Teachers' Preparedness for Competency-Based Curriculum Delivery in Secondary Schools in Kaduna State, Nigeria

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Abstract
Competency-based curriculum (CBC) delivery has emerged as a critical paradigm in global education reform, shifting pedagogical emphasis from content transmission to the holistic development of learners' skills, values, and knowledge. Yet, its successful implementation is contingent on the readiness of teachers who serve as the primary agents of curriculum enactment. This quantitative descriptive survey examined teachers' preparedness for CBC delivery in Kaduna State secondary schools across three dimensions: awareness of CBC principles, availability of instructional materials, and attitudes towards CBC delivery. A stratified random sample of 384 secondary school teachers drawn from the three senatorial districts of Kaduna State constituted the study participants. Data were collected using a validated, researcher-designed questionnaire titled "Teachers' Preparedness for Competency-Based Curriculum Delivery Scale" (TPCBCDS), with a reliability coefficient of 0.84 obtained through Cronbach's alpha. Descriptive statistics (mean and standard deviation) were used to answer the research questions, while independent samples t-test, one-way ANOVA with post-hoc comparisons, and Pearson product-moment correlation were employed to test the null hypotheses and explore inter-dimensional relationships at a 0.05 level of significance. Findings revealed that teachers demonstrated a low level of awareness of CBC principles; instructional materials and resources were grossly inadequate; and teachers held moderately positive attitudes towards CBC delivery. Significant differences were found in awareness and resource availability across school locations (urban vs. rural) and across the three senatorial districts, while no significant gender difference existed in teachers' attitudes. A significant positive correlation was found among all three preparedness dimensions. The study recommends intensive in-service training, procurement of CBC-aligned instructional resources, and a sustained policy framework to support CBC implementation in Kaduna State secondary schools.

Keywords: Competency-based curriculum, teachers' preparedness, instructional materials, teachers' awareness, secondary schools

Introduction

The global education landscape has undergone profound transformations in the early decades of the twenty-first century, driven by the need to produce graduates who are not only knowledgeable but competent, adaptive, and equipped with skills relevant to contemporary societal demands. The traditional content-based curriculum, characterised by rote memorisation and teacher-centred instruction, has proven increasingly inadequate in preparing learners for a knowledge-driven, technologically dynamic world (Westera, 2017). In response, education systems worldwide have embraced competency-based curriculum (CBC) frameworks that prioritise measurable outcomes, learner agency, critical thinking, problem-solving, and the integration of life skills into teaching and learning processes (Mulder, 2017). This pedagogical repositioning is anchored on the principle that education must connect classroom experiences to real-life contexts, enabling learners to apply their acquired knowledge and skills flexibly across diverse situations (Ohadiugha, 2023).

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Within the African educational context, several countries have adopted or are in the process of adopting CBC models at various levels of schooling. Kenya, Uganda, Ghana, and Rwanda have led these continental reforms, introducing competency-based frameworks at primary and secondary school levels with varying degrees of success (Oranga et al., 2020). Nigeria, as Africa's most populous nation, has similarly embarked on a deliberate shift from content-based to competency-based education, embedding this orientation in the revised National Policy on Education and the curricular frameworks developed by the Nigerian Educational Research and Development Council (NERDC) and the National Commission for Colleges of Education (NCCE, 2020). The Federal Government of Nigeria has emphasised critical thinking, digital literacy, problem-solving, and practical skill acquisition as essential graduate attributes at the secondary school level, necessitating a fundamental rethinking of curriculum design, instructional delivery, and teacher preparation (Kalu et al., 2023).

Kaduna State has engaged in several educational reform initiatives aimed at improving access, equity, and quality of education, including recent efforts to align its curriculum delivery with the competency-based orientation endorsed at the federal level (Punch Nigeria, 2025). Curriculum reforms of this magnitude, however, demand that teachers possess not only an awareness of the new curriculum framework but also the pedagogical skills, professional attitudes, and instructional resources necessary to translate curricular intentions into effective classroom practice. Teachers remain the most critical variable in the successful implementation of any curriculum reform, and their preparedness directly determines the quality of learning outcomes (Darling-Hammond et al., 2017).

