



DETERMINING THE RELATIONSHIP BETWEEN HEAD TEACHERS' SUPERVISION AND COMPETENCY-BASED ASSESSMENT IMPLEMENTATION IN SPECIAL PUBLIC PRIMARY SCHOOLS IN KISUMU CENTRAL SUB-COUNTY

Miruka Ochieng Wilson¹ⁱ,

Nelly Otube²

¹Master's Student,

School of Education,

Department of Early Childhood and Special Needs Education,

Kenyatta University,

Nairobi, Kenya

²Lecturer, Dr.,

Department of Early Childhood and Special Needs Education,

Kenyatta University,

Nairobi, Kenya

Abstract:

This study aimed to determine the relationship between head teachers' supervision and competency-based assessment for CBC implementation in special Public Primary Schools (PPSs) in Kisumu Central Sub-County. The study was guided by a mixed-methods descriptive survey approach. Two head teachers and seventy teachers from the two chosen special education primary schools in Kisumu Central Sub-County, Joyland Special School and Lutheran Special School, made up the population. Since both groups are directly involved in curriculum implementation and instructional supervision procedures, purposeful sampling was utilized to choose all 70 teachers and the two head teachers in charge of the special needs primary schools. Questionnaires and interview schedules were used in the data collection process. Both qualitative and quantitative techniques were used in data analysis. Tables, figures, and text were used to display the results. To determine the direction and intensity of the association between supervision and each aspect of curriculum implementation, correlation analysis was used. The results showed statistically significant associations between head teachers' supervision and all measures of instructional materials creation. Stronger associations were found between supervision and creativity ($r = .644$, $p < 0.01$) and between supervision and appropriate material use ($r = .589$, $p < 0.01$). Supervision and rubric development have the largest correlation ($r = .672$), indicating that supervision is especially crucial for developing technical assessment abilities that call for mentoring and guiding. Technical competency

ⁱ Correspondence: email ochiengwilson2@gmail.com

gaps, however, were found in areas like data analysis and ICT integration in assessment, indicating uneven teacher preparation and the need for ongoing professional assistance. Qualitative results further supported the idea that although evaluation procedures were getting better, they were still evolving and uneven among schools. The study comes to the conclusion that a major factor in the advancement of competency-based assessment procedures was the supervision of head teachers. But the results also showed that teacher proficiency levels differed greatly, especially when it came to data-driven evaluation and ICT integration. The study recommended that a consistent structure for instructional monitoring should be established by the Ministry of Education in order to implement CBC in special public elementary schools. To encourage uniformity in curriculum delivery across schools, the framework should include precise criteria and monitoring tools for supervision of work plans, lesson preparation, classroom instruction, instructional materials, and competency-based assessment. The creation and distribution of context-specific CBC support materials for special PPSs should be strengthened by the Kenya Institute of Curriculum Development. These materials should include teacher support materials, assessment guides, and instructional resources that are tailored to the needs of students with disabilities and meet CBC requirements.

Keywords: competency-based assessment, head teacher's supervisory practices, head teachers' supervision, implementation and special public primary schools

1. Introduction

To give students the practical skills, values, and competencies required for the workforce and society of the twenty-first century, the worldwide education industry has moved more and more toward competency-based approaches (Kayyali & Noori, 2026). Studies conducted worldwide have demonstrated that school leadership has a major impact on the results of curriculum implementation. Competency-based education was implemented in the US to improve diversity, flexibility, and learner mastery (Patrick, 2021). Instead of concentrating just on content mastery, the Competency-Based Curriculum (CBC) stresses the acquisition and application of knowledge, skills, values, and attitudes in real-life settings (Muengele *et al.*, 2019). Learner-centred pedagogies, critical thinking, creativity, teamwork, and problem-solving abilities, all crucial for sustainable development and lifelong learning, are fostered by competency-based education (Carney, 2022). As a result, other nations have implemented CBC reforms to raise the standard and applicability of education, including Finland, Rwanda, Mexico, Tanzania, and Kenya. In order to apply CBC, educators must develop work plans and lesson plans that align with competencies, develop and utilize appropriate teaching materials, conduct continuous competency-based assessments, and use collaborative and student-centred pedagogical approaches. The Kenya Institute of Curriculum Development (KICD) requires teachers to provide feedback that promotes skill

development, maintain assessment records, and adapt instruction to students' skills and educational needs. The requirements show that curricular policy and the effectiveness of teaching strategies in educational institutions are both necessary for CBC to be implemented successfully.

Effective instructional supervision is essential to the successful implementation of curricula in educational institutions, especially in competency-based learning contexts. Monitoring teaching and learning procedures, offering professional support to teachers, giving feedback, and making sure curriculum objectives are met are all part of instructional supervision (Kayirebe, 2025). By assisting teachers with lesson planning, instructional resource development, assessment procedures, and classroom management, head teachers play a crucial role in coordinating curriculum implementation. According to research, schools with efficient supervision procedures frequently see increases in student success, teacher effectiveness, and instructional delivery (Hallinger *et al.*, 2025). Thus, regular classroom observation, professional record checks, teacher mentoring and coaching, professional development activities, learner progress tracking, and instructional feedback are all necessary for instructional oversight. Teachers may find it challenging to interpret curriculum requirements, create appropriate learning experiences, and effectively assess students in situations where these supervisory functions are lacking. However, the implementation of CBC poses unique challenges in special education settings because of the varied learning needs of students with disabilities.

To successfully adopt CBC, special primary schools need tailored learning resources, collaborative teaching practices, diversified assessment strategies, and adaptive teaching methods (Kubai, 2023). This gives head teachers more authority to oversee and assist instructors working with students who have special needs. Students at special schools may have a variety of disabilities, such as hearing, vision, physical, intellectual, or multiple impairments, necessitating the use of specific teaching methods, assistive technology, customized learning resources, and individualized assistance. As a result, educators are expected to modify CBC standards to fit the unique skills of their students, employ alternate forms of communication like braille or sign language, and implement adaptable evaluation techniques that capture students' functional capabilities. Because of these requirements, curriculum implementation in special schools is more complicated than in conventional primary schools, and head teachers are more accountable for providing professional support and specialized supervision. Despite this fact, special education institutions have received little attention in numerous studies on instructional oversight and CBC implementation, which have mostly concentrated on ordinary primary schools.

