic dimensions. A key component underlying the CCE's theory of change is that better tracking of children would allow (and lead) teachers to customize their teaching based on the current learning levels of individual students. The CCE scheme was designed to provide teachers—as well as students and parents—with frequent and broad-based feedback on performance. The primary aim is to allow teachers to customize their teaching based on the current learning levels of individual students. To this end, CCE's mode of assessment is meant to be "continuous," in that teachers identify students' learning progress at regular intervals on small portions of content (such as a single module or lesson)(Dawson, 2018).

This regular assessment can incorporate a variety of techniques, including unit tests, projects, and evaluation of class participation. In addition, CCE prescribes a more "comprehensive" assessment of student achievement than traditional testing: it assigns scores not only on the basis of scholastic

performance, but also on the basis of co-scholastic activities (such as arts, music, or athletics) and personality development as reflected in life skills, attitudes, and values.

The emphasis on continuous assessment is not limited to Zimbabwe alone; other African countries notably, Nigeria, Kenya, Zambia, Ghana, South Africa and Eswatini have adopted the same policy. National Policy on Education (NPE) (Federal Republic of Nigeria, 2013) observed that the existing practice (in most institutions of learning) of basing the assessment of students work on final examination and on one-short examination only is no longer tenable. The policy dictates in the NPE changed the old British system of education which was practiced in Nigerian schools to the 6-3-3-4 system, which was American in nature. The new policy which was introduced in early 1980s stood for six years of primary education, three years of junior secondary schools, three years of senior secondary schools and four years of higher education. Irrespective of level of schooling, CA was made mandatory as a key component of school assessment such that all assessments in primary education will only be by Continuous Assessment. At the junior secondary school, 70% of students' score shall be from CA while at the senior secondary schools and higher institutions, CA shall constitute 40% of the total marks obtainable (100) in every subject.

In Zambia, continuous assessment (CA) is defined as an on-going, diagnostic, classroom-based process that uses a variety of assessment tools to measure learner performance (MOE, 2015:5). Over the years, examinations have been used for selection and certification, without formal considerations on school-based continuous assessment as a component in the final examinations at Grade seven level. The Ministry of Education introduced School Based Continuous Assessment for two reasons: To improve teaching and learning and to collect school-based marks to be added to the final examination marks for certification and selection.

The education policy makers in Zambia had acknowledged the inherent benefits of continuous assessment in improving educational quality as reflected in the 1977 Education Reforms. The educational reforms' recommendation that continuous assessment be introduced as an integral part of the examinations results was not implemented at the primary school level due to a number of reasons, one of which was public apprehension. In particular, the competencies of teachers in carrying out objective assessment and the perceptions of teachers towards assessment are coupled with managing large class sizes at primary school level (Ministry of Education, 1992). The introduction of an Outcomes Based Curriculum in 2001 and the demand for more comprehensive

assessment systems that impact positively on learning achievement, has prompted educational policy to re-affirm the importance of School Based Continuous Assessment in enhancing education quality. Therefore, the latest Zambian education policy dubbed" Educating our Future" advocates the use of school based continuous assessment, and defines continuous assessment:

The main thrust of the Continuous Assessment Learning Activities is to give a fair assessment of the learning and development process of a learner during their tenure in the school system. In March 2021, the Zimbabwean government through the Ministry of Primary and Secondary Education, MoPSE announced the urgent revival of the continuous assessment framework for 2021 candidates. The government said the framework would be implemented for grade 7, form 4 and Upper 6, 2021 candidates. The program is part of the 2015 adopted new curriculum but had been shelved because of lack of resources among other challenges.

Chief Director (Secondary and Non-Formal education) in the Ministry of Primary and Secondary Education, Peter Muzawazi said Continuous Assessment Learning Activities would be "examining three domains – the cognitive domain, which is the knowledge domain we have always been doing – as well as the psycho-motor and affective domains. This will start with effect from November 2021. The Grade Seven, Ordinary and Advanced level teachers' training is now complete. The coursework will contribute 30 percent of the total examination mark with effect from the November 2021 examinations. It is actually an advantage to learners, over and above Maths, Science and English, we are broadening the curriculum to give them an opportunity to excel in other areas. We are moving into a situation where assessment has to be holistic and authentic because a learner's potential is not only what they keep in the head, but involves other skills.

The new competence-based curriculum is now broad, things like sport and visual performing arts which used to be extra-curriculum activities are now part of the curriculum. We now intend to develop the skills of every learner. A student can write a composition and answer comprehension questions in one and half hours, and then get an A in English Language; but how many people write a language as much as they speak? People speak much more, so we will be adding the speech component so that learners get an opportunity to make presentations before their peers, share a poem or song. These assessments will be part of Continuous Assessment Learning Activities."

1.2 Statement of the problem

CALA's introduction into the Zimbabwe School Curriculum has been received by all stake holders with mixed feelings. Learners and teachers have not been spared. While the government saw it fit to introduce CALA with all its benefits there are some unforeseen shortcomings that the researcher seeks to reveal. Purpose of Continuous Assessment is that the teacher can continuously assess student's learning outcomes in all three domains- Cognitive, Affective, psychomotor, particularly with regard to knowledge and understanding, procedural knowledge (making comparisons and estimates performing calculations, applying formulas), problem solving and other higher order skills.

Zimbabwe is one of the countries that embraced the implementation of continuous assessment. The Government saw it fit to introduce the CALA as a way of producing a wholesome student who can be productive as an individual. The skills deficit and imminent brain drain in the nation necessitated the introduction of CALA in our Schools. Learners who are passionate about particular subject areas may have been pushed away because they failed to meet some set standards on the theoretical assessment. The CALA comes in to give the learner an option in order for them to express themselves through an ongoing assessment of their performance. Teachers' knowledge and attitude towards continuous assessment (CA) practices could be said to be important factors in the implementation of continuous assessment in schools. This is because they are the major implementers of the curriculum at the classroom level. However, observation has shown that most teachers face challenges in the implementation and delivery of CALA in secondary school Physics.

Continuous assessment serves the purposes including providing information about the learners' status and progress of each student. It helps teacher to know, plan redesign the teaching in accordance with the needs of the students. It provides diagnostic information on strengths and weaknesses of the students' learning. It also provides feedback to the teachers for modification of curriculum targets and text books. It facilitates teachers in grouping of students for learning through various activities, provides criteria of grading and promoting students and counselling to students and their parents. The afore mentioned impact of continuous assessment on the quality of our education therefore justifies the research study.

Throughout the world nations have worked the adoption of continuous assessment as part of the formative assessment. This is due to the competence gaps created by summative assessment.

Continuous assessment should be incorporated into the final grading as this will allow all stake holders to benefit and provide opportunities to intervene during ongoing learner's engagements. The use of continuous has helped nations to improve their international ratings when compared with other nations. There is improved tracking of learner's performance and provision of feedback to teachers, students and parents. The primary aim of continuous assessment is to allow teachers to customise their teaching based on current learning levels of individual students.

However, observation has shown that most teachers face challenges in the implementation and delivery Continuous Assessment Learning Activities in secondary school Physics. While a number of teachers are knowledgeable about the need to undertake the researcher wants to know how helpful the Continuous Assessment Learning Activities is in terms of the leaner's' pass rate. The research seeks to establish whether or not the Continuous Assessment Learning Activities is helpful to the learner and the nation at large. Ever since the introduction of Continuous Assessment Learning Activities there was a huge outcry in the media in terms of complains coming from the parents, learners and teachers. The researcher took it upon herself to find out the challenges that led to the complaints about Continuous Assessment Learning Activities. It is against this background that this researcher carried out this investigative study to find out how secondary school teachers in Zimbabwe particularly in Mutoko district use Continuous Assessment Learning Activities in their subject areas.

1.3 Purpose of the Study

The purpose of this research is to determine the effectiveness of the use of Continuous Assessment Learning Activities (CALA) by identifying its impact on the academic achievements of learners, to explore how the delivery of Continuous Assessment Learning Activities (CALA) can be improved and to highlight the challenges faced by teachers in utilizing CALA

1.4 Main Research Question

Is CALA helping in the teaching and learning of O' level Physics in Mutoko district?

1.5 Sub-Research Questions

What is the impact of Continuous Assessment Learning Activities (CALA) on learner's academic achievements on O' level Physics?

What are challenges faced in the Implementation Continuous Assessment Learning Activities (CALA) in teaching and learning of Physics?

How best Continuous Assessment Learning Activities (CALA) be implemented in the teaching of secondary school Physics?

1.6 Research Objectives

The Following are the objectives of the study:

To investigate how CALA is delivered in Mutoko District schools

To identify challenges faced by stakeholders in the implementing of CALA.

To explore ways to improve the delivery of CALA in the teaching and learning of O' level Physics.

1.7Significance of the study

The beneficiaries of this study are the learners, the teachers, the parents, school heads and the Ministry of Primary and Secondary Education (MoPSE). Continuous Assessment Learning Activities' introduction into the Zimbabwe School Curriculum has been received by All stake holders with mixed feelings. Learners and teachers have not been spared. While the government saw it fit to introduce Continuous Assessment Learning Activities with all its benefits there are some unforeseen shortcomings that the researcher seeks to reveal. Purpose of Continuous Assessment is that the teacher can continuously assess student's learning outcomes in all three domains- Cognitive, Affective, psychomotor, particularly with regard to knowledge and understanding, procedural knowledge (making comparisons and estimates performing calculations, applying formulas), problem solving and other higher order skills.

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1.8 Delimitations

The study is delimited to Secondary Schools in Mutoko District, Mashonaland East. Observations and interviews were done on these schools alone. The research study is also confined to the use of Continuous Assessment Learning Activities (CALA) on the teaching and learning of O'level Physics only. The research also focused on the challenges that the teachers incur in using Continuous Assessment Learning Activities as an assessment tool. The research is focused on form 4 learners only due to inadequate resources to study all classes, only O'level Physics teachers will be considered because they have the subject of interest

1.9 Definition of key terms

Assessment – it is the process of collecting information about learners using different methods or tools for example tests, quizzes and portfolios

Continuous assessment- it is a form of educational examination which evaluates the student's progress or performance throughout the duration of a course. This is done in order not to rely on an examination at the end of the academic year. It a systematic, comprehensive and cumulative record of a student's cognitive, affective and psychomotor attainment within the period of schooling

Summative assessment- it is product oriented and also referred to as assessment of learning. It is used to measure student's learning progress of achievement at the end of a specific instructional period

Formative assessment- it is process oriented and also referred to as assessment for learning. It is an ongoing process to monitor learning, the aim of which is to provide feedback to improve teachers' instructional methods and improve students' learning

Grading- it is a way for educators to evaluate each individual students' 'performance and learning. Grading can include letter grades, percentages and even a simple pass/fail. Grades can be attached to physical activities like writing assignments, lab work, projects, reports and tests

1.11 Summary

This chapter outlines the international perspective to the use of Continuous Assessment Learning Activities (CALA) in schools, regional view of Continuous Assessment and the Zimbabwean

approach to CALA. The chapter gave the statement of the problem of the study. It also outlined the purpose of the research which is to analyse the use of CALA by identifying its impact on academic achievements of learners, to explore how the delivery of CALA can be improved and to highlight the challenges faced by teachers in utilizing CALA. The chapter also spelled out the main research question, sub research questions and research objectives. The beneficiaries of this study were mentioned in this chapter, delimitations of the study were also included.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This chapter looks at related literature concerning the use of Continuous assessment in secondary schools. Work by scholars on the impact that CALA has on learners will be discussed first. Secondly the chapter will discuss the main purpose of offering CA in schools and how it is intended to fit into the daily school timetable. The learner perceptions, teacher challenges as well as the challenges faced by learners will also be discussed with reference to other scholars.