Despite the widespread recognition of CBC as a transformative educational framework, empirical evidence from sub-Saharan Africa consistently reveals that teachers are frequently underprepared for its delivery (Isaboke et al., 2021). Studies conducted in Kenya, Uganda, and other African nations have documented serious deficiencies in teachers' awareness of CBC principles, inadequacy of training and professional development programmes, and shortages of appropriate instructional materials (Momanyi & Rop, 2020; Silas, 2020). In Nigeria's context, similar concerns have been raised about the disconnect between policy intentions and classroom realities. Balogun (2020) observed that public secondary schools in Nigeria frequently suffer from overcrowded classrooms, a lack of teaching and learning materials, and insufficient infrastructure—all of which undermine effective curriculum delivery.

In Kaduna State specifically, while government efforts have been made to reform school governance and improve educational quality, little empirical attention has been directed at evaluating teachers' preparedness for CBC delivery at the secondary school level. Several studies have examined teachers' knowledge, attitudes, and competences in the context of specific subjects in the state (Edupij, 2023), but a holistic assessment of teacher preparedness across the core dimensions of CBC awareness, resource availability, and attitudinal orientation remains conspicuously absent in the literature. Consequently, policymakers, curriculum planners, and educational administrators continue to operate without an empirically grounded understanding of the readiness levels of teachers who are expected to deliver CBC in Kaduna State secondary schools.

This study, therefore, fills a significant gap by empirically assessing teachers' preparedness for CBC delivery in Kaduna State secondary schools. It focuses specifically on three critical dimensions: teachers' awareness of CBC principles, the availability of instructional materials and resources to support CBC implementation, and the attitudes of teachers towards CBC

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delivery. By providing evidence-based insights from this under-researched context, the study seeks to inform targeted policy interventions, professional development programmes, and resource mobilisation strategies that can accelerate the effective implementation of CBC in Kaduna State and, by extension, in the Nigerian secondary education system. Thus, this study was guided by the following specific objectives:

i. To assess the level of awareness of competency-based curriculum (CBC) principles among secondary school teachers in Kaduna State.
ii. To assess the availability of instructional materials and resources needed to support competency-based curriculum delivery in Kaduna State secondary schools.
iii. To examine teachers' attitudes towards competency-based curriculum delivery in secondary schools in Kaduna State.

The research questions were:

i. What is the level of awareness of competency-based curriculum (CBC) principles among secondary school teachers in Kaduna State?
ii. What is the level of availability of instructional materials and resources needed to support competency-based curriculum delivery in secondary schools in Kaduna State?
iii. What are the attitudes of teachers towards competency-based curriculum delivery in secondary schools in Kaduna State?

The following null hypotheses were tested at 0.05 level of significance:

H_{01}: There is no significant difference in the level of awareness of competency-based curriculum (CBC) principles among secondary school teachers in Kaduna State based on school location.

H_{02}: There is no significant difference in the availability of instructional materials and resources needed to support competency-based curriculum delivery in secondary schools in Kaduna State based on school location.

H_{03}: There is no significant difference in the attitude of teachers towards competency-based curriculum delivery in secondary schools in Kaduna State based on gender.

H_{04}: There is no significant difference in the level of awareness of CBC principles among secondary school teachers across the three senatorial districts of Kaduna State.

H_{05}: There is no significant difference in the availability of instructional materials and resources among secondary school teachers across the three senatorial districts of Kaduna State.

H_{06}: There is no significant relationship between teachers' awareness of CBC principles, availability of instructional materials and resources, and teachers' attitudes towards CBC delivery in Kaduna State secondary schools.

Literature Review

Theoretical Orientation

Bandura's Self-Efficacy Theory

Albert Bandura's (1997) Social Cognitive Theory posits that individuals' beliefs in their own capabilities to organise and execute the courses of action required to achieve specified outcomes are fundamental determinants of behaviour, effort, and persistence. Within the context of curriculum implementation, teacher self-efficacy—defined as a teacher's belief in their capacity to plan, deliver, and assess competency-based learning—exerts a profound influence on their willingness to adopt new instructional approaches and persevere through the challenges inherent in curriculum reform (Bandura, 1997). Bandura identifies four primary sources of self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and physiological states. Applied to this study, teachers who have received

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adequate training in CBC methodologies (mastery experience) and who have observed effective CBC delivery by colleagues (vicarious experience) are more likely to develop the self-efficacy needed to implement CBC confidently in their classrooms. Research by Isaboke et al. (2021) corroborates this position, finding that teachers with higher self-efficacy demonstrated more innovative, adaptive, and collaborative teaching practices aligned with CBC principles. Conversely, where professional development opportunities are lacking and instructional resources are insufficient, teacher self-efficacy declines, resulting in resistance to, or superficial compliance with, CBC demands. This theoretical lens is particularly pertinent to Kaduna State, where systemic underfunding and limited in-service training opportunities may have constrained the development of teacher self-efficacy for CBC delivery.