With the goal of fostering each learner's potential through competency development and hands-on learning experiences, CBC was formally implemented in Kenya in 2017 to replace the 8-4-4 method (Fomiškina *et al.*, 2020). The curriculum mandates that educators use collaborative teaching methods, varied instruction, learner-

centred pedagogies, and formative assessments. Therefore, the ability of head teachers to supervise, monitor, and assist teachers during the teaching process is crucial to the successful implementation of CBC (Sifuna & Obonyo, 2019). Research conducted in Kenya has demonstrated that effective curriculum implementation is positively impacted by head teachers who routinely oversee lesson design, classroom instruction, and professional development (Kitiyo, 2025). However, ongoing implementation issues have been documented by national reports and empirical studies. These issues include a lack of instructional resources, a lack of teacher preparation for CBC, inconsistent assessment procedures, and a lack of instructional support, especially in Public Primary Schools (PPSs). Research from Kenya shows that many teachers still struggle with creating learner-centred instructional materials, creating competency-based work plans, and carrying out ongoing competency-based assessments.

The supervisory function of headteachers becomes even more important in special education primary schools since teachers must meet a variety of learning needs and disabilities. Effective supervision in special schools, according to Chepkilot (2024), involves assisting instructors in creating adaptive teaching materials, carrying out competency-based evaluations, and putting individualized teaching methodologies into practice. Additionally, better use of CBC concepts like learner-centred assessment and tailored instruction has been linked to inclusive leadership practices that offer teachers individualized professional support (Anyango *et al.*, 2024). The implementation of CBC in Kenyan special education primary schools is still hampered by a number of issues, despite the acknowledged significance of instructional monitoring. These issues include overcrowded classrooms, insufficient funding for specialized learning resources, inadequate professional assistance, insufficient teacher training on special needs education, and inadequate instructional materials (Waruingi *et al.*, 2022). Additionally, there hasn't been any empirical research on how head teachers' supervision affects curriculum delivery in special primary schools using CBC, despite earlier studies looking at head teachers' supervisory techniques in mainstream schools. However, ongoing implementation issues have been documented by national reports and empirical studies. These issues include a lack of instructional resources, a lack of teacher preparation for CBC, inconsistent assessment procedures, and a lack of instructional support, especially in PPSs.

1.2 Statement of the Problem

Kenya has moved from content-based instruction to learner-centred education through the CBC. For primary school CBC to work well, there should be good instructional supervision, the right instructional resources, ongoing competency-based evaluation, and cooperative teaching strategies that help all students learn the skills they need. Evidence shows that CBC implementation in Kenyan primary schools is unequal, despite the Ministry of Education and affiliated organizations' policy efforts and training. Poor instructional supervision, underprepared teachers for competency-based assessment,

and limited instructional resources affect curriculum delivery. Reports on CBC implementation in Kenya show that many instructors struggle with learner-centred materials, competency-based work plans, ongoing assessments, and individualized instruction. Studies of public elementary schools found inadequate instructional support, inconsistent professional record supervision, and insufficient classroom process inspection by school administrators. Kisumu County's special PPSs struggle to achieve CBC standards for hearing, vision, intellectual, and multiple disability children. They also lack special education resources and teacher support. Informal reports from education officials and school administrators have emphasized issues in designing competency-based lesson plans, assessing learners, and using collaborative teaching practices in special schools. Researchers have not carefully examined how head teacher supervision influences these concerns in Kisumu Central Sub-County.

It is unclear how head teachers' supervision techniques affect CBC implementation, such as collaborative teaching methods in special education, competency-based assessment, instructional material production, and job preparation schemes. There is limited empirical data from special education primary schools in Kisumu Central Sub-County; hence, most studies focus on conventional primary schools. Thus, there is insufficient context-specific evidence to assess how head teacher supervision influences curriculum delivery in CBC-implementing special public elementary schools. The majority of earlier studies employed descriptive methods; therefore, little was known about how supervisory procedures affected curriculum implementation. Head teachers' supervision approaches have received little systems theory attention for successful CBC implementation in special education. Based on these findings, this study examined how head teacher supervision affects curriculum delivery in Kisumu Central Sub-County's special PPSs. Work preparation, instructional material development, competency-based assessment, and collaborative teaching for CBC implementation were its main focus.

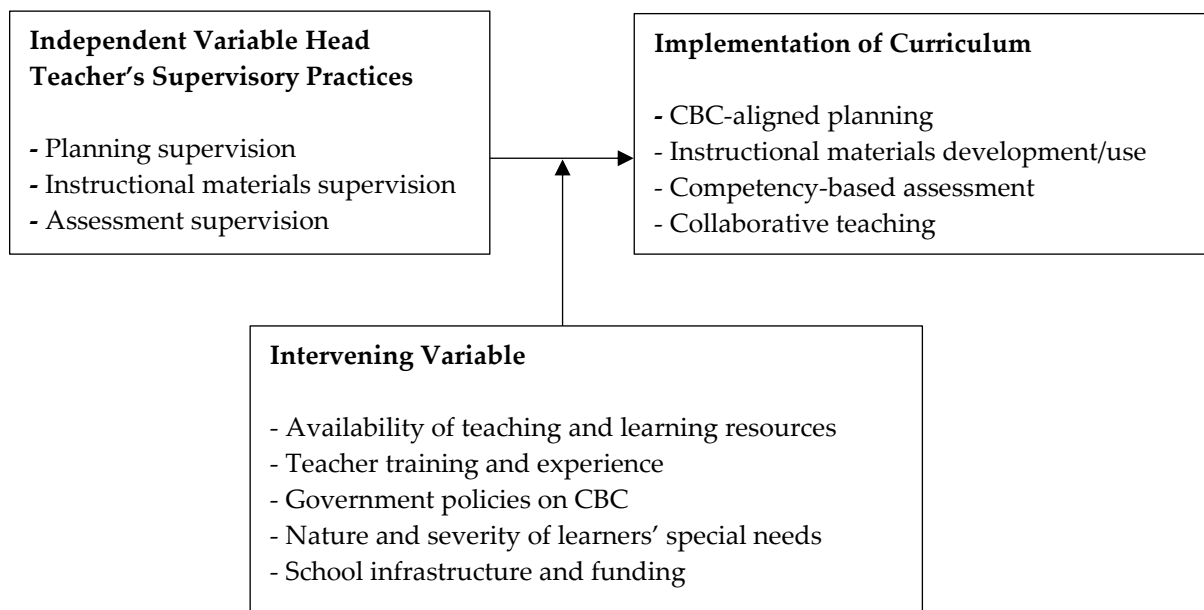
1.2 Purpose of the Study

The purpose of this study was to determine the relationship between head teachers' supervision and competency-based assessment for CBC implementation in special PPSs in Kisumu Central Sub-County.

1.3 Conceptual Framework

Figure 1 is an illustrative diagram depicting the nature of associations between the variables or predictors. The framework illustrates that head teachers' supervisory practices (independent variables) directly influence the CBC implementation (dependent variables).