2.2 The CALA

Many countries have adopted CA in their educational system and CA is designed and implemented based on educational policies (Liu, 2019). Therefore, countries have different types of CA including its implementation. These countries have observed that the existing practice (in most institutions of learning) of basing the assessment of students work on final examination and on one-short examination only is no longer tenable, hence they came up with continuous assessment which includes the regular evaluation of the learning process. The CA had different names in different countries as it was also administered differently. CA was or is a success in other countries and has failed in some countries. I'm going to explore two countries United states of America and Zambia where CA is successful and South Africa where it has failed

2.2.1 CA in America

In the American education system, continuous assessment is commonly referred to as "formative assessment" or "ongoing assessment." Formative assessment is a process of gathering evidence about student learning and understanding throughout the learning process. It involves various methods such as quizzes, classroom discussions, projects, observations, and feedback, which help both teachers and students track progress and make instructional adjustments (Miller & Davidson, 2023)

Generally continuous assessment is administered from early child development (ECD) to high secondary education (grade 12), with the CA specially designed to for each level. For example, for ECD, these assessments typically focus on monitoring a child's progress in areas such as cognitive development, social skills, and motor skills. According to Hernandez & Gonzalez

(2023), In elementary schools (grades 1-5 or 1-6), teachers may employ various assessment methods, such as regular quizzes, class participation, projects, and homework assignments, to evaluate students' learning progress and provide ongoing feedback. In junior high schools (grades 6-8 or 7-8), teachers employ similar assessment methods as in elementary schools, including quizzes, tests, projects, presentations, and class participation, to assess students' understanding of the curriculum and provide feedback. In high schools (grades 9-12), In addition to traditional exams, high school teachers use a variety of assessments, such as essays, research papers, group projects, oral presentations, and lab reports, to evaluate students' subject knowledge and skills. In Zimbabwe it is introduced at grade 6 in primary education and form 3-4, 5-6 in secondary education where they also use similar ways to those used in the United States.

In addition, the education system in America is decentralised into states, school districts and school, though they have common core standards as postulated by Arold &Shakeel (2021) who states that today's student population is more mobile than ever, as families "follow the jobs." Common core standards shared across geographical lines will help students develop increasingly complex skills regardless of what state, school district, or classroom they are in and we can use a common language to help students know and understand what they're learning. These states and districts are managed differently and have their way of doings things hence the implementation and assessment will never be the same while the education system in Zimbabwe is centralised where all administration is done at one place but the CA activities are school based which is also a source of inconsistence as standardisation becomes difficult. Furthermore, in United States of America there was thorough consultation, communication and training way before the CA was introduced in the education system while in Zimbabwe there was no consultation and proper training of teachers on continuous assessment before implementation such that most teachers don't even know how to design a CALA four years after its introduction Moreover, the number of learners in a classroom is another area of concern where in the United states the classrooms are very small with 25 to 30 learners as compared to Zimbabwe where find a class with 50 to 60 learners in big schools this may cause the implementation of CALA to fail (Sato & Atkinson 2023)

The CA has been of great help in assessment of learners in America as it has helped in many ways which includes Teacher Observation and Feedback, self-assessment of learners and reflection,

promoting metacognitive skills, improved student learning, reduced learners' anxiety, increased engagement and motivation, and improved feedback and personalisation

Teachers frequently use continuous assessment techniques such as classroom observation and providing immediate feedback to students, which allowed teachers to monitor students' progress, provide guidance, and make instructional adjustments accordingly. Formative Assessments, these are used to gather ongoing information about students' understanding and skills in real-time. These assessments are often low-stakes and can take various forms, such as quizzes, class discussions, projects, presentations, and homework assignments. The results of formative assessments helped teachers to identify areas where students may need additional support or instruction hence improving the teaching and learning (Zhao & Zhang, 2022) CA has helped in student self-assessment and reflection as it encouraged learners to reflect on their own learning progress and skills is an essential component of continuous assessment. Students can self-assess their work, set goals, and identify areas for improvement. This process promotes metacognitive skills and helps students take ownership of their learning. It's worth noting that the education system in the United States is decentralized, and practices can vary across states, districts, and even individual schools. Therefore, the extent and implementation of continuous assessment can differ significantly depending on the specific educational context. Improved Student Learning: - Studies have shown that continuous assessment, which involves regular feedback, formative assessments, and opportunities for revision, leads to better retention of knowledge and skills among students (Smith & Jones, 2021; Brown et al., 2022). - Continuous assessment allows teachers to identify learning gaps early and provide targeted support, leading to higher academic achievement (Miller & Davison, 2023). 2. Reduced Test Anxiety: - The shift away from high-stakes, summative exams towards more frequent, lower-stakes assessments has been shown to decrease student anxiety and stress related to testing (Kaplan et al., 2022). - This change in assessment approach has been particularly beneficial for traditionally underserved populations, who often experience disproportionate test anxiety (Nguyen et al., 2023). Increased Engagement and Motivation: - Continuous assessment encourages students to take a more active role in their learning, as they receive regular feedback and can adjust their study habits accordingly (Wilson & Robinson, 2021). - This approach has been linked to higher levels of student engagement and intrinsic motivation (Zhao & Zhang, 2022). 4. Improved Feedback and Personalization: - Continuous assessment

allows teachers to provide more frequent and detailed feedback to students, which can be used to tailor instruction and support individual learning needs (Thompson & Marsh, 2022). - This personalized approach has been shown to be particularly effective for students with diverse learning styles and backgrounds (Hernandez & Gonzalez, 2023). 5. Alignment with 21st-Century Skills: - Continuous assessment focuses on the development of critical thinking, problem-solving, and other essential skills needed for success in the modern workforce (Dunleavy & Kern, 2022). - This approach better prepares students for the demands of the 21st-century economy compared to traditional, high-stakes testing (Sato & Atkinson, 2023). Overall, the shift towards continuous assessment in the United States has been a positive development, leading to improved student learning, reduced test anxiety, increased engagement, and better alignment with the skills needed for success in the modern world.

Challenges in the implementation of continuous assessment in America include standardization, it is difficult to achieving consistency and standardization across different states, districts, as the education system is decentralized, with each state having its own standards and assessments. Implementing continuous assessment would require aligning these standards and assessments, which can be a complex and time-consuming process.

Introducing a new assessment system can face resistance from various stakeholders, including educators, parents, and policymakers. Some may be sceptical about the effectiveness of continuous assessment or concerned about the additional workload it may impose (Hammond & Singer, 2021). Overcoming resistance to change and garnering support for the new system can be a significant challenge.

Infrastructure and Technology. According to Pophan (2018) Continuous assessment often relies on technology for data collection, analysis, and reporting. However, not all schools have access to the necessary infrastructure or reliable technology resources. Ensuring equitable access to technology and addressing infrastructure gaps can be a challenge, particularly in under-resourced schools and districts.

Time Constraints. Guskey &Bailey, (2020) postulates that implementing continuous assessment requires a shift in the assessment paradigm, emphasizing ongoing monitoring and feedback rather than relying solely on high-stakes tests. This placed additional time demands on teachers, who already have a packed curriculum. Allocating sufficient time for continuous assessment while balancing other instructional responsibilities can be a challenge.

Data Management and Privacy. Continuous assessment generates a large amount of data that needs to be managed, analyzed, and stored securely. Ensuring data privacy and protection can be a significant concern, particularly when dealing with sensitive student information. Establishing robust data management systems and addressing privacy concerns are crucial for the successful implementation of continuous assessment (Marzano & Herflebower 2016)

2.2.3 CA in Zambia

In Zambia, Continuous assessment is known as School-based assessment (SBA) and it was introduced in 2006. The Ministry of General Education (MGE) oversees the implementation of continuous assessment in primary and secondary schools. The concept of continuous assessment is aligned with the country's education policies and curriculum frameworks, such as the Revised National Policy on Education (RNPE) and the Curriculum Framework for Basic Education. It was piloted in selected schools, districts and grades. Kabamwe (2018) postulates that the pilot coverage in the country was phased. The first phase covered sampled schools in three provinces, which began in 2006 with the grade 5s cohort that was to be followed up to 2008 when they would reach Grade 7 and sit for examinations. In 2007, the programme entered the second phase, where CA was introduced in three provinces. The third phase in 2008 was extended to the last three provinces. Eventual scaling up was done in 2010. It is offered from primary education up to tertiary education. The phased implementation was good in that it helped implementers to check for challenges and correct or improve on them before the final implementation contributing to the success of CA. In Zimbabwe the implementation was done at once without proper planning which may lead to failure of the CA project. In Zambia the ministry has developed a continuous assessment framework that provides guidelines for teachers on how to conduct assessments, and it has also provided training and support to teachers to help them effectively implement continuous assessment in their classrooms while in Zimbabwe there was no proper training and no support was offered to teachers for effective implementation of CA (Kamwi, 2020). In addition, CA in

Zambia emphasised on formative assessment while in Zimbabwe put greater emphasis on summative assessment (Muringa, 2020) postulate that while formative assessment is still an important component of the assessment system in Zimbabwe, it is not as heavily emphasized as it is in Zambia. Zambia's approach to Formative Assessment is aligned with the principles of assessment for learning, which emphasizes the use of assessment to support student learning and improve teaching practices (Black, 2020), instead, Zimbabwe's assessment system is focused more on evaluating student learning at the end of a learning period, and it is used to determine whether students are ready to move on to the next level of education (Muringa, 2020).

The assessment is conducted differently depending on the cognitive development of the pupils. For example, in junior primary level (grade 1-4) had their own assessment tools. A Grade 1-4 teacher in Zambia use several tools that are designed to help you plan your literacy lessons and assessment activities so that your learners can learn better. The first tool is the School-Based Assessment (SBA) Scheme and guidelines, which consists of assessments to be conducted daily, weekly, monthly, and at the end of each term (MGE, 2015) whereas in Zimbabwe continuous assessment was not included at lower junior level which may create problems for the learners when they start at senior primary level. In higher levels or grades learners will be assessed using much conventional ways as supported by Mumba & Ndhlovu (2019) who advocate that continuous assessment in Zambia typically includes a variety of assessment methods, such as class assignments, projects, presentations, quizzes, tests, and classroom observations. These assessments are conducted by teachers and are intended to measure students' understanding, application, analysis, synthesis, and evaluation of the subject matter. The teachers are to keep the following records daily marked subject registers, copy of the curriculum of the programme, schemes of work, lesson plans, student performance sheets, samples of tests and assignment question papers, marking guides, samples of question papers for projects, samples of projects, master copies of continuous assessment results and student’s subject files as part of continuous assessment (Mutambo, 2018)

Continuous assessment has been a successful practice in Zambia's education system, with various studies and initiatives alluding to its effectiveness. Here are some key factors that have made continuous assessment a success in Zambia:

Emphasis on Formative Assessment: Continuous assessment in Zambia places a strong emphasis on formative assessment, which is used to monitor student progress and provide feedback to improve learning outcomes. This approach has been shown to improve student performance and increase engagement in the learning process (Nakazwe & Mwanza, 2020).