Vygotsky's Sociocultural Theory and Constructivism

Lev Vygotsky's (1978) Sociocultural Theory holds that learning is fundamentally a social process mediated by language, culture, and collaborative interaction within a learner's Zone of Proximal Development (ZPD). CBC is deeply rooted in constructivist learning principles, which emphasise that learners actively construct knowledge through experience, reflection, and social interaction rather than passively receiving information from teachers (Birenbaum et al., 2016). Within the constructivist paradigm, teachers transition from transmitters of content to facilitators who scaffold learners' construction of knowledge, guide inquiry, and foster higher-order thinking skills. This pedagogical reorientation demands that teachers possess deep conceptual understanding of CBC principles, confidence in learner-centred instruction, and access to the varied instructional materials that constructivist pedagogy requires. Several studies have demonstrated that teachers' uptake of constructivist-aligned curricula is contingent on their initial awareness of and attitude toward these frameworks (Balogun, 2020; Oranga et al., 2020). For Kaduna State secondary school teachers, the extent to which Vygotsky's principles have been institutionalised in professional development programmes directly determines their capacity to deliver CBC effectively. The ZPD concept also holds significant implications for teacher professional development design: CBC training programmes must situate teachers within their existing professional knowledge zones and provide scaffolded, collaborative learning experiences that gradually extend their pedagogical competence towards full CBC proficiency. This theoretical lens provides a direct framework for understanding how attitudinal readiness—which this study found to be relatively strong—can be translated into instructional competence through structured, ZPD-sensitive professional development. Together, Bandura's self-efficacy theory and Vygotsky's sociocultural framework provide a robust explanatory architecture for understanding the interplay of awareness, resource availability, and attitude in shaping teachers' preparedness for CBC delivery.

Conceptual Literature

A competency-based curriculum is an educational programme explicitly designed to equip learners with the ability to systematically apply knowledge, attitudes, skills, and judgement in performing tasks within specific contexts (Ohadiugha, 2023). Unlike traditional content-based curricula that primarily focus on what learners are expected to know, CBC foregrounds what learners are expected to do with what they know, emphasising measurable outcomes and demonstrable competencies. According to Kalu et al. (2023), CBC provides learners with multiple pathways to achieve mastery of competency, allows them to progress at their own pace, and focuses learning efforts on areas where individual improvement is required. The key principles of CBC include its outcome-based nature, learner-centredness, equity orientation, integration of real-world application, and emphasis on formative and

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competency-aligned assessment (Mulder, 2017). These principles demand that teachers possess a solid conceptual understanding of CBC frameworks and are equipped with the pedagogical skills and instructional tools to operationalise them in classrooms.

Teacher awareness of CBC principles is widely regarded as a fundamental precondition for effective curriculum delivery. A teacher who lacks awareness of the core principles and components of CBC will inevitably default to familiar content-based instructional approaches, thereby undermining curriculum intentions. Studies conducted across African contexts have consistently documented low to moderate levels of CBC awareness among teachers. Momanyi and Rop (2020) found that inadequate teacher preparation, particularly regarding CBC philosophy and its attendant pedagogical demands, was the most significant challenge confronting CBC implementation in Kenya. Similarly, a study by Silas (2020) reported that many teachers lacked competence in Information and Communication Technology (ICT) integration, a core requirement of contemporary CBC delivery, largely due to insufficient awareness and training. In Uganda, a study by Gladyce et al. (2025) on lower secondary competence-based curriculum implementation found significant preparedness gaps attributed to insufficient pre-service and in-service training, underscoring the need for sustained, contextualised professional development. In Nigeria, where CBC-aligned reforms are gaining momentum under the NCCE's revised NCE Minimum Standards framework (NCCE, 2020), the question of teacher awareness at the secondary school level remains inadequately investigated, particularly within the Kaduna State context.