Figure 1.1: Conceptual Framework



2. Literature Review

2.1 Theoretical Framework

The systems theory of educational administration served as the primary inspiration for this work, which was further supported by instructional leadership theory. Together, the two theories provide a thorough explanation of how curriculum delivery in special PPSs utilizing the Competency-Based Curriculum (CBC) is impacted by head teachers' supervisory strategies. The systems theory of educational management was developed by Ludwig von Bertalanffy in 1968. It views an organization as a system of interconnected and interdependent parts that cooperate to accomplish shared objectives. In educational administration, the concept has been widely applied to explain how interactions between school administrators, teachers, students, curriculum, instructional resources, and regulations affect school effectiveness (Bush, 2020). In a school setting, no component operates independently, and effective curriculum implementation necessitates constant collaboration, communication, monitoring, feedback, and teamwork among those engaged (Kast & Rosenzweig, 1972). Effective curriculum execution requires coordination, communication, feedback, and cooperation among all parties involved in the educational process because a change in one component of a school system impacts the operation of the other components. As a result, any flaws in one area of the educational system inevitably have an impact on how well the entire organization operates.

According to systems theory, successful implementation of the competency-based curriculum in special PPSs depends on coordinated interactions between head teachers, teachers, students with special needs, parents, and support staff. In addition to overseeing the creation of instructional materials, supporting competency-based

assessment, and encouraging collaborative teaching techniques, head teachers play a major coordinating role in the creation of the work plan. Head teachers improve curriculum delivery by fostering effective interaction between the various components of the school system in their supervisory roles. In order to help head teachers identify educational gaps, provide professional support, and enhance teaching and learning processes, the theory also emphasizes continuous feedback mechanisms through standard classroom observations, professional document reviews, learner assessments, and teacher consultations (Bush, 2020). Because it describes curriculum delivery as the result of the joint operation of leadership, instructors, resources, curriculum requirements, assessment procedures, and the school environment rather than as the result of a single factor, the theory is especially pertinent to this study.

The instructional leadership theory, first developed by Hallinger and Murphy (1985), which emphasizes the essential responsibility of school administrators to enhance teaching and learning through efficient instructional supervision, also served as a source of information for the study. According to the notion, successful instructional administrators are individuals who establish the school's instructional mission, manage curriculum and instruction, oversee classroom instruction, track student progress, plan professional development, and create an atmosphere that supports effective teaching. Unlike administrative leadership approaches, which concentrate more on school administration, instructional leadership theory centres school leadership around instructional improvement. In this study, the two theories were applied in a complementary way. While Instructional Leadership Theory clarified the particular supervisory procedures by which head teachers impact instructional practices, teacher support, monitoring, feedback, professional development, and instructional improvement, Systems Theory explained how school leadership, teachers, instructional resources, curriculum, assessment, and the school environment shape curriculum delivery. The supervisory procedures of head teachers, such as overseeing the creation of instructional materials, overseeing the production of work plans, overseeing competency-based assessments, and overseeing interactive teaching methods, were the independent variable.

2.2 Relationship between Headteacher's Supervision of CBC and its Implementation

Through ongoing, learner-centred methods, assessment in the CBC aims to gauge students' acquisition of competencies, skills, attitudes, and values. CBC places more emphasis on formative assessment, authentic evaluation, and targeted student progress tracking than standard examination-oriented systems. Because competency-based assessment in special education settings necessitates adaptability to the varied requirements of learners, head teachers' supervisory duties are crucial in ensuring that instructors successfully conduct assessment procedures and make use of the proper evaluation instruments. Formative assessment and ongoing supervision enhance competency development and learner progress tracking, according to research by

Heritage (2013). According to the report, instructional leaders should assist instructors in creating learner-centred evaluation strategies, portfolios, and assessment rubrics. However, the study did not concentrate on supervision issues in special schools with limited resources and was primarily theoretical.

According to Njeng'ere and Ji (2017), competency-based assessment necessitates that educators use criterion-referenced methods that continuously track students' development and acquisition of competencies. In order to evaluate students within CBC frameworks, the study highlighted the use of assessment rubrics, portfolios, observations, and hands-on activities. Nevertheless, the study did not critically examine the supervisory function of head teachers in assisting teachers in successfully implementing these assessment procedures, instead concentrating mostly on general curriculum assessment practices. Furthermore, the study did not address the particular assessment difficulties encountered in special education settings, where students need specialized and varied methods of evaluation.

Okeyo *et al.* (2024) investigated the difficulties head teachers in Uganda encountered when overseeing the implementation of CBC. The results showed that competency-based assessment processes were adversely influenced by inadequate supervisory abilities, inadequate training, and a lack of structured assessment support. Although the study identified significant monitoring issues, it did not target special education institutions and instead concentrated on PPSs in general. The study focused mostly on mainstream PPSs and did not particularly examine how head teachers oversee competency-based assessment in special education situations, although it acknowledged the difficulties associated with supervision. Additionally, the study focused on administrative limitations but offered little insight into how supervision directly affects instructors' methods of assessment. The majority of research is descriptive and concentrates on mainstream education settings, despite the fact that it acknowledges the significance of formative evaluation, teacher assistance, assessment, and standard supervision in CBC implementation. The supervision of competency-based assessment by head teachers in special PPSs, where students need modified methods of instruction and evaluation, has received little empirical attention. Furthermore, in the context of Kenyan special education, little research has looked at the connection between supervisory practices and teachers' use of CBC assessment techniques. Therefore, by examining the impact of head teachers' supervision on competency-based assessment for CBC implementation in special PPSs in Kisumu Central Sub-County, the current study aimed to close this empirical and contextual gap.

3. Methods

3.1 Study Locale

The study was carried out in Kisumu County's Kisumu Central Sub-County. One of the administrative divisions of Kisumu County, Kenya, is Kisumu Central Sub-County. It is

the smallest sub-county in terms of land area, spanning about 32.7 square kilometres. The economy of the sub-county is varied and includes industries like manufacturing, services, trade, and education. Kisumu Central is home to Kisumu City, the county capital and a major urban hub in western Kenya. Commerce, education, and services are just a few of the economic activities that this metropolitan environment supports. Kisumu Central Sub-County, one of the sub-counties in Kenya with two significant special needs primary schools that are essential hubs for inclusive education delivery, was chosen as the study's focus due to its distinctive educational landscape. The urban setting of the sub-county offers unique opportunities and challenges for curriculum implementation and educational management. In order to identify successful practices and areas in need of development, the study aims to provide insights into how head teachers' supervision tactics affect CBC implementation in special education settings.

3.2 Study Design

The study was conducted using a mixed-methods descriptive survey methodology, which has a number of benefits. First of all, it allows the researcher to take a thorough picture of the supervisory techniques used by head teachers and how these techniques affect the implementation of CBC. This is essential for assessing the efficacy of present supervision procedures and pinpointing potential improvement areas. Additionally, descriptive surveys make it easier to gather information from a large sample, guaranteeing that the results are typical of the community being studied (Creswell, 2014). This representativeness improves the results' generalizability, enabling more precise conclusions on the relationship between the supervisory methods of head teachers and the application of CBC in different special education primary schools in the area.