Zambia's continuous assessment incorporates a range of assessment methods, including classroom-based assessments, periodic tests, and project-based assessments. This diversity of assessment methods allows for a more comprehensive evaluation of student learning and helps to reduce the risk of bias (Chansa-Kabali, 2020).

Teacher Professional Development: To ensure the effective implementation of continuous assessment, the Zambian government has invested in teacher professional development programs. These programs aim to enhance teachers' assessment skills, particularly in the areas of formative assessment and the use of technology in assessment (Kabwe, 2020).

Technology Integration: Zambia has incorporated technology into its continuous assessment practices, using digital tools to support the assessment process. This integration has helped to improve the efficiency and accuracy of assessment, as well as enabling real-time feedback to students (Mwape, 2020).

Collaboration between Teachers and Students: Continuous assessment in Zambia encourages collaboration between teachers and students. Teachers work closely with students to identify learning goals, provide feedback, and monitor progress, while students take an active role in their learning, setting goals and reflecting on their progress (Nakazwe & Mwanza, 2020).

Parental Involvement: Zambia's continuous assessment also involves parents in the assessment process. Parents are encouraged to participate in parent-teacher conferences, where they can discuss their child's progress and receive feedback from teachers (Chansa-Kabali, 2020).

Curriculum Alignment: Continuous assessment in Zambia is aligned with the curriculum, ensuring that assessments are relevant to the learning objectives and outcomes. This alignment helps to ensure that assessments are meaningful and useful for both teachers and students (Kabwe, 2020).

Monitoring and Evaluation: The Zambian government has established a monitoring and evaluation framework to track the effectiveness of continuous assessment. This framework helps

to identify areas of success and challenges, enabling the government to make informed decisions regarding the improvement of assessment practices (Mwape, 2020).

In conclusion, the success of continuous assessment in Zambia can be attributed to a combination of factors, including the emphasis on formative assessment, the use of various assessment methods, teacher professional development, technology integration, collaboration between teachers and students, parental involvement, curriculum alignment, and monitoring and evaluation. These factors have contributed

The implementation of continuous assessment is beneficial if all the necessary resources are available but there are challenges that were faced during implementation in Zambia such as the following, time constraints, continuous assessment requires regular and ongoing assessment activities, which can place additional burdens on teachers in terms of time management and workload. Teachers may struggle to balance continuous assessment tasks with other teaching responsibilities, resulting in limited implementation and reduced quality of assessments. Mumba, & Ndhlovu, (2019).

Cultural factors and traditional assessment practices are other challenges Zambia has a diverse cultural landscape, and traditional assessment practices may still hold significant influence. The shift towards continuous assessment may face resistance due to cultural beliefs, perceptions, and traditional examination-focused approaches to assessment. Ndhlovu, (2017).

According to Kabambe (2018). One of the major challenges was the large class sizes. He said that, teachers cited the large class sizes in most primary schools as major challenge. It is common to find classes of 60 and above in the Zambian classroom.

Teachers indicated that the workload became higher as they were required to mark and keep records of the progress of all learners. These became impossible as they could not manage to perform their duties as expected due to big class size. the majority of the teachers complained that they had inadequate teaching and learning materials. The difficulty with learning materials mainly affected the availability of appropriate teaching and learning materials in new curriculum. Monitoring was another area in which the overall implementation experienced challenges. The findings from both the monitoring visits and the formative evaluation study revealed that there was inadequate monitoring conducted by the district officials who had been tasked to monitor and

support the teachers in implementing CA. There was need for the District offices to closely monitor the teachers' implementation so that they could be given the necessary support.

2.2.4 CA in South Africa

Since the dawn of democracy, concerns from various quarters of the society have been raised about deterioration in South Africa's education standards. Various studies conducted both domestically and internationally on educational achievement in South Africa have drawn attention to the underperformance of South African children in key learning areas such as literacy, mathematics and science. According to Taylor, van der Berg and Burger (2012) cited in Maphalala (2021) the Systemic Evaluations undertaken by the Department of Basic Education (DBE) and the Quality Learning Project have revealed that most children are performing well below the standards required by the curriculum. Driven by the government's desire to address the observed educational deficiencies and to respond effectively to issues of public accountability, quality education, transparency, and increased public confidence, in 2008 the DBE introduced standardized Annual national assessment (ANA) tests (Department of Education [DOE], 2008 (Bhengu, 2020). ANA is a grade-specific as it is applied in language and mathematics and science for Grade 1 to Grade 6, and Grade 9 learners while in Zimbabwe it is implemented in grade 6-7, form 3-4 and 5-6 which might lead to accurate results during assessment as there will be no enough information on the development of the learner over the whole period of the educational process which might have contributed to the failure of ANA in SA In Zimbabwe's continuous assessment is more focused on covering the entire curriculum, while South Africa's assessments are more focused on selected subjects (part) of the curriculum as supported by Maphalala (2021) who says that the ANA tests have been introduced in specific areas which are literacy, mathematics and science and to help teachers to design remedial instruction. In addition, in Zimbabwe CA has limited stakeholder involvement whereas in SA involves a range of stakeholders who includes parents, teachers, learners and the community (Nwenya, 2020). He further postulates that in terms of teacher training SA teachers received more training and support in the implementation of CA than their Zimbabwean counterparts which is an area of concern in the implementation of CA in Zimbabwe

First implemented in 2010, the ANA represent one of the largest education initiatives undertaken in the country with the primary aim of improving learning through effective teaching. It had some

benefits which had a good impact on the education system which includes reduced test anxiety on learners, increased student engagement, improved teacher planning and enhanced teacher feedback

To begin with on reduced test anxiety, Continuous assessment helped to reduce test anxiety among students, as it provides a more comprehensive picture of their knowledge and skills. By spreading assessments throughout the academic year, ANA can help to alleviate the stress associated with high-stakes testing (Bhengu, 2020)

In addition, it increased student engagement in that ANA encourages students to take an active role in their learning, as they are continuously engaged in the assessment process. This can lead to increased student motivation and engagement, as well as a greater sense of ownership over their learning (Makalela, 2020).

Furthermore, CA improved teacher planning and preparation as ANA provides teachers with valuable insights into student learning, which can help to inform their planning and preparation. By analyzing ANA data, teachers can identify areas where students are struggling and adjust their instruction accordingly (Herman, 2020).to add on, it was found to enhanced teacher feedback as it allows teachers to provide students with regular feedback on their progress, which can help to identify areas where students need additional support. This timely feedback enables teachers to adjust their instruction and provide targeted interventions to help students who are struggling (Koekemoer, 2020).

Though ANA had some positive contributions mentioned above it had many challenges which led to its phasing out. These include lack of clarity and communication, overemphasis on testing, limited scope, inequitable resources, lack of alignment with the curriculum and high stakes

Lack of clarity and communication: One of the main reasons for the failure of ANA is the lack of clarity and communication around its implementation. Teachers and students have complained about the confusion surrounding the assessment criteria, grading system, and reporting requirements. According to a study published in the Journal of Education and Human Development, "the lack of clarity and consistency in the implementation of ANA has led to confusion and frustration among teachers, students, and parents" (Makofane, 2020).

Overemphasis on testing: ANA has been criticized for placing too much emphasis on testing and not enough on learning. The constant assessments have led to a culture of teaching to the test,

where teachers focus on preparing students for the next assessment rather than providing meaningful learning experiences. This has resulted in a narrow focus on cognitive skills, with little attention paid to other important aspects of learning, such as creativity, critical thinking, and social-emotional development. As noted in a report by the South African Institute of Race Relations, "the overemphasis on testing has led to a culture of compliance rather than a culture of learning" (SAIRR, 2022).

Limited scope: ANA only assesses a limited range of subjects, primarily focusing on literacy and numeracy. This narrow focus neglects other important subjects, such as science, social studies, and the arts, which are essential for a well-rounded education. As a result, there is a risk that students will not develop a broad range of skills and knowledge, which could limit their future opportunities and potential for success. According to a study published in the Journal of Curriculum and Assessment, "the limited scope of ANA does not provide a comprehensive picture of student learning and may lead to a narrow focus on tested subjects" (Wright, 2020).

Inequitable resources: ANA has been criticized for perpetuating inequities in education, as schools with more resources are better equipped to prepare students for the assessments. This means that students from disadvantaged schools may be at a disadvantage, as they may not have access to the same quality of instruction or resources. As noted in a report by the Department of Basic Education, "the unequal distribution of resources and opportunities remains a major challenge in the implementation of ANA" (DBE, 2020).

Lack of alignment with the curriculum: ANA has been criticized for not being aligned with the curriculum, which can lead to a mismatch between what is taught in the classroom and what is assessed. This can result in a situation where teachers are forced to teach to the test, rather than focusing on the broader curriculum. As noted in a report by the South African Council of Educators, "the lack of alignment between ANA and the curriculum can lead to a narrow focus on testing, rather than a focus on meaningful learning" (SACE, 2020).

High stakes: ANA has high stakes attached to it, as the results are used to make important decisions, such as school evaluations, teacher performance assessments, and student promotions. This pressure to perform can lead to cheating, which can undermine the validity and reliability of the assessment results. According to a study published in the Journal of Education Policy and

Practice, "the high stakes associated with ANA can create a culture of cheating, which can compromise the integrity of the assessment" (Mncube, 2020).

2.2.5 CA in Zimbabwe

Since 2014, the Ministry of Primary and Secondary Education (MoPSE) has embarked on a comprehensive national curriculum reform process which is meant to enhance the quality of education in Zimbabwe. A new competence-based curriculum framework was developed and finalized in 2015 whose phased implementation commenced in 2017. Several innovations were introduced in the new curriculum with broad implications for stakeholders at all levels (MoPSE, 2021). Continuous Assessment as part of the new curriculum being implemented will see learners being marked from tasks and projects given by their teachers during normal learning, and also final examinations. The Ministry of Primary and Secondary Education, through the Zimbabwe School Examinations Council (ZIMSEC), introduced CALA in 2021 as a candidate assessment procedure that requires pupils to perform, demonstrate their knowledge, understanding and proficiency in their learning areas before the main public exam. Under CALA, learners are supposed to carry out projects and tasks in schools, which will constitute 30% of their coursework for the final examination under the Zimbabwe School Examinations Council (ZIMSEC) for each subject. The development will see students being assessed from both the course work and the final exam unlike when they were graded using the final exam mark only in the past (Nyamadzawo et al 2021). According to Dziwa et al (2021) The Ministry of Primary and Secondary Education, through the Zimbabwe School Examinations Council (ZIMSEC), introduced CALA in 2021 as a candidate assessment procedure that requires pupils to perform, demonstrate their knowledge, understanding and proficiency in their learning areas before the main public exam. Under CALA, learners are supposed to carry out projects and tasks in schools, which will constitute 30% of their coursework for the final examination under the Zimbabwe School Examinations Council (ZIMSEC) for each subject. The development will see students being assessed from both the course work and the final exam unlike when they were graded using the final exam mark only in the past. The CALA is implemented only in examination classes (grade 7, form 4 and form 6), where learners are given five projects per subject area for all subjects taken.