The availability of appropriate instructional materials is a critical enabling condition for CBC delivery. Competency-based pedagogy demands a rich array of learner-centred resources, including manipulatives, digital tools, project materials, laboratory equipment, contextualised textbooks, and assessment instruments aligned with specific competencies (Isaboke et al., 2021). Research in sub-Saharan Africa has consistently established that inadequate instructional resources constitute a major barrier to CBC implementation. Isaboke et al. (2021) found that 100% of junior school teachers in the schools studied agreed that their institutions lacked adequate resources for CBC implementation. A study by Okwena et al. (2024) further established that instructional materials, physical infrastructure, and teacher preparedness collectively predicted CBC implementation by approximately 34.9%, signifying the critical role of resource availability. Balogun (2020) noted that public secondary schools in Nigeria frequently suffer from shortages of teaching and learning materials, a deficiency that is particularly acute in rural and peri-urban schools. This resource gap not only constrains teachers' ability to implement CBC effectively but also erodes their confidence and motivation, creating a cyclical reinforcement of unpreparedness.

Teachers' attitudes towards curriculum reform occupy a central position in implementation research, as attitudinal orientation, whether positive or negative, mediates the degree of engagement, effort, and creativity that teachers invest in curriculum delivery. Research findings on teachers' attitudes towards CBC are mixed. Ondimu (2018) and Oranga et al. (2020), cited in studies by Baraza et al. (2024), reported that a majority of teachers held positive attitudes towards CBC following initial training, but these positive dispositions were frequently undermined by systemic challenges including workload, inadequate resources, and administrative unsupportiveness. In contrast, other studies have reported resistance among teachers who perceive CBC as an additional burden on an already demanding professional landscape, particularly where compensation and professional support structures are inadequate (Momanyi & Rop, 2020). In the Nigerian context, Ohadiugha (2023) observed that teachers' attitudes towards CBC-aligned reforms are influenced by the quality and

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consistency of professional development opportunities, the clarity of policy directives, and the extent to which schools are resourced for competency-based delivery. A study by Ajuonuma (2006) on educational assessment in Nigeria established that teachers' attitudinal orientation towards pedagogical innovations is significantly shaped by their perceived self-efficacy and the institutional support available to them. Understanding teachers' attitudes in Kaduna State therefore requires an examination of these contextual and systemic factors.

Methodology

This study adopted a descriptive survey research design. A descriptive survey design was deemed appropriate because the study sought to systematically gather, describe, and analyse information about the current state of teachers' preparedness for CBC delivery without manipulating any variables (Kothari, 2014). This design has been widely employed in educational research in Nigeria and elsewhere to investigate teachers' knowledge, attitudes, and preparedness in relation to curriculum reforms (Edupij, 2023). The target population comprised all secondary school teachers in public senior secondary schools across the three senatorial districts of Kaduna State: Kaduna North, Kaduna Central, and Kaduna South. Based on records from the Kaduna State Secondary Education Board (KADSSEB), the total population of teachers across these schools was estimated at 9,218. This population included teachers from both urban and rural school settings.

A sample of 384 teachers was drawn using stratified random sampling to ensure proportional representation across the three senatorial districts and across school locations (urban and rural). The sample size was determined using the Taro Yamane (1967) formula: $n = N / [1 + N(e^2)]$, where n = sample size, N = population size (9,218), and e = margin of error (0.05). This yielded a sample of 364, which was rounded up to 384 to account for possible attrition and non-responses. The distribution was: Kaduna North (137 teachers), Kaduna Central (125 teachers), and Kaduna South (122 teachers). Within each district, schools were selected through simple random sampling, and teachers were selected proportionally from each school. Data were collected using a researcher-designed questionnaire titled "Teachers' Preparedness for Competency-Based Curriculum Delivery Scale" (TPCBCDS). The instrument was structured into four sections: Section A (Demographic Information), Section B (Awareness of CBC Principles — 12 items), Section C (Availability of Instructional Materials and Resources — 10 items), and Section D (Attitudes Towards CBC Delivery — 10 items). Items in Sections B, C, and D were rated on a five-point Likert scale: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1). Face and content validity of the instrument were established through expert review by three curriculum studies specialists. The Cronbach's alpha reliability coefficient of the instrument was 0.84, indicating a high level of internal consistency (Darling-Hammond et al., 2017). A modified mean benchmark was adopted as follows: means of 3.50–5.00 indicated a high level, 2.50–3.49 indicated a moderate level, and 1.00–2.49 indicated a low level. For the attitude scale, means of 3.50–5.00 indicated a positive attitude, 2.50–3.49 a neutral/moderate attitude, and below 2.50 a negative attitude.