3.3 Study Population, Sampling Techniques and Sample Size

Two head teachers and seventy teachers from the two chosen special education primary schools in Kisumu Central Sub-County, Joyland Special School and Lutheran Special School, made up the study's population. Because the target population included people who were actively involved in the implementation and oversight of the curriculum, it was deemed appropriate. These respondents have the pertinent experience and knowledge needed to evaluate how head teachers' supervisory tactics affect the application of CBC in special education settings. Because the target population was small and controllable, census sampling was employed to include all 70 instructors and the two head teachers overseeing the special needs elementary schools. By including every member of the population, sampling error was removed, and all pertinent viewpoints on instructional supervision and curriculum implementation were recorded. Because all head teachers and teachers directly involved in the implementation of the CBC and instructional monitoring in the chosen special primary schools took part in the study, the results were more thorough and representative. As a result, 72 responders made up the entire sample size. However, given the relatively small number of schools (two

institutions), the study acknowledges that generalization to all special primary schools in Kenya should be done cautiously, as findings are context-specific to Kisumu Central Sub-County.

3.4 Research instruments

In this study, questionnaires and interview schedules were used as data-gathering instruments. A 5-point Likert scale was used to measure the degree of agreement on supervisory practices and curriculum implementation in the four main sections of the questionnaires that were used to collect primary quantitative data from teachers. Participants' demographic data were gathered in Section A. Section B focused on head teachers' supervision of CBC implementation in general instructional processes. Section C addressed supervision of lesson planning and scheme of work preparation. Section D examined the supervision of instructional materials development. Section E assessed supervision of competency-based assessment practices. The supervision of competency-based assessment procedures was evaluated in Section E. The supervision of collaborative teaching methods in CBC implementation was the main topic of Section F. The Interview Schedule for Headteachers had two sections in this section. Respondent demographics, such as gender, age group, teaching experience, and administrative level, were recorded in Section A. The semi-structured interview questions in Section B were intended to delve further into the supervisory responsibilities of head teachers. Flexibility was made possible while maintaining uniformity in data gathering among respondents due to the semi-structured style

3.5 Piloting

Since there were only two special PPSs in the sub-county where the study was carried out, pilot testing of the pre-testing instruments was done in one of the nearby sub-counties' special PPSs. Before giving the data collection tool to the respondents during the real data collection exercise, a pilot study was conducted to determine its applicability and dependability.

3.6 Validity and Reliability of the Research Tools

To make sure that the instruments sufficiently covered every variable under consideration, the study used content validity. University supervisors and experts in education research examined the research instruments, assessing their applicability, clarity, and congruence with the study's goals. Their suggestions were implemented to enhance the instruments' content validity by improving the questionnaire items' coverage, relevance, and language. The test-retest method was used to verify the research tools' dependability. The approach was applied to the educators' survey, which was the main quantitative instrument employed in the study. During the pilot phase, the same participants were given the survey, which was then provided again two weeks later. The reliability coefficient for the teachers' questionnaire was 0.78 after the two score sets were

correlated using the Pearson Product Moment Correlation Coefficient (r). Kothari (2011) asserts that a value of 0.70 or higher signifies satisfactory stability over time. The resulting coefficient indicated that the questionnaire was dependable for the primary research.

Alongside test-retest reliability, internal consistency reliability was evaluated due to the questionnaire comprising many Likert-scale items that assess distinct constructs pertaining to head teachers' supervision and curriculum implementation. Cronbach's alpha coefficients were calculated for the primary constructs, including oversight of scheme of work preparation, oversight of instructional materials development, oversight of competency-based assessment, and oversight of collaborative teaching methodologies, with the coefficients exceeding the acceptable limit of 0.70. This signified that the elements within each construct exhibited internal consistency and assessed the same fundamental concept. The interview timetable for head teachers was not evaluated for statistical reliability, as it produced qualitative data. Conversely, its reliability was improved via piloting, supervisory evaluation, and the implementation of a semi-structured framework that maintained uniformity in questions among participants while permitting adaptability in exploring comprehensive answers.

3.7 Data Collection Procedures

Research instruments were handled by the researcher in organized phases. Teachers in Grades 4 through 6 at each school received questionnaires. Additionally, the two head teachers participated in in-person, semi-structured interviews at their workstations. To guarantee a high response rate and comprehensive data, the researcher personally gathered completed surveys. Observation checklists were also used to validate the presence or absence of key instructional and supervisory practices within classrooms and school environments. All data collection tools were pre-coded and systematically organized to ensure proper data management. File naming and storage systems were established in advance to ensure data integrity and traceability.

3.8 Data Preparation and Analysis

Following data collection, incomplete responses, mistakes, and discrepancies were found by cross-checking the data. SPSS version 20.0 was then used to code and analyze the data. Demographic and variable distributions were displayed using descriptive statistics like frequencies, percentages, tables, bar graphs, and pie charts. Prior to correlation analysis, composite scores were calculated for each construct. Because the study variables were measured using ordinal Likert-scale data and the analysis aimed to determine the direction and intensity of correlations between the variables, Spearman's rank correlation coefficient was deemed appropriate. At the 0.05 level, statistical significance was examined. Through coding, classification, and characterization of recurrent patterns pertaining to curriculum implementation and supervision procedures, qualitative data from interviews were subjected to theme analysis.

4. Results

4.1 General Characteristics of the Sample

The demographic characteristics of the respondents, including gender, age, teaching experience, class taught, school position, and kind of school, are described in this section along with the response rate. It is important to look at these background factors because they provide context for how head teachers' supervision affects standard curricular execution. Frequencies and percentages were used to analyze the demographic data, as shown in Table 4.1, along with a thorough interpretation.

4.1.2 Response Rate

The response rate for head teachers and teachers from the two selected special elementary schools is shown in Table 4.1. There was a 100% response rate since every intended respondent completed the survey. This is considered extraordinary and increases the results' dependability. A response rate of more than 70% is sufficient for reliable data analysis, according to Mugenda and Mugenda (2003); nevertheless, Wamahiu (2015) argues that higher response rates lessen sampling bias and enhance the generalizability of results. Respondents' full participation shows that the study's conclusions are highly representative of the target population, which increases confidence in the reliability and validity of the findings about the supervisory responsibilities of head teachers.

4.1.2 Demographic Information of the Respondents

The demographic profile of the participating teachers is shown in Table 1.