2.2.5.1 Impact of CALA on academic performance

Continuous assessment has not been an activity performed one time but a process of progressing. It involves the way of checking the learning techniques in an organized and cautious manner, reflecting and modifying them. If the teacher conducts an ongoing evaluation in the classroom, it is known as continuous assessment (Samiullah&Anjum, 2017). The data regarding the pupils' progress provides feedback on a regular basis. This data enables the teachers to improve the teaching and learning process. Moreover, they also learn about the categories of pupils: those who need remedial sessions and those who can proceed further to an advanced level. When these data are used by teachers to make decisions

about next steps for a student or group of students, to plan instruction, and to improve their own practice, they help inform as well as form practice; this is formative assessment. When data are collected at certain planned intervals, and are used to show what students have achieved to date, they provide a summary of progress over time, and are summative assessment. Both types of assessment are important and useful for the purposes they serve. The greatest benefit to students is when there is alignment of what is valued in science learning across the continuum of formative to summative assessments (Morales et al 2022)

Through continuous assessment, teachers can measure the usefulness of their teaching strategies. In addition, continuous assessments serve as a pointer of the progress made at certain levels. As a result, the pupils are able to observe their levels of attainment and to visualize their progress (Farokhnia, 2017). The continuous assessment approaches influence the quality of teaching in a positive manner only when the learning and assessment methods are employed effectively; moreover, they have a significant effect on the content that is taught and the manner in which it is taught. However, any mistaken belief of continuous assessment on the teachers' part could result in a wrong application thereby resulting in undesirable effects. Therefore, a continuous follow-up is required for the teaching, learning process. The various aspects of the learning activities of pupils should be measured using a variety of aspects (Iqbal, 2017). Continuous assessment promotes interaction between pupils and teachers. Such interaction greatly affects their academic performances.

Continuous assessment promotes dialogue among teachers and pupils to acquire knowledge in order to improve the teaching and learning process. With the help of continuous assessment, it

becomes easy for teachers to find out what pupils in their classes know and are able to do. Individual and group assignments and tasks are also part of continuous assessment. They through positive impacts on academic performance of pupils lead them to become competitive participants in class activities. Day et al (2018)asserted that regular individual assignments generate higher pupil learning and achievements because they form sources of feedback on the performance of the pupils and aid students to develop critical mind and good study habits. Written tests, take-home assignments and recap exercises dominated teachers' continuous assessment strategies,

Continuous assessment makes the learning process interesting and engages both the pupils and teachers in continuous learning process. According to Vaessen et al (2017), the students that are assessed using continuous assessment increased their engagement and knowledge of the content. Continuous assessments are the pivot on which the wheel of teaching and learning process rotates. According to (Day et al, 2018), By using continuous assessment strategies and tools, you are able to capture what your students are doing with and without your intervention. Whether you are a removed observer or sitting and listening closely as you watch your students and document what you see, the information you glean helps you to determine next steps to support their growth. At times this support is immediate and happens in the moment you suggest a new material for a group of students to use in their investigation, or help a student further understand a concept by offering an explanation. the use of continuous assessment is the most significant aspect of influence for pupils' effective performance. (Jengeta, 2021) showed that the availability of continuous assessment in learning process has the potency for motivating and focusing learner's attention on the lesson being presented. For EFL teachers, continuous assessment is important to see progress of some skills. It helps teachers to make necessary observations and gather information about their pupils learning abilities.

Continuous assessment enables the teachers to make decisions about the progress of their pupils. It provides them ample chances to re-teach a topic and judge their weak and strong areas. The teachers often communicate with their pupils and inquire whether they are learning or not. According to (Cooper, 2016)continuous assessment does not mean testing often; rather it means communicating with the pupils often to find out whether they are truly learning or not. The Zimbabwean government adopted CALA with the intention of improving the quality of education in the country. CALA, was introduced as a way to provide students with a more comprehensive and

hands-on learning experience. Under the CALA system, students were required to complete various projects and assignments throughout the school year, rather than just relying on traditional exams. The idea behind this was to encourage students to develop critical thinking skills, problem-solving abilities, and creativity.

The government also saw CALA as a way to address the issue of exam cheating, which had become a major problem in Zimbabwe. By shifting the focus away from exams and towards continuous assessment, the government hoped to create a more fair and transparent education system.

Overall, the adoption of CALA was part of a larger effort to modernize and improve the education system in Zimbabwe.

2.3 Purpose of CALA

Purpose of Continuous Assessment is for the teacher to continuously assess pupil's learning outcomes in all three domains- Cognitive, Affective, psychomotor, particularly with regard to knowledge and understanding, procedural knowledge (making comparisons and estimates performing calculations, applying formulas), problem solving and other higher order skills. Continuous assessment serves the purposes including providing information about the learners' status and progress of each pupil. It helps teacher to know, plan, redesign the teaching in accordance with the needs of the pupils. It provides diagnostic information on strengths and weaknesses of the learners' learning. It also provides feedback to the teachers for modification of curriculum targets and text books.

CALA facilitates teachers in grouping of pupils for learning through various activities, provides criteria of grading and promoting students and counselling to students and their parents. It decides teacher training method for a program, faculty or staff by means of continuous assessment, the tutor adopts his or her teaching methodology according to the needs of all learners so each of the students has a chance to learn and succeed. By frequently observing the aptitudes of the learner that what they know and what they can do, the teacher can make sure the success of every pupil. Everyone is provided with an opportunity to succeed when it is applied properly (Dawson, 2018)

Continuous assessment provides the overall general picture of an individual; this could be seen in the aspect of record keeping. The progress of the child in the school, examination, performance of tasks and even taking decision in academic performance of the child are all being kept in the

cumulative record folder. Thus, the overall picture of the child is made availableContinuous Assessment takes care of the performance of the child during the period of education, and any assessment that does this, is seen to be more valid and shows the learner overall ability than a single examination at any point that it may be required(Vurayai, 2021).

Through the Continuous Assessment Framework, learners are groomed, not only to know, but do whatever they would have learnt in school and acquired via non-formal instruction, starting from Early Childhood Development (ECD) to secondary level. The 2021 Grade Seven candidates, whose input will be assessed from 2017, when the new curriculum came into effect, to date, will benefit from the competence-based framework. Ultimately all learners will benefit.

The new approach will eventually contain the challenges afflicting many African governments stuck with hordes of degree and diploma holders who cannot tell six from nine, because they have been made to believe that Western education forms are the gateway to the good life. It is worrisome sometimes to know that a nation may invest vast resources in individuals who may not even be worth it in the end.

2.4 Learner perceptions of CALA

Under this older practice, pupils did not receive adequate feedback along the way about their learning and did not know how well they were progressing until the educational cycle was finished and it was too late. To correct the short coming of this older educational practice, educators now advocate assessment that is more frequent so that pupils and teachers have more about learning progress. It is this more frequent assessment that is called continuous assessment. Frequent interaction between pupils and teachers means that teachers know the strengths and weaknesses of their learners. These exchanges foster a pupil-teacher relationship based on individual interactions. Pupils learn that the teacher values their achievements and that their assessment outcomes have an impact on the instruction that they receive (Bridges, 2015).

The learner is active in creating new knowledge; the teacher undertakes the role of tutor, supervisor, and co-learner. Learning and teaching are no longer viewed as two separate processes but as an interactive process. As a result, continuous assessment functions as a link between learning and teaching .(Paul, 2016) notes that continuous assessment, unlike traditional tests, can document “a story for every student-and what is the ultimate goal of evaluation but to give us the

knowledge to be able to reflect up on, discuss and assist a student's journey through the learning process(Agonafer, 2015) confirms that pupils should view continuous assessment "as an opportunity to reflect upon and celebrate their effort, progress, and improvement" . Therefore, this is to mean that continuous assessment becomes a diagnostic tool that provides feedback to the learner and the teacher about the suitability of the curriculum and instructional materials, the effectiveness of the teaching methods, and the strengths and weaknesses of the students. Furthermore, it helps to demonstrate to learners that they are making progress.

2.5 Methods

By means of continuous assessment, the tutor adopts his or her teaching methodology according to the needs of all learners so each of the students has chance to learn and succeed. By frequently observing the aptitudes of the learner that what they know and what they can do, the teacher can make sure the success of every pupil. Everyone is provided with an opportunity to succeed when it is applied properly (Agonafer, 2015)

2.5. 1 Take home assignments

Take home assignments are set and moderated by senior academics in the department. They follow the course team concept adopted by the Faculty of Education when they set and moderate each assignment. All the take-home assignments are prepared according to the guidelines and common format accepted by the department. One of the main conditions expected by the particular course team is to provide a practical outlook and research-based approach with the theoretical perspective through the take-home assignments.

2. 5. 2 Activity Based Assignments

Activity-based assignments are conducted as interactive sessions in day schools for all the courses at every regional and study centre. The main objective of conducting activity-based assignment is to improve students' presentation skills, leadership skills and collaborative learning skills, etc. Relevant learning sessions and main themes for each activity-based assignment are given to the student teachers at the inaugural session of the programme. Student teachers are expected to participate in the activity-based assignment day schools with prior preparation.

2. 5. 3 Homework Instruction

Homework instruction builds on exercises taught in the classroom to improve speed, show mastery, evaluate work, research assessments, and maintain basic skills over time. Teachers more commonly delegate homework practice and planning because it can be more convenient and time-consuming. Homework practice is most commonly used in arithmetic and spelling to improve spelling knowledge and fluency in math information. Extension Homework reflects on facilitating the transition from past learning to new activities(Bassey, 2015).

2. 5. 4 Oral and written tests

Through the oral and written tests, the academic performance of students can be improved. The written exam is an exercise intended to test and evaluate the awareness, talents and abilities of test-takers. Through weekly written tests pupils can be judged how much they learn within a week. Weekly written test improves the students' academic performance. Through monthly written tests can be judged how much students learn within a month. Monthly tests also improve students' academic performance. (Jengeta, 2021) also discussed that the continuous assessment technique home assignment is a regular assessment of students, which enhance learning. A similar finding is seen in the current study that home assignment develops self-discipline and encourage the student to take responsibility for completing their work.

It is recommended that continuous assessment techniques such as oral tests, written tests, home assignments and recap exercises should be used for enhancing academic performance at all levels particularly at secondary level pupils.

2.6 Challenges

A new curriculum which was partly based on Nziramasanga's report (1999), introduced an 'outcome-based curriculum. The outcome-based curriculum is broad-based curriculum which links employment related skills with school content in sync with the new global trajectory(Bassey, 2015). In terms of assessment methods, the old curriculum which was inherited from the Rhodesia government was criticized for depending much on summative evaluation as its mode for assessment.

In 1952, sixty-two years after settler occupation, there was no secondary school for coloureds and Asiatic (Asians); and there was one high school (Goromonzi established in 1946) for Africans. In 1968, there were only six secondary schools for Africans with only two of them offering Advanced-Level classes. Only two percent of black children were allowed into Form One, and only one percent were allowed into O-Level. Just a handful of those allowed into O-Level would make it to A-Level. With only one university before 1980, the bottlenecking continued to hinder progress in the academic direction for blacks. The colonial agenda was to see to it that blacks would not outnumber whites at university. In the 1960s only a third of the 300 students at the University of Zimbabwe (University College of Rhodesia and Nyasaland), which opened its doors in 1952, were blacks and less than a dozen of them were Asians and coloureds.

Hungry for education in a quest to improve their lot, and conscious of the bottleneck system against them, the two percent of black children allowed into Form One would achieve at least a 70 percent pass rate through hard work and determination. For the 98 percent of black children, school practically ended at Grade Seven, hence, the pride exhibited by those that got to O-Level, albeit, without any passes. Trained to be employees, black youths found themselves with so much time on their hands and nothing to do after "being done" with school, thus compounding an already precarious socio-political situation. The colonial education system was a repressive non-thinking machine subtly designed to keep the African poor; physically, politically, socially, spiritually, mentally and psychologically. The African was never given opportunities to acquire skills. It was a collective project that taught black people to be docile and obedient consumers of instructions dubiously called knowledge or education.

Independence in 1980 has not only opened up opportunities for blacks through increased numbers of primary and secondary schools, but offered avenues for academic pursuit in institutions of higher learning. By 2019, there were 2 871 secondary schools in Zimbabwe as compared to 177 in 1979. In 2019, there were 6 288 primary schools, a significant gain on the 1979 figure of 2 401. In the same year (2018), 239 441 candidates wrote Zimsec O-Level examinations. In 2023, 296 464 sat the examinations with 31,6 percent of them attaining at least five subjects, down from the 32,83 percent recorded in 2018. Based on numbers, 93 682 candidates passed at least five O-Level subjects in 2023, thus marginally gaining on the 1980 (7 800) and 1990 (66 000) figures. In 2023, 50 774 candidates wrote two or more subjects at A-Level with 42 169 of them obtaining Grade E

or better in two or more subjects, translating to 83,1 percent pass rate, an increase of 1,2 percentage points from 81,9 percent recorded in 2018.

The number of female candidates that sat the 2023 A-Level examinations was 19 877. Out of this number, 19 689 wrote two or more subjects and 17 525 passed two or more subjects, yielding an 89 percent pass rate. Zimbabwe now boasts of 13 polytechnics, 13 teachers' colleges, 43 vocational training centres and up to 16 quasi-Government and independent research institutions. In addition, the country has 13 State universities and seven private ones. While these figures may be impressive, more still needs to be done in terms of creating a complete individual with the agency to probe the reasons for being and interrogating the world around him/her without having to adhere to inflexible set curricula.

Examinations should not be used as determinants of intelligence, for knowledge go beyond bookish learning. Individual destinies are not only shaped by academic achievements. As Karl Marx avers, "Education must constitute the basis of Man's development of his vocational, cultural and political growth." Hence, the individual should be able to contribute to his own vocational, cultural and political growth, and that of the broader constituencies that make it possible to change outcomes for the common good(Maravanyika, 2018).

African governments should move away from the colonial curricula aimed at creating employees, and not employers. There is a need, therefore, to relook at the curricula used in primary, secondary and tertiary institutions for them to be able to mirror societal needs. This is why the recent pronouncements by Primary and Secondary Education Minister Ambassador Cain Mathema that starting from 2021, all examination classes will be subjected to a new model which will combine marks for continuous assessment and final examinations, are apt and commendable.

2.7 Challenges faced by teachers

The whole essence of CALA is the blending of theory and practice. The efficacy of continuous assessment learning area will never be in any serious doubt if properly planned. The basis of such success is robust engagement of teachers as the implementers of educational reforms, availing resources by state for workshops and successful implementation based on developed standardized tools of assessment and interoperability, as well as adequate time for piloting the intended reforms before implementation. Broad engagement of teachers as the implementers is crucial as they in

essence develop CALA, assessment instruments, contextualize CALA, facilitate learning and CALA execution, administer CALA assessment instruments; monitor, supervise and support learners during CA activity; mark CA records, keep CA records, profile learners' competencies, report performance of learners to stakeholders, ensure security of CALA scripts, and guard against malpractices (National Association of School Heads, 2021).

The teachers must provide comprehensive standardized assessment tools to guarantee success of continuous assessment (CA). There was no engagement of teachers for the implementation process and no budgetary preparation for its implementation in advance. The Ministry announced through the media that with immediate effect CALA would be implemented in schools starting with 2021 candidates.

The introduction of the new curriculum in Zimbabwe was deterred by shortage of resources, both human and material. This was consistent with literature as (Bridges, 2019)had similar observation when he found that many teachers complained about shortage of resources when CA was introduced in Zambia. Another finding also showed that class sizes needed to be reduced to manageable levels(Cooper, 2016) through recruitment of more teachers when introducing new innovations.

Results showed that poor schools were the worst affected by the shortage of resources because they could not afford to fund teachers for attending workshops. Neither did they acquire stationery for the CA program thereby putting them at great disadvantage. Therefore, there was a general unpreparedness by teachers to implement the new curriculum in schools and this was as a result of the unavailability of resources as well as increased load on both teachers and learners. This triggered resistance to the implementation of the CA. (Abejehu, 2016) contend, teachers had challenges in syllabus interpretation and lacked resources such as instructional media. Hence were not equipped to execute the new curriculum aspect. Teachers could not perform their assigned tasks because they were not knowledgeable about the curriculum tasks or projects.

Researched Literature shows that teachers should be clear about the materials such as knowledge content, teaching methodology of the curriculum as well as experience for them to effectively implement a curriculum change (Oguejiofor et al 2023). To support this view, they allude that teachers should have adequate knowledge about the CALA first and fore most because teaching is influenced by teachers. Thus, teachers should not grope in the darkness but should provide the

light to learners.(Henry, 2020) adds that lack of professional development for teachers working with curriculum inhibited the implementation. Thus, the fact that teachers were not prepared to implement the curriculum.

2.8 Research Gap

CALAs have been in use for time in teaching and learning of physics in Zimbabwe and results show that even though learners are getting high marks in CALAs this is not replicated to their final exams

2.9 Summary

This Chapter reviewed what other researchers gathered concerning the use of CALA in Secondary Schools. Firstly, the Impact that CALA has on the Performance of learners was discussed, learners academic Performance is key in the Use of CALA in the Education Field. The use of different methods of formative Assessment that are applied in the form of CALA were discussed. CALAs took the form Of Home works, Oral tests, experiments and Projects. This Chapter also reviewed literature on the Perceptions and Experiences of the Learners since the adoption of CALA. The Chapter finally discussed the Challenges faced by the Teachers in the Utilization of CALA as a tool of Formative Assessment.

CHAPTER 3 METHODOLOGY

3.1 Introduction

This chapter provided details on the procedures undertaken in data collection and analysis. It also focused on the essential components of research notably the research design, location of study, population, sample size, sampling method, research instruments and data analysis procedures. The researcher evaluated the strengths and weaknesses of the research instruments used in the study.

3.2 Theoretical framework

The qualitative research methodology was employed in this study. It was adopted as qualitative research enabled the study to obtain data which upon interpretation brings an in-depth understanding of phenomena. Qualitative research is the study of the nature of phenomena, which includes their quality, different manifestations, the context in which they appear, or the perspectives from which they can be perceived, but excludes their range, frequency, and place in an objectively determined chain of cause and effect (Eze, 2023). He further highlights that qualitative research involves gathering and analysing non-numerical data (such as text, video, or audio). According to Haradhan (2018), Qualitative research is described as an effective model that occurs in a natural setting and enables the researcher to develop a level of detail from high involvement in the actual experiences It can be used to uncover intricate details about a situation or to spark fresh research concepts.

This study adopted a qualitative case study approach. Qualitative case study as an approach to research facilitates exploration of a phenomenon within its context using a variety of data sources. This ensures that the issue is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon to be revealed and understood. Qualitative case study was used because it enables the researcher to gain an understanding of the participants' views in their natural environment or setting. Random sampling was used to select 20 Physics learners from Mutoko High and Mutoko Central High schools in Zimbabwe. In this selection method, all the individuals have an equal opportunity to participate in the study where the selection process is entirely based on chance. The simple random sampling has benefit associated with it. It ensures unbiased, representation, and equal probability of the population (Noor et al 2022). Random sampling was selected as it affords participants equal opportunities of being included in the study

and to understand the prevailing situation. Cluster sampling was employed to group the high schools into rural and urban centres to ensure that all categories of high and secondary schools found in Zimbabwe located in socio-economically diverse communities were represented. Equal number of schools from rural areas and urban centres catering for both Day and Boarding schools would ensure equal representation of all schools from different socioeconomic communities. The representative sample will be selected from 4 urban public schools and 6 rural public schools. The schools were selected on the basis of accessibility, availability and that they had the variable - teaching and learning of Physics. Teachers were considered on the basis that they are teaching O' Level Physics at their respective stations.

3.3 Research Paradigm

The study was guided by the pragmatist paradigm. Kaushik& Walsh (2019) contends that pragmatism is preoccupied with issues that produce tangible results and provide solutions to problems. The approach demands that the researcher focuses on the problem and employs all applicable methods to unravel the problem. This indicates that what is central is the research question under investigation and applying pluralistic strategies to gain information about the problem. The approach is realistic and practically orientated to solving real life situations, and is therefore more likely to result in change in practice. The pragmatist paradigm has been selected by the researcher on the basis that the problem under investigation emanates from a situation and calls for use of multiple methods to gain knowledge about the prevailing situation and possible solutions to enhance effective teaching practice

The paradigm inevitably informs the research methodology and design. Hence, the study was able to select appropriate methods leading to successful execution of the research process. Under interpretive research paradigm, individuals seek to understand the world they live in by deriving personal meaning of certain objects or issues based on their experiences. Proponents of interpretivism focus on how individuals interpret the world and want to understand the meanings that guide the people's choices. Interpretivism is linked to constructivism world view with the latter paradigm focusing on transforming the current social order. Hence, the intention of the study was to interpret the meanings others have about the world and how they would view the use of CALA in the teaching and learning of O' Level Physics.