Table 1: Demographic Information of Teachers in Selected Special Schools

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	28	40.0%
	Female	42	60.0%
	Total	70	100.0%
Age bracket	20–30 years	18	25.7%
	31–40 years	32	45.7%
	41–60 years	20	28.6%
	Total	70	100.0%
Years of teaching	1–5 years	14	20.0%
	6–10 years	26	37.1%
	11+ years	30	42.9%
	Total	70	100.0%
Class taught	Lower primary	24	34.3%
	Upper primary	46	65.7%
	Total	70	100.0%
Position in school	Teacher	68	97.1%
	Deputy Head teacher	2	2.9%
	Total	70	100.0%

According to Table 1, female instructors made up the bulk of responses (42, 60.0%), with male professors making up a lower percentage (28, 40.0%). According to the findings, 32 teachers (45.7%) were between the ages of 31 and 40, 20 teachers (28.6%) were between the ages of 41 and 60, and 18 teachers (25.7%) were between the ages of 20 and 30. Thirty teachers (42.9%) had over eleven years of teaching experience, twenty-six teachers (37.1%) had six to ten years, and fourteen teachers (20.0%) had one to five years. The findings indicate that 46 instructors (65.7%) instructed upper elementary, whereas 24 teachers (34.3%) taught lower primary. The predominant respondents were classroom teachers, with 68 (97.1%), whereas only 2 respondents (2.9%) were deputy head teachers. The demographic characteristics indicate a workforce that is primarily female, of intermediate age, and highly experienced, with the majority of educators employed in public special schools and upper primary classes.

4.2 Influence of Head Teacher's Supervision on Competency-Based Assessment

Both quantitative and qualitative techniques were used to analyze the data, as explained in the following subsections:

4.2.1 Quantitative Analysis

Descriptive statistics, such as frequencies, percentages, means, and standard deviations, were used to analyse the competency-based assessment data (items 25–31). The investigation concentrated on how teachers felt about their capacity to create assessment criteria, create rubrics, and carry out formative and summative evaluation under the guidance of head teachers. To ascertain the connection between supervision and competency-based assessment procedures, a composite supervision score was connected with assessment indicators using Spearman's rank correlation coefficient. It is crucial to remember that correlation analysis does not show causation; rather, it just shows connection. Table 2 provides a summary of the results.

Table 2: Supervision of Competency-Based Assessment

Item	SA	A	U	D	SD
Constructing assessment criteria	19 (27.1%)	28 (40.0%)	9 (12.9%)	8 (11.4%)	6 (8.6%)
Constructing rubrics	18 (25.7%)	30 (42.9%)	8 (11.4%)	7 (10.0%)	7 (10.0%)
Formative assessment	22 (31.4%)	27 (38.6%)	7 (10.0%)	8 (11.4%)	6 (8.6%)
Summative assessment	24 (34.3%)	26 (37.1%)	6 (8.6%)	8 (11.4%)	6 (8.6%)
Checking formative assessment	21 (30.0%)	28 (40.0%)	7 (10.0%)	7 (10.0%)	7 (10.0%)
Reporting to parents	20 (28.6%)	29 (41.4%)	6 (8.6%)	9 (12.9%)	6 (8.6%)
Administering CBA	23 (32.9%)	27 (38.6%)	7 (10.0%)	7 (10.0%)	6 (8.6%)

Although there is variation across standardized responsibilities, the results in Table 2 show that teachers generally rated moderate to high agreement across all indicators of competency-based assessment. The majority of teachers appear to be capable of creating criterion-referenced assessments, as indicated by the 67.1% of respondents who agreed or strongly agreed with the formulation of assessment criteria. However, 20% disagreed,

suggesting that a significant percentage of educators are still not proficient in assessment design. From the standpoint of systems theory, this illustrates how different school subsystems have developed differently, with some teachers benefiting more from supervisory support than others. This discrepancy raises the possibility that individual capacity gaps may not be adequately addressed or that supervision may not be applied consistently. These results are in line with Kageema and Irungu's (2018) emphasis that educators need ongoing support when creating competency-based assessment instruments. In a similar vein, Njeng'ere and Ji (2017) discovered that assessment design necessitates ongoing expert assistance in addition to regular supervision. Okeyo *et al.* (2024), however, point out that training deficiencies frequently impede the successful application of CBC assessment procedures, suggesting that monitoring by itself is inadequate in the absence of organized capacity-building.

Further, 68.6% of teachers agreed or strongly agreed with the creation of the rubric, while 20% disapproved. This implies that while supervision aids in the creation of rubrics, it is still comparatively more difficult than other methods of assessment. The technical aspect of rubric creation, which necessitates higher-order assessment literacy, may be the cause of this. This is a technical subsystem restriction within the framework of systems theory, where better supervision needs to be combined with specialized training for optimal performance. These results are consistent with those of Julius (2018), who found that teachers initially have difficulty creating rubrics while implementing CBC. In a similar vein, Emmanuel and Chakrawarty (2026) stress that long-term supervision enhances assessment competencies. Bariham *et al.* (2025), on the other hand, contend that the quality and intensity of supervision are crucial factors and that moderate supervision alone might not considerably improve results.

Additionally, the results demonstrate comparatively greater levels of agreement for formative assessment (70%) and summative assessment (71.4%), suggesting that teachers are more comfortable carrying out assessment procedures than creating assessment instruments. This implies that rather than creating technical assessment tools, supervision is more successful in assisting with the implementation of assessments. From the standpoint of systems theory, this indicates that the operational subsystem performs better than the technical design subsystem. These results are consistent with those of Heredia and Furtak (2018), who discovered that formative assessment enhances the detection of learning gaps. In a similar vein, KICD (2019) highlights ongoing evaluation as essential to the implementation of CBC. Nonetheless, Julius (2018) noted that teachers first had difficulties with formative assessment, indicating that progress might be connected to slow adjustment and continuous professional exposure.

Indicators like checking exams (70%), reporting results (70%), and administering CBA (71.5%) show that, despite generally positive results, 18–22% of teachers still have difficulties. This suggests that not all teachers' assessment procedures have been adequately standardized by supervision. From the standpoint of systems theory, this implies partial system optimization, in which certain parts operate efficiently but others

are still limited. Workload pressure, unequal training exposure, and inconsistent supervisory follow-up are some of the possible causes of these disparities. These results are consistent with Ngugi *et al.* (2023), who observed that inadequate oversight of professional procedures had a detrimental impact on the efficacy of education. In a similar vein, Okeyo *et al.* (2024) pinpoint insufficient supervision and training as major obstacles to CBC implementation. Effective monitoring is crucial for preserving instructional quality in schools, according to Onderi *et al.* (2014).