3.3 Research Approach

The research chose the qualitative research methods approach to provide a deeper understanding of the research problem. The approach was favoured since qualitative research approach is an in-depth study where observation techniques are used to collect data from people in their natural settings as purpoted by Henry, 2020. Special importance is attached to behavioural sciences where the aim is to discover the underlying motives of human behaviours, views, opinions, choices, preferences, likes or dislikes. Qualitative research is able to thoroughly examine problems in education that exist in different settings so as to come up with suitable recommendations (Makuvaza, 2018). Qualitative research is concerned with small groups of participants. However, there are limitations when qualitative research is being used. Some of the limitations are that quality is likely to be biased and compromised since the approach is mainly dependent on the researcher's ability and interpretation and that it involves large quantities of data which is laborious to transcribe. (Reuge, 2021) says that qualitative approach is concerned with subjective assessment of attitudes, opinions and behaviour and research becomes the function of the researcher's insights and impressions. The study intends to follow a descriptive survey design during data collection. A descriptive survey attempts to ascertain the characteristics of a specific population, either at a specified time or comparably over a period (Silisilla 2023). Effectiveness of Continuous Assessment Learning Activities (CALA) was determined and informed inferences drawn. Teachers' views on the implementation of were collected as quantitative data through a closed questionnaire, from which the researcher will draw inferences. This method is deemed appropriate as it involves the collection of extensive and cross-sectional data for the purpose of describing and interpreting an existing situation under study. The descriptive survey has the potential to identify, extract and describe people's perceptions using samples and different techniques of data collection and analysis. Qualitative data to solicit deeper understanding of physics teachers' views, experience and interpretation of the physics curriculum will be sought through a structured interview and document analysis guide. Data triangulation is facilitated through the use of a closed questionnaire, interview guide and document analysis to collect the same information.

3.4 Research design

The case study design was adopted in this research. This was the conceptual structure within which research was conducted, providing focus on the objective plan of action. A case study was adopted

since it is an in-depth investigation of one entity carefully defined and characterized by time and place(Coolahan, 2017). Hence, the case study allowed the researcher to understand the participants' behaviours and experiences. The case study further recognized the uniqueness and the dynamic nature of the contexts considered as well as in-depth participant interactions in those unique instances. . Richardson, (2015) call the research design the "glue" that holds together all the elements in a research project. The research design is prepared to ensure that the research process is carried out with maximum efficiency in terms of money, time and effort, whilst bringing out the most beneficial outreach to solicit for adequate and most pertinent data that is in line with the exact purpose of the proposed research.

3.5 Population and Sampling

The population to this study consisted of school teachers in Zimbabwe. Ten (10) teachers teaching Physics in all the 10 schools who offer Physics at their schools were selected to participate in the study. The sample consisted of 10 teachers from Secondary Schools from Mutoko district. These were found suitable because they were classroom teachers during the period when CALA was shortly introduced in schools nationwide. Random sampling was used to select 10 physics teachers from 10 schools in Zimbabwe. Random sampling was deemed convenient to afford participants equal opportunities of being included in the study and to understand the prevailing situation. Cluster sampling was employed to group the high schools into rural and urban centres to ensure that all categories of high schools found in Zimbabwe located in socio-economically diverse communities are represented. Equal number of schools from rural areas and urban centres catering for both Day and Boarding schools would ensure equal representation of all schools from the socioeconomically diverse communities. The representative sample will be selected from 4 urban public schools and 6 rural public schools. The schools were selected on the basis of accessibility, availability and that they had the variable - teaching and learning of Physics. Teachers participated on the basis that they are teaching O' Level Physics at their stations.

3.6 Sampling technique

The sample of this research activity consisted of 20 form 4 students and 10 teachers from secondary schools. The sampling technique that was used involved convenient sampling of the school and purposive sampling to select participants. The convenient sampling was used regarding the proximity of the schools. The schools were easily accessible since their distance from the

researcher's residence was conveniently short. Purposive sampling technique, also called judgmental sampling, is the deliberate choice of a participant due to the qualities the participant possesses (Pentang, 2023). This was used primarily because there was limited number of people that had the expertise in the area being researched. It involved identification and selection of individuals that were proficient and well informed with a phenomenon of interest, the virtual learning environment. When choosing members from the population to participate in the study the researcher relied on his own judgement.

3.7 Data Collection Instruments and Procedure

Research instruments are procedures or devices for systematically collecting data. These are data collecting tools. Also, with a similar view is Farrant (2016) who propounds that instruments are tools that help the researcher gather data from the sample. Therefore, research instruments are tools used to gather information or relevant data about research under study so that the research questions are answered. The researcher, for this study chose to use questionnaires and interviews.

3.7.1 Questionnaires

KoBo Toolbox questionnaire were distributed to learners and teachers in Mutoko District using mobile phones. The researcher chose KoB0 toolbox since it is a free open source tool for mobile data collection, available to all and it allow you to collect data in the field using mobile devices such as phones as well as with paper or computers. It was also adopted in this research because as the schools are highly spaced it was easy to use this instrument than move around through the whole district. Learner express their views on how they view use of virtual laboratories learning and the challenges they face in using it.

a questionnaire has an advantage of gathering a vast amount of information over a short space of time and can reach out to a large number of people as supported by Ranganathan & Caduff (2023) The results of the questionnaire are usually quick and easy to analyse. The major advantage of KoBo Toolbox questionnaires in this research is the fact on anonymity, from respondents to increase as compared to face to face interactions.

Administering a questionnaire is another method of collecting data that will be used in this study, a questionnaire is a data collecting document containing a list of questions which the respondents are expected to answer literally. Furthermore, Rathanang & Caduff (2023) buttresses the point

that a questionnaire is a written list of questions, the questions are presented on a script and the answers to which are recorded by respondents in the given scripts. In a questionnaire the sampled respondents read the questions, interpret what is expected and then write down the answers. In other words, a questionnaire is a document containing questions that participants have to respond to address the sub-problems under study and hand delivered to the respondents.

On the other hand, a KoBo Toolbox questionnaire can bring some disadvantages. That the disadvantage of a questionnaire is that there could be a low return of questionnaire since other respondents might have network problems or might not have mobile devices. Some respondents can delay answering them and end up complaining about internet connectivity and data bundles. To overcome this, the researcher needs to make a follow up on distributed questionnaires by identifying respondents through recording names of participants who received the document

3.7 2 Focus group session

The researcher conducted two focus group sessions involving one session at each secondary school chosen for research. Focus group was found a good way to gather together people from similar backgrounds or experiences to discuss a specific topic of interest.

Focus groups were used to get information on collective views and generating a rich understanding of participants' experiences and beliefs and should be considered as a means to explore unknown territory.

Focus group is comparatively easier to control or conduct and allow the researcher to explore topics and to generate hypotheses. There is enough opportunity to generate data from the group interaction, which concentrates on the topic of the researcher’s interest. There are low costs involved as compared to other methods. The discussion session gives immediate supply of the results in terms of evidence of the meeting of the group. It allows the researcher to increase the size of the sample of the qualitative studies. According to Miller (2020) Focus group discussion provides a diverse set of responses based on interviewee profiles and can yield a richer amount of data. A focus group provides anonymity for many of the participants. It can provide time-saving opportunities and can confirm insights obtained from other methodologies.

The main disadvantage is that data analyses are more difficult to be done they usually demand interviewers who are carefully trained. It takes some considerable effort to assemble the groups. The discussion should be conducted in an atmosphere that facilitates the dialogue. Individuals in a focus group have less speaking time than in interviews and there is no guarantee that all members will participate in a focus group. Hence, some focus group members can dominate the conversation leading to lack of balanced views (Miller, 2020). It can be challenging to prevent bias from the moderator. Moderators can intentionally or unintentionally change the perception of participants because they might not want to disappoint the moderator. Hence, focus surveys might provide false information regarding the outcome of the discussion (Albanesi, 2023).

Questionnaires, interviews, and focus group discussion guides were used to generate data on the participants' perceptions towards the implementation challenges of the CALA in schools in Zimbabwe. The questionnaire had open-ended items to allow participants' free expression of their opinions. A focus group discussion, according to Albanesi (2023), is clearly defined interface discussion of participants. Four focus group discussion sessions, each with twelve (12) participants, were conducted in this study. Thus, three researchers administered the focus group discussion to a total of 48 participants while the other one facilitated the discussion with the other 7 participants, group discussions lasted for about one and quarter hours for each session.

3.7.3 Semi-structured Interviews

This method of interview has features of both structured and unstructured interviews and therefore use both closed and open questions. As a result, it has the advantage of both methods of interview. In order to be consistent with all participants, the interviewer has a set of pre-planned core questions for guidance such that the same areas are covered with each interviewee. As the interview progresses, the interviewee is given opportunity to elaborate or provide more relevant information if he/she opts to do so. This study interviews every participant in using a semi-structured interview approach to appraise the pedagogical design of the Model. The reason of choosing structured interviews is to avoid diverting to issues which are of little concern in answering the research questions, structured interviews are very useful in maintaining course of the interview and asking exactly what is needed by the researcher (Mashuri et al 2022). Furthermore the main advantage of the structured interview is that it provides the collection of complete information with greater understanding. The research will ask questions regarding the responses

so that he understands what the respondents mean with their statements right away. The interview is more personal and individualistic, as compared to questionnaires, allowing us to have higher response rates and real-life issues with in-depth understanding are excavated in their natural setting. It allows for more control over the order and flow of questions. We can introduce necessary changes in the interview schedule based on initial results (which is not possible in the case of a questionnaire study/ survey). If the interview guide does not lead to the answering of any research question it can be tailor made so that it gathers data that us relevant to the research study being under taken.

Data analysis, especially when there is a lot of qualitative data. Interviewing can be tiresome for large numbers of participants.

3.8 Ethical considerations

Participants were not coerced to take part in the study, hence it was voluntary and they were free to withdraw at any time they felt to do so. To protect the identity of participants, pseudonyms were used in the study and this was made known to participants. Information gathered was also treated in utmost confidence so that participants would not be harmed in any way. Since some of the respondents were below the age of 18 years, letters of consent (Appendix A) were given to parents of respondents asking for permission to interview their children.

3.9 Validity and Reliability

The instruments were subjected to for review against the research questions to ensure acceptable validity. Triangulation was adopted for reliability since data triangulation is facilitated through the use of a closed questionnaire, interview guide and document analysis to collect the same information. The use of two different tools (questionnaires and focus group discussion) further ensured the reliability of the data. According to Mudzoka, Long& Machaba (2019) reliability refers to the stability of findings. Reliability was guaranteed by data triangulation. This was achieved through the use of multiple data gathering tools such as the structured questionnaire, interview guide and document analysis. The methods were used to solicit the same information with respect to concepts under investigation and to the convergence of analysed data.

To ensure validity, the research instruments were pilot-tested on six purposively selected physics teachers who complete the questionnaire and on another four teachers who were interviewed

during the November,2023 examination-marking session, as advised by Rangathan & Caduff (2023) who advises that for validity, a research instrument must measure what it is intended to measure. Feedback obtained was used to improve the data gathering instruments prior to use in the field. CALA models were scrutinised to determine the effectiveness of CALA in learning of physics.

3.10 SUMMARY

This chapter looked at the research methodology, the research paradigm, research design, population and sampling as well as the sampling techniques. Data collection instruments were also listed and why the researcher chose to use them by looking at the advantages and the disadvantages of the instrument

CHAPTER 4 DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The chapter focuses on data collected from stakeholders (students, teachers, and parents). The chapter discusses findings on the effectiveness of CALA in the teaching and learning of O level physics. Responses from students' questionnaires, parents' interviews, focus group discussions, teachers' and the learner's interviews were gathered. The chapter also presents recommendations of students, teachers, parents and the school development committee chairpersons before discussing the study.

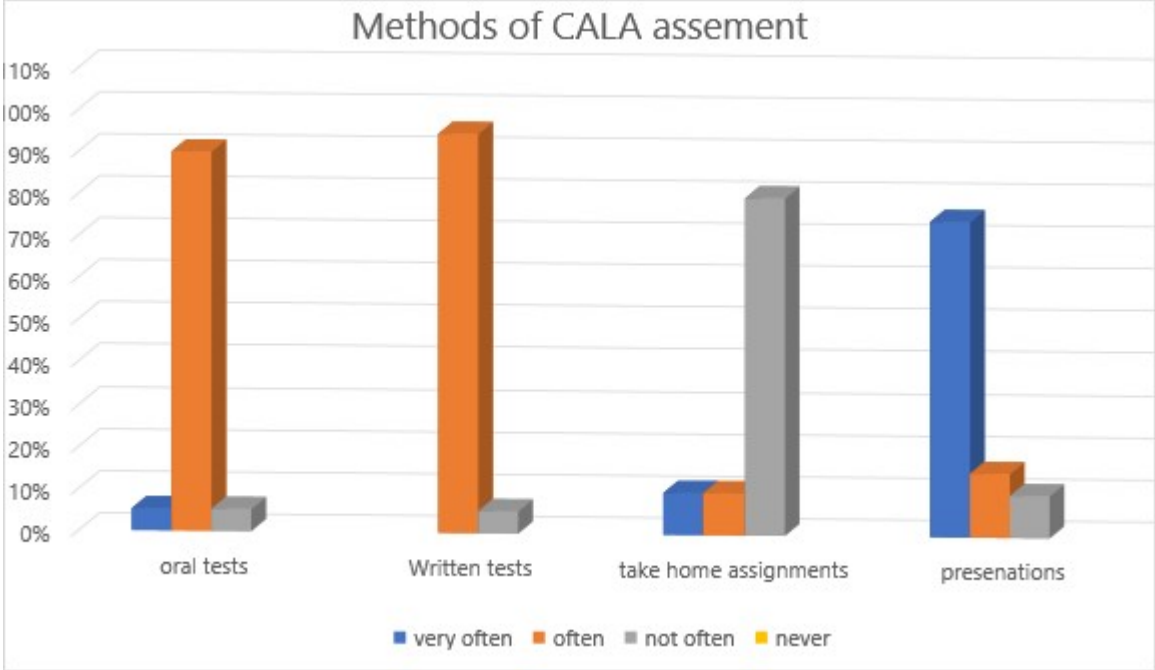
4.2 The impact of CALA on academic performance

Majority of teachers interviewed (88%) mentioned that if they have received the relevant documents such as printed modules, assignment book, instructions, and guidelines to complete the activities pertaining to CALA component and they accepted that continuous assessment methods were at use in class. Most of the teachers believed that the CALA component would have helped them to face final examination more confidently. Majority of the teachers (89%) mentioned that CALA and take-home assignments increased their motivation for self-study than activity-based assignment. All the respondents expressed their views on how far these CALA methods were utilized as shown in Table 4.1;

Table 4.1: Methods of CALA assessment used

	Very often	Often	Not often	Never
Oral tests		90%		
Written tests		95%		
Take home assignments			80%	
Presentations	75%			

Graph 4.1 below



From the graph 4.1 above a greater percentage indicated that they received oral tests, written tests, take home assignments and presentations which as part of Continuous Assessment Learning Activities (CALA) assessment indicating that teachers were playing their role in implementation of CALA. Hence CALA can contribute most to the preparation of final examination by giving learners more time to concentrate on school work therefore enhancing content mastery.

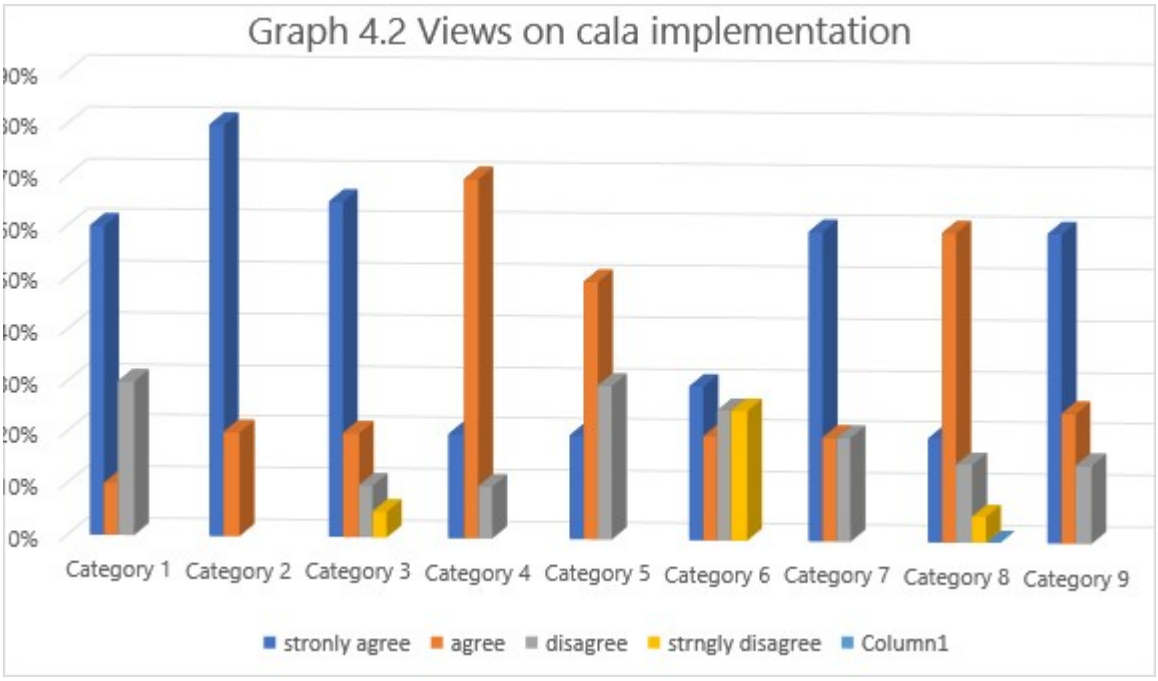
4.3 Views on CALA implementation

Parents, learners and teachers must be involved in the implementation process as they directly influence the success of the CALA. The teachers and the parents should be the Captains driving the initiative hence they should be consulted before the implementation phase. In addition, Planning should be prioritized. Planning is important in every aspect of life and should never be overlooked. According to the questions asked to teachers as to how they perceive CALA there should be enough involvement of key stakeholders on important issues that affect school teacher. The respondents emphasised the following to be done in order to improve the delivery of CALA. Key stakeholders such as teachers and parents should have been informed about the CALA initiative prior introduction to reduce resistance to change and for to be well informed so that there will be uniformity across the country in implementation of the CALA

To enhance the chances of success for CALA, the Ministry of Primary and Secondary Education should go back to the drawing board and properly plan. Parents should also have been notified on time since they are some items including bond paper, flat files, and glue amongst others which they were supposed to purchase since they were a requirement for the initiative. The other notifiable concern is that the CALA initiative should be well budgeted. The Ministry should budget for the initiative so that all events will be well funded. In the absence of adequate funding the idea will fail. There is also need for Prioritization of teacher's welfare. The welfare of teachers should be improved through coming up with convincing packages which motivate them to work extra hard. Teachers should also be adequately trained. There is need for an expanded effort to conduct CALA workshops so that teachers as programme implementers become well acquainted with what is expected of them. Researchers also recommends that there is need for a restructuring of the initiative. The tasks should be reduced from five to one. Most of teachers are failing to complete the ZIMSEC syllabuses due to increased pressure of the Continuous Learning initiative which have affected the students in the process as they will be having a lot of ground to cover. Various views and thoughts on CALA implementation were gathered from stakeholders including teachers and learners as major stakeholders in CALA implementation and their responses are shown as percentage presented in Table 4.2;

Table 4.2 Views on CALA implementation

Questions items	Strongly Agree	Agree	Disagree	strongly Disagree
CALA builds the whole mind of students as they Prepare for their final exams	60%	10%	30%	
CALA Improves teaching and Learning process leading to Improved performance	80%	20%		
CALA helps to identify the weak Students and assist in working on them	65%	20%	10%	5%
Students learn to raise from time to time which increases retention and memorization.	20%	70%	10%	
CALA enables the learners to master the content as given by the teachers	20%	50%	30%	
Learners who perform well in CALA also perform better in final exams	30%	20%	25%	25%
CALA arouses learners' desires for attention and concentration while in class.	60%	20%	20%	
The more the learners go through CALA the more confident and readier they became for the final exam	20%	60%	15%	5%
The gap between the teacher and learners is closed as the teacher gets to know the students as well	60%	25%	15%	



The results of Table and Graph 4.2 above showed that at least 79% of the respondents were of the view that CALA was an effective assessment tool in the teaching and learning of physics if properly implemented. Majority of learners and teachers have appreciated the importance of CALA, as they agreed that CALA was able to raise the level of retention and memorisation of learners.

4.4 Challenges faced in implementation of CALA.

Responses from the semi-structured interviews and the focus group discussions were read several times and data was categorized into themes developed from research questions. One respondent had this to comment on the implementation challenges: “It was difficult to cover the syllabus; most of the learners would leave their classrooms to solicit information for projects that affected the smooth flow of lesson delivery. Umm continuous assessment was just bad”. On the questionnaire responses, many participants were of the view that the task was too many for the already burdened parents. Tasks were too many for learners and teachers because of the high teacher-pupil ratios in some schools. In some cases, a teacher taking a class of fifty-five learners would have to supervise all these learners. Added on to that, students had no background knowledge on these tasks, so they tended to copy from friends, hence defeating the purpose of the exercise.

4.4.1 Challenges faced by teachers in Implementing CALA

Another respondent had this to comment on the implementation challenges: Teachers were not prepared to supervise the Continuous Assessment tasks because they felt that it was something that was forced down on them by the Ministry [Primary and Secondary Education] without proper consultations. Facilitators of workshops had no answers to some of the questions raised by the teachers. The questionnaire responses indicated that the majority of the participants were of the same view that teachers were not prepared to supervise the Continuous Assessment in schools. The following were excerpts from participants: "Teachers wanted to be retrained to supervise these assessment tasks and they were too many hence labour intensive" recipients and this created pandemonium among teachers. To add on most teachers complained of not having adequate knowledge on how to create and moderate the CALAs as there was no adequate information during the half-backed workshops. They also raised challenges in meeting syllabus coverage challenges as some time was consumed by CA activities.