Table 3: Mean and Standard Deviation for Competency-Based Assessment

Variable	N	Mean	Std. Deviation
Construct criteria	70	3.67	1.17
Construct rubrics	70	3.64	1.18
Formative assessment	70	3.73	1.19
Summative assessment	70	3.77	1.2
Checking assessment	70	3.7	1.18
Reporting results	70	3.69	1.2
Administering CBA	70	3.74	1.18

A moderate to high degree of agreement across competency-based evaluation markers is indicated by Table 3, which displays mean scores ranging from 3.64 to 3.77. Summative evaluation has the highest mean ($M = 3.77$), whereas rubric formulation has the lowest ($M = 3.64$). This implies that teachers are often more comfortable carrying out assessment processes than creating assessment instruments, especially criteria and rubrics. The standard deviations, which range from 1.17 to 1.20 and represent variations in training, experience, and exposure to supervisory support, show moderate diversity across respondents. From the standpoint of systems theory, this shows that although the operational aspects of assessment are operating, technical capacity-building is still a weak subsystem that needs focused intervention. These results are in line with Kagama and Irungu's (2018) emphasis on the significance of assessment design abilities in successful CBC implementation. In a similar vein, Emmanuel and Chakrawarty (2026) discovered that teacher assessment competencies are improved by organized supervision. However, Julius (2018) observed persistent teacher unpreparedness in CBC assessment, suggesting that improvements remain gradual rather than fully achieved.

4.2.2 Spearman Correlation Analysis

To further examine the relationship between head teachers' supervision and competency-based assessment, a supervision composite score was constructed from questionnaire items measuring supervision of professional records, lesson planning, classroom instruction, instructional materials, feedback, and assessment support. The composite score was then correlated with competency-based assessment indicators using Spearman's rank correlation coefficient. All supervision items were coded in the same direction; therefore, no reverse coding was required. The supervision scale demonstrated acceptable internal consistency reliability (Cronbach's $\alpha > 0.70$). Spearman's rho was

selected because the study variables were measured using ordinal Likert-scale responses and the assumptions of normal distribution required for parametric correlation could not be guaranteed. The results are presented in Table 4.

Table 4: Spearman Correlation Matrix between
 Supervision and Competency-Based Assessment

Variable	1	2	3	4	5	6	7	8
1. Head Teachers' Supervision	1							
2. Criteria Construction	.566**	1						
3. Rubric Development	.672**	.611**	1					
4. Formative Assessment	.598**	.615**	.633**	1				
5. Summative Assessment	.577**	.601**	.648**	.652**	1			
6. Checking Assessment	.589**	.659**	.617**	.641**	.628**	1		
7. Reporting Assessment	.578**	.604**	.596**	.615**	.601**	.659**	1	
8. Administering CBA	.582**	.617**	.604**	.633**	.648**	.617**	.604**	1

** Correlation is significant at the 0.01 level (2-tailed)

The correlation results in Table 4 indicate positive and statistically significant relationships ($p < 0.01$) between head teachers' supervision and all competency-based assessment indicators, with coefficients ranging from $r = .566$ to $r = .672$. However, this does not imply causation, but rather a statistical association between the variables. The strongest relationship is between supervision and rubric development ($r = .672$), suggesting that supervision is particularly important in supporting technical assessment skills that require guidance and mentorship. Moderate relationships are observed in formative assessment ($r = .598$) and administration of CBA ($r = .582$), indicating that supervision is more strongly associated with assessment implementation processes than with structural design competencies. From the standpoint of systems theory, these results show that good coordination between head teachers and instructors improves system performance, but the effectiveness of supporting subsystems like resources and training determines the results. These results are consistent with Mugambi's (2017) assertion that instructional supervision enhances assessment procedures. In a similar vein, classroom monitoring improves teacher preparedness, according to Isaboke *et al.* (2021). However, Bariham *et al.* (2025) warn that in the absence of robust institutional support mechanisms, moderate supervision may have little effect.

4.2.3 Qualitative Analysis of Data from Interviews

Additionally, the question "Do teachers possess the capability, capacity, and resources to develop competency-based assessment tools?" was asked of the head teachers and carers during an interview. The quantitative results were better understood thanks to qualitative information gleaned from head teacher interviews. Several recurrent themes and sub-themes were found through thematic and content analysis of the responses; these are discussed and examined in the following subsections:

Theme 3: Competency-Based Assessment Capability (Interview Question 6)

Principal 1 (P1):

HT1 showed that educators' skill levels varied:

"While some teachers are capable of creating assessment tools, others need further training. To improve their competencies, we regularly provide in-service training." (HT1)

Principal 2 (P2):

HT2 focused on gradual improvement through supervision:

"Teachers are gradually improving their assessment tool development, which includes honing their comprehension of efficient evaluation techniques and incorporating feedback from prior assessments." However, in order to guarantee accuracy, we still offer recommendations for rubrics and evaluation criteria. (HT2)

These answers show that while teacher proficiency in competency-based assessment is increasing, it is still unequal among schools and individuals. As a result, supervision serves as both a monitoring tool and a system of developmental support that gradually increases teacher ability. From the standpoint of systems theory, this is a system where enhancing the performance of interdependent components requires ongoing feedback and capacity building. These results are consistent with those of Njeng'ere and Ji (2017) and Okeyo *et al.* (2024), who highlight the need for continuous supervision and training in enhancing CBC implementation. In a similar vein, Emmanuel and Chakrawarty (2026) emphasize that ongoing professional development enhances teacher competency over time.

4.2.4 Triangulation

A comprehensive analysis of both quantitative and qualitative data shows a consistent pattern regarding how head teachers' supervision affects competency-based assessment. The study's quantitative results showed considerable positive correlations ($r = .582$ to $.672$) and moderate-to-strong agreement levels (means between 3.64 and 3.77), indicating that supervision enhances evaluation procedures. Although they still require continual supervision and training, head teachers qualitatively confirmed that teachers' competencies are improving. These research convergences suggest that supervision improves assessment procedures, such as formative and summative evaluation, but is less successful in technical areas like developing criteria and rubrics. This demonstrates the idea of systems theory, which holds that for a system to succeed overall, all of its components must function well. While some components, like implementation, are strong, others, like technical design skills, are weak. According to the study, the improvement of competency-based evaluation is much aided by head teachers' monitoring, but it is not entirely comprehensive. Complete alignment and effectiveness in the application of CBC in special elementary schools require ongoing professional development, targeted training, and improved supervision structures.

5. Conclusion

The study comes to the conclusion that a major factor in the advancement of competency-based assessment procedures was the supervision of head teachers. But the results also showed that teacher proficiency levels differed greatly, especially when it came to data-driven evaluation and ICT integration. This suggests that while supervision enhances evaluation procedures, teacher preparation and professional capacity have a moderating effect. Thus, ongoing professional growth and supervision are necessary for sustainable CBC assessment.

Acknowledgement

Many thanks to my supervisor, Dr. Nelly Otube, for her guidance and help in developing this study. I also thank my friends, family, and coworkers for their assistance throughout the project's development.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Author(s)

Miruka Ochieng Wilson is a highly experienced Special Education teacher, educational researcher, and scholar with over twenty years of professional experience in the education sector in Kenya and the United States of America. He holds a Master of Education (M.Ed.) in Special Needs Education with specialization in Physical Impairment and Other Health Impairments from Kenyatta University, Nairobi, Kenya. His research interests include educational leadership, instructional supervision, curriculum implementation, inclusive education, special needs education, functional and educational assessment, individualized education program (IEP) development, and learner support services for individuals with disabilities. His master's research project, *Head Teachers' Supervision and Curriculum Delivery in Special Primary Schools in Kisumu County, Kenya*, examined the influence of instructional supervision on curriculum implementation in special education settings and contributed to the fields of educational administration and inclusive education. Mr. Wilson has extensive experience serving learners with diverse educational needs in both specialized and inclusive educational settings. He served under the Ministry of Education, Republic of Kenya, for over two decades and currently works as a Special Education Teacher in the Substantially Separate Program at New Bedford Public Schools, Massachusetts, United States of America. He is an alumnus of Kenyatta University, Mount Kenya University, the Kenya Institute of Special Education (KISE), and Bondo Teachers Training College. Through his research, teaching, and professional practice, he continues to advocate for equitable, inclusive, and high-quality educational opportunities for learners with disabilities. **Research interests:** Educational Leadership, Instructional Supervision, Curriculum Implementation,

Inclusive Education, Special Needs Education, Functional and Educational Assessment, Individualized Education Program (IEP) Development, Physical and Intellectual Disabilities, and Educational Policy for Learners with Disabilities.

Email: ochiengwilson2@gmail.com; wmiruka@newbedfordschools.org; 28700.2018@students.ku.ac.ke; wilsonmiruka2@gmail.com.

Dr. Nelly Otube is a Deputy Executive Dean, School Of Education, Lecturer, Department of Early Childhood and Special Needs Education, Kenyatta University, Nairobi, Kenya. Areas of Research Interest: Developmental Disabilities and Physical Disability.

References

- Anyango, H., Koros, P., & Barat, M. S. (2024). Headteachers' In Special Needs Primary Schools And The Implementation Of The Competence-Based Curriculum In Rarieda Sub-County, Siaya County, Kenya. *Journal of Popular Education in Africa*, 8(9), 129-147. Retrieved from <https://kenyasocialscienceforum.wordpress.com/wp-content/uploads/2024/09/pdf-anyango-et-al-headteachers-in-special-needs-primary-schools-and-the-implementation-of-cbc-in-kenya.pdf>
- Arshad, Z., Ahmad, A., & Zafar, J. M. (2025). Role of Head Teachers in Instructional Supervision of Secondary School Teachers in Rahim Yar Khan. *The Critical Review of Social Sciences Studies*, 3(3), 442-453. <https://doi.org/10.59075/yc2v17444>
- Carney, S. (2022). *Reimagining our futures together: a new social contract for education*: by UNESCO, Paris, UNESCO, 2021, 186 pages, ISBN 978-92-3-100478-0 (Vol. 58, No. 4, pp. 568-569). Routledge. Retrieved from https://www.researchgate.net/profile/Stephen-Carney/publication/362352272_Reimagining_our_futures_together_a_new_social_contract_for_education_by_UNESCO_Paris_UNESCO_2021_186_pages_ISBN_978-92-3-100478-0/links/64354f5120f25554da255cfb/Reimagining-our-futures-together-a-new-social-contract-for-education-by-UNESCO-Paris-UNESCO-2021-186-pages-ISBN-978-92-3-100478-0.pdf
- Chepkilot, T. B. K. (2024). *An Analysis of the Relationship Between Schools Preparedness and Implementation of Competency-Based Curriculum in PPSs in Baringo County, Kenya* (Doctoral dissertation, University of Eldoret). Retrieved from <http://erepository.uoeld.ac.ke/bitstream/handle/123456789/2282/FINALBCBethue1%20Too%20Thesis%20Final%20for%20Binding%20Oct%2024-2024.pdf?sequence=1&isAllowed=y>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications. Retrieved from <https://scholar.google.com/citations?user=UzpIzvEAAAJ&hl=en&oi=sra>

- Emmanuel, O., & Chakrawarty, S. (2026). Roles of school administrative support supervision on teachers' competence in the implementation of competency-based curriculum in Lango secondary schools, Uganda. *Cogent Education*, 13(1), 2610039. <https://doi.org/10.1080/2331186X.2025.2610039>
- Fomiškina, J., Woogen, E., Peiris, A., Abdulrazzak, S., & Cameron, E. (2020). Nurturing every learner's potential: Education reform in Kenya. In *Implementing deeper learning and 21st century education reforms: Building an education renaissance after a global pandemic* (pp. 129-144). Cham: Springer International Publishing. Retrieved from https://library.oapen.org/bitstream/handle/20.500.12657/42936/2021_Book_ImplementingDeeperLearningAnd2.pdf?sequence=1#page=133
- Hallinger, P. (2011). Leadership for learning: Lessons from 40 years of empirical research. *Journal of Educational Administration*, 49(2), 125-142. Retrieved from https://www.researchgate.net/profile/Philip-Hallinger/publication/241674642_Leadership_for_learning_Lessons_from_40_years_of_empirical_research/links/55c681a108aea2d9bdc54820/Leadership-for-learning-Lessons-from-40-years-of-empirical-research.pdf
- Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *The Elementary School Journal*, 86(2), 217-247. Retrieved from <https://www.maxwell.vrac.puc-rio.br/35000/35000.PDF>
- Hallinger, P., Liu, S., & Niu, X. (2025). Cultural context, principal instructional leadership, and teacher efficacy: A meta-analytic review, 1989–2024. *Educational Management Administration & Leadership*. Retrieved from [https://scholar.google.com/scholar?scilib=1&scioq=Hallinger,+P.,+Liu,+S.,+%26+Niu,+X.,+\(2025\).+Cultural+context,+principal+instructional+leadership,+and+teacher+efficacy:+A+meta-analytic+review,+1989%E2%80%932024.+Educational+Management+Administration+%26+Leadership,+17411432251349810.&hl=en&as_sdt=0,5](https://scholar.google.com/scholar?scilib=1&scioq=Hallinger,+P.,+Liu,+S.,+%26+Niu,+X.,+(2025).+Cultural+context,+principal+instructional+leadership,+and+teacher+efficacy:+A+meta-analytic+review,+1989%E2%80%932024.+Educational+Management+Administration+%26+Leadership,+17411432251349810.&hl=en&as_sdt=0,5)
- Kabuuka, D., Kaggwa, R. V. T., & Kasujja, J. P. (2024). Headteachers' Support Supervision And Enhancement of UPE Teachers' Teaching Effectiveness In Kibaale District: A Case Study Of Kibaale Town Council, Uganda. *European Journal of Education Studies*, 11(7). Retrieved from <https://scholar.google.com/citations?user=ElmHgZ8AAAAJ&hl=en&oi=sra>
- Kast, F. E., & Rosenzweig, J. E. (1972). General systems theory: Applications for organization and management. *Academy of Management Journal*, 15(4), 447-465. http://www.communicationcache.com/uploads/1/0/8/8/10887248/general_system_theory-applications_for_organization_and_management.pdf
- Kast, F. E., & Rosenzweig, J. E. (1972). General systems theory: Applications for organization and management. *Academy of Management Journal*, 15(4), 447-465. Retrieved from