4.4.2 Challenges faced by Learners in of CALAs

The majority of participants indicated that tasks were too many both for the Primary and the Secondary schools. The focus group discussion had the following comments from participants: The tasks were too many for the learners and teachers. Learners at secondary level were taking at least eleven learning areas or subjects and each learning area had 5 tasks or projects. This extra load came down heavy to the lowly paid Zimbabwean teacher and coupled with shortage of resources, among other on the questionnaire responses, many participants were of the view that the task was too many for the already burdened teacher. Tasks were too many for learners because of the high teacher-pupil ratios in some schools. A teacher taking a class of fifty-five learners would have to supervise all these learners. Added on to that, students had no background knowledge on these tasks, so they tended to copy from friends, hence defeating the purpose of the exercise challenges.

Furthermore, it was established that: The number of tasks was unbelievably high, making it difficult for pupils to cope. The tasks were introduced and no reduction was done on the number of subjects done by pupils and this created a lot of problems for teaching and learning in schools. There was chaos in schools due to these tasks. The higher number tasks also reduced the time for

learners to complete other tasks and affected their study time as some time was used to find materials and doing their CA activities

CHAPTER 5 CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the research's findings in relation to the objectives that were spelt out. It brings out recommendations and draw a conclusion from the findings of the study. These

recommendations will be aimed at use of continuous assessment learning areas in the teaching and learning of ordinary level physics in ZIMBABWE: a case of secondary school in Mutoko district.

5.2 Impact of CALA on the academic performance in O' level Physics

The study discovered that CALA had a positive Impact on the performance of learners. Most of the teachers believed that the CA component help in confidence boosting and removing anxiety during their final examinations. Most of the teachers (89%) agreed that CALA and take-home assignments increased their learners' motivation for self-study than activity-based assignment. The learners generally viewed CALA as a good way for them to add their marks to the final mark of their exams. Parents recommended that CALA must be particular to one area. It was revealed that CALA was helping the learners in exposing their gifts in as far as research work was concerned. Generally, the study found that CALA made a welcome difference in the learning and teaching of physics.

5.3 Ways of improving CALA delivery

The research showed that stakeholders are a major contributor in the success story of CALA implementation. The respondents emphasised on the following to be done in order to improve the delivery of CALA and that they were not involved in planning and designing of the competence-based curriculum CALA. Planning is important in every aspect of life and should never be overlooked as failing to plan is planning to fail. Therefore, the is need to prioritise planning. To increase the chances of success for CALA, the Ministry of Primary and Secondary Education should go back to the drafting board and properly plan. Parents should also have been notified on time since they are some stationery items including bond paper, flat, files, and glue amongst others which they were supposed to purchase since they are a requirement for the initiative. In addition, it recommended that there be consultations about the CALA initiative prior introduction to reduce resistance to change. Parents and teachers should be involved in the implementation process as they directly influence the success of the development. The teachers and the parents should be the drivers of the initiative hence they should be also consulted before the implementation phase. The other observation is that the CALA initiative should be well budgeted. The Ministry should budget for the initiative so that all events will be well funded. In the absence of adequate funding the idea will fail. There is also needs for putting the welfare of teachers. The welfare of teachers needs to

be improved so that they work to the best of their abilities as they will be motivated. This can be done by providing them with some sort of packages.

5.4 Challenges faced in the implementation of CALA.

The research identified that there were some challenges in the implementation of CALA in schools in Motoko district. From one of the respondents it was observed that some of the learning time was consumed due to the disturbances in the form of movements out of class when learners go out in search of materials. The smooth running of lessons is disturbed once learners embark on their CALAs. From the questionnaire responses it was noted that the tasks were too many for the learners and teachers who were already burdened by long syllabi and high teacher pupil ratio. A teacher taking a class of sixty learners would have to supervise all these learners. Added on to that, students had no background knowledge on these tasks, so they tended to copy from friends, hence defeating the purpose of the exercise.

5.4.1 Challenges faced by teachers in Implementing CALA

The research found out that teachers were less prepared for the application of CALA as they had no enough knowledge of the CALA. It was also noted that the teachers were not well motivated to supervise the CALA as they felt that it was something that was imposed down on them by the ministry without proper consultations for example teacher taking a class of sixty learners would have to supervise all these learners. In addition to that, with students having no background knowledge to the CALA, they would copy from others, then the initiative will not save its purpose

5.4.2 Challenges faced by learners in the writing of CALAs

The research noted that learners were overwhelmed by work. They were finding it hard to strike a balance between their daily excises(work) and the CALA due to lack of time as CALA are outside the allocated learning time. From focus group discussion, participants had the following to say, the tasks were too many for the learners and teachers. It was noted that at secondary level students were taking at least nine subjects and each learning area had five tasks to do. This extra load weighed heavily on rural learners who sometimes have no lighting for them to work from home. To add on to that, there was the issue of teacher pupil ratio which was too high in some schools where a teacher having sixty learners in class have to supervise them all. It is recommended that the number of CALAs be reduced to at least one per learning area

5.5 Conclusions and Recommendations

From the findings of this study is that teachers appreciate the rational of CALA in Physics teaching in Zimbabwe and that they have their positions on pros and cons. The 10 Physics teachers who took part in this study revealed that they regular assess their learners on practical work skills during practical work in their school, though they mainly relied on submitted practical work report. The way in which of CALA is being assessed does not promote students to develop a variety of practical work skills of 'O' level physics students from the views of teachers who participated in the study. The teachers who participated in the study also found out that there are some corrupt and unprofessional teachers who ask for a fee to mark the CALA or award a higher mark. There is also the fact that the CALA assessment was too subjective to accurately assign students grades during assessment sessions. To add on to that, there is a possibility of cheating by students whereby lazy pupils just copy the work of others and submit. This input from teachers raises concerns that cheating might actually be happening presently.

The respondents were generally of the view that it is imperative fuse practical work and CALA when assessing learners' practical work skills. The Physics teachers also opined that there. The Physics teachers were of the opinion that the importance of Teachers must not be overemphasised as they are the keys to the success or failure of the initiative Also ZIMSEC should come up with a common achievement standard for CALA moderation at national level. Teacher should be given CALA components at national level so that a fair and uniform assessment measure is implemented all over the country.

5.6 Conclusion

The study was able to address all the research questions well. The CALA usage in teaching and learning has ignited interest in many stakeholders. From the research findings it was noted that CALA was a rational approach that sought to capacitate learners with life skills. It also invoked interest to learn as well as improve the teacher learner's relationship in the school. However, it was also shown that (MOPSE) did not introduce the CALA initiative well. There was no proper training and lack of resources on the part of teachers, while learners were failing to balance their

school and CALA. It is therefore recommended that, the number of CALAs required is too high hence the need to reduce it to at least one CALA per leaning area. And that the Government schedules some in service training in order to capacitate the teacher with adequate skills to effectively use CALA in teaching Physics.

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APPENDIX A

Consent form

My name is Sabata Simbarashe A. I am a second-year Physics student at BUSE, my registration number is B438516. I am carrying out a research entitled Effectiveness of continuous assessment learning areas in the teaching and learning of ordinary level physics in Zimbabwe: A case of secondary schools in Mutoko district

This form serves to notify that the information you disclose will be kept confidential and will not be used for any other purpose except for this academic research.

Participant's details

Name…….

Surname…….

Sex……

Address…….

I voluntarily participate in this research study

Signature…….

Researcher's signature…….

Date……. Month……

Year……

Parent's details

Name **…….**

Surname ……

Sex ……

Address ……..

I voluntarily allow my child to participate in this research study

Parent's signature …….

Researcher's signature …….

Date …….. Month …….

Year ……

APPENDIX B

Questionnaire for Teachers

Kindly tick the most appropriate options to the questions

1. How do you consistently assess your learners in the Classroom'?

A. Tests

B. Activity based assignments

C. Homework

D. Take home assignments

2. How Often do you carry out the following as assessment?

Strategies	Very often	Often	Not	Never
Oral tests				
Written tests				
Take home assignments				
presentations				

3. When do you carry out the following strategies (tick the most Appropriate)?

Period	Oral tests	Written tests	Assignment take home	Presentation
Daily				
Weekly				
Fortnightly				
Monthly				
Half-termly				
Termly				

Section C

Continuous assessment strategies and student's performance.

Kindly tick the most appropriate

1. How does CALA relate to students Performance in final exams?

Questions items	Strongly Agree	Agree	Disagree	Strongly Disagree
CALA builds the whole mind of students as they Prepare for their final exams				
CALA Improves teaching and Learning process leading to Improved performance				
CALA helps to identify the weak Students and assist in working on them				
Students learn to raise from time to time which increases retention and memorization.				

CALA enables the learners to master the content as given by the teachers				
Learners who perform well in CALA also perform also perform better in final exams				
CALA arouses learners' desires for attention and concentration while in class.				
The more the learners go through CALA the more confident and readier they became for the final exam				
The gap between the teacher and learners is closed as the teacher gets to know the students as well				

APPENDIX C

Learners questionnaire

Kindly tick appropriately

1. **How do your teachers assess your work?**

Strategies	Very often	Often	Not often	Never
Oral tests				
Written tests				
Take home assignments				
presentations				

2. What do your teachers use most to assess achievement?

A. Tests

B. projects

C. exercises

D. home assignments

3. When do your teachers carryout the following strategies (tick the most Appropriate).

Period	Oral tests	Written tests	Assignment take home	Presentation
Daily				
Weekly				
Fortnightly				
Monthly				
Half-termly				
Termly				

Section c

CALA strategies and learners Performances

1. How does CALA relate to learner's performance in the final exams?

Questions items	Strongly Agree	Agree	Disagree	Strongly Disagree
CALA builds the whole mind of students as they Prepare for their final exams				
CALA Improves teaching and Learning process leading to Improved performance				
CALA helps to identify the weak Students and assist in working on them				
Students learn to raise from time to time which increases retention and memorization.				
CALA enables the learners to master the content as given by the teachers				

Learners who perform well in CALA also perform also perform better in final exams				
CALA arouses learners' desires for attention and concentration while in class.				
The more the learners go through CALA the more confident and readier they became for the final exam				
The gap between the teacher and learners is closed as the teacher gets to know the students as well				

APPENDIX D

Interview for students

Section A Demographic Data

1. Sex: Male Female

2. Age

3. School attended

4. Form

5. subject Specialization

Section B Impact of CALA on academic achievement

6. Has CALA improved your grades in your exams. Yes No

7. Do you understand the Purpose of CALA

8. How many of your peers do CALAs in class?

9. What are the ages for those in school?

Section C learner Perceptions towards CALA

10. Do you think CALAs are Necessary in your studies?

11. How Long does it take you to complete a CALA

12. Did you meet the CALA submission deadline.

13. How did your teacher assist you in doing your CALA

14. Who pays your school fees?

Section D Challenges Faced by learners in doing CALAs

15. Which CALA assessment methods did you have problems with.

16. How affordable are the materials required for your projects.

17. Is the time to complete the CALAs adequate? Yes/ No (tick)

18. Is CALA improving your interaction with your teacher?

Section E Recommendations

19. What do you think should be done for CALA use to be improved in the Learning and teaching of Physics in Secondary schools.