- http://www.communicationcache.com/uploads/1/0/8/8/10887248/general_system_theory-applications_for_organization_and_management.pdf
- Kasuga, W., & Kalolo, J. F. (2025). Competency-based curriculum in Tanzania: Charting dilemmas for successful implementation. *Cogent Education*, 12(1), 2563711. <https://www.tandfonline.com/doi/pdf/10.1080/2331186X.2025.2563711>
- Kayirebe, C. (2025). *Head-teachers' supervision roles in enhancing teachers' effectiveness in selected public secondary schools in Kamwenge district, Uganda* (Doctoral dissertation, Uganda Martyrs University). <https://dissertations.umu.ac.ug/bitstream/handle/123456789/1841/KAYIREBE%20Claire EDUC MED%20EAM 2025 %20William%20Musamba.pdf?sequence=1&isAllowed=y>
- Kayyali, M., & Noori, N. A. (2026). The Role of Competency-Based Education in Building Inclusive and Sustainable Communities. *Kunduz University International Journal of Islamic Studies and Social Sciences*, 125-139. Retrieved from <https://scholar.google.com/citations?user=xiIak0gAAAAJ&hl=en&oi=sra>
- Luembo, H., Opiyo, R. A., & Otieno, K. (2023). Effect of Instructional Supervision on Utilization of Teaching and Learning Resources for Implementation of CBC in Pre-Primary Classrooms in Webuye East Sub-County, Bungoma County, Kenya. *African Journal of Empirical Research*, 4(2), 719-726. Retrieved from <https://scholar.google.com/citations?user=LDwC6igAAAAJ&hl=en&oi=sra>
- Muengele, S., Nasongo, J. W., & Injendi, J. (2025). The analysis of Nyerere's philosophy of education for self-reliance on Kenya's competency-based curriculum (CBC). *African Quarterly Social Science Review*, 2(4), 552-559. Retrieved from <https://scholar.google.com/citations?user=NozNmNIAAAAJ&hl=en&oi=sra>
- Mugambi. (2017). *Approaches to inclusive education: Implications for Curriculum Theory and Practice*. Nairobi, Kenya. Retrieved from <https://quarterlyreview.net/ojs/index.php/aqssr/article/download/277/181>
- Mwanasiti, M. M. (2019). *Influence of Head Teachers' Management Role on Learners' Academic Performance in PPSs in Kisauni Sub County, Kenya* (Doctoral dissertation, KeMU). Retrieved from [https://scholar.google.com/scholar?scilib=1&scioq=Mwanasiti,+M.+M.+\(2019\).+Influence+Of+Head+Teachers%E2%80%99+Management+Role+on+Learners%E2%80%99+academic+Performance+in+PPSs+in+Kisauni+Sub+County,+Kenya+\(Doctoral+dissertation,+KeMU\).&hl=en&as_sdt=0,5](https://scholar.google.com/scholar?scilib=1&scioq=Mwanasiti,+M.+M.+(2019).+Influence+Of+Head+Teachers%E2%80%99+Management+Role+on+Learners%E2%80%99+academic+Performance+in+PPSs+in+Kisauni+Sub+County,+Kenya+(Doctoral+dissertation,+KeMU).&hl=en&as_sdt=0,5)
- Ndihokubwayo, K., & Habiyaemye, H. T. (2018). Why Did Rwanda Shift from Knowledge to Competence Based Curriculum? Syllabuses and Textbooks Point of View. *Online Submission*, 12(3), 38-48. Retrieved from https://scholar.google.com/citations?user=M34f0_cAAAAJ&hl=en&oi=sra
- Njeng'ere, D., & Ji, L. (2017). The why, what and how of competency-based curriculum reforms: The Kenyan Experience. *UNESCO International Bureaus of Education*. Retrieved from

[https://scholar.google.com/scholar?scilib=1&scioq=+Njeng%27ere,+D.,+%26+ji,+L.,+\(2017\).+The+why,+what+and+how+of+competency-based+curriculum+reforms:+The+Kenyan+Experience.+UNESCO+International+Bureaus+of+Education.&hl=en&as_sdt=0,5](https://scholar.google.com/scholar?scilib=1&scioq=+Njeng%27ere,+D.,+%26+ji,+L.,+(2017).+The+why,+what+and+how+of+competency-based+curriculum+reforms:+The+Kenyan+Experience.+UNESCO+International+Bureaus+of+Education.&hl=en&as_sdt=0,5)

- Okeyo, E., Areba, G., & Obuba, E. (2024). Head teachers' Instructional Training and Instructional Supervisory Challenges in the Implementation of the Competency-Based Curriculum in PPSs in Kisii Central Sub-County. *Journal of the Kenya National Commission for UNESCO*, 4(2). Retrieved from <https://scholar.google.com/citations?user=1cBkE4AAAAAJ&hl=en&oi=sra>
- Sifuna, D. N., & Obonyo, M. M. (2019). Competency-based curriculum in primary schools in Kenya: prospects and challenges of implementation. *Journal of Popular Education in Africa*, 3(7), 39-50. Retrieved from <https://kenyasocialscienceforum.wordpress.com/wp-content/uploads/2019/09/pdf-daniel-sifuna-mark-obonyo-competency-based-curriculum-in-primary-schools-in-kenya-prospects-and-challenges-of-implementation.pdf>
- Von Bertalanffy, L. (1968). General system theory. *New York*, 41973(1968), 40. Retrieved from [https://scholar.google.com/scholar?scilib=1&scioq=+Von+Bertalanffy,+L.,+\(1968\).+General+system+theory.+New+York,+41973\(1968\),+40.&hl=en&as_sdt=0,5](https://scholar.google.com/scholar?scilib=1&scioq=+Von+Bertalanffy,+L.,+(1968).+General+system+theory.+New+York,+41973(1968),+40.&hl=en&as_sdt=0,5)
- Waruingi, A. W., Mbogo, R., & Mambo, A. (2022). Assessment of challenges faced by principals in the implementation of the Competency-Based Curriculum in PPSs in Kenya: A case of Kiambu County. *Journal of Education*, 2(2), 26-39. Retrieved from https://www.academia.edu/download/121043088/published_manuscript_4_.pdf
- Wawire, B. A., Kiambati, F., Muhia, N., Gathoni, G., & Abuya, B. (2025). Competence-based curriculum implementation in Africa: a scoping review of pedagogical and assessment practices. *Journal of Curriculum Studies*, 1-30. <https://doi.org/10.1080/00220272.2025.2523429>