Descriptive statistics, specifically mean ($\bar{x}$) and standard deviation (SD)—were used to answer the three research questions. Independent samples t-test was used to test H_{01}, H_{02}, and H_{03} (comparing groups by school location and gender). One-way ANOVA was employed to test H_{04} and H_{05}, comparing awareness and resource availability across the three senatorial districts (Kaduna North, Kaduna Central, and Kaduna South). Where ANOVA yielded significant results, Tukey's Honest Significant Difference (HSD) post-hoc test was applied to identify the specific district pairs that differed significantly. Pearson product-moment

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correlation coefficients were computed to test H_{06} and examine the strength and direction of the relationships between the three study dimensions: awareness of CBC principles, availability of instructional materials and resources, and teachers' attitudes towards CBC delivery. All analyses were conducted using the Statistical Package for Social Sciences (SPSS) version 27. Out of 384 copies of the questionnaire administered, 371 were retrieved and found usable, representing a 96.6% response rate.

Results

Research Question 1: Level of Awareness of CBC Principles

Table 1: Descriptive Statistics on Level of Awareness of CBC Principles Among Secondary School Teachers in Kaduna State (n = 371)

S/N	Item Statement	$\bar{x}$	SD	Decision
1	Aware of the conceptual framework underlying the competency-based curriculum	2.34	0.97	Low
2	Have received formal training on CBC instructional delivery methods	1.98	0.89	Low
3	Understand the distinction between content-based and competency-based curriculum	2.41	1.02	Low
4	Familiar with the assessment strategies used in competency-based curriculum	2.19	0.93	Low
5	Know how to develop competency-based lesson plans	2.07	0.88	Low
6	Aware of the learner-centred pedagogical approaches required by CBC	2.53	0.98	Moderate
7	Can identify the core competencies expected of learners at the secondary school level	2.47	1.01	Low
8	Aware of the role of ICT integration in CBC delivery	2.38	0.95	Low
9	Understand how to use formative assessment tools in a CBC framework	2.21	0.91	Low
10	Have knowledge of the national CBC policy frameworks in Nigeria	2.16	0.86	Low
11	Have participated in workshops or seminars specifically focused on CBC	1.92	0.84	Low
12	Aware of the principles of differentiated instruction as applicable to CBC	2.29	0.90	Low
Grand Mean		**2.25**	**0.93**	**Low**

The results presented in Table 1 reveal that the overall grand mean for teachers' awareness of CBC principles was 2.25 (SD = 0.93), indicating a low level of awareness. Only item 6, which assessed teachers' awareness of learner-centred pedagogical approaches, attained a moderate level ($\bar{x}$ = 2.53). All other items recorded means below 2.50, indicating that secondary school teachers in Kaduna State possess limited awareness of the core principles, frameworks, assessment strategies, and instructional methodologies associated with CBC delivery.

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Research Question 2: Availability of Instructional Materials and Resources

Table 2: Descriptive Statistics on Availability of Instructional Materials and Resources for CBC Delivery in Kaduna State Secondary Schools (n = 371)

S/N	Item Statement	x̄	SD	Decision
1	School has adequate CBC-aligned textbooks for teaching	1.89	0.82	Low
2	There are sufficient digital devices (tablets, laptops) for CBC delivery	1.64	0.77	Low
3	School has functional science laboratories for practical CBC activities	2.12	0.93	Low
4	There are adequate project-based learning materials available in my school	1.78	0.81	Low
5	School has access to the internet for ICT-integrated CBC delivery	1.71	0.79	Low
6	There are sufficient assessment tools aligned with CBC competencies available to teachers	2.03	0.87	Low
7	School provides adequate consumables and classroom manipulatives for CBC activities	1.94	0.84	Low
8	School library is stocked with CBC-relevant reference materials	2.18	0.91	Low
9	School has adequate physical infrastructure to support CBC-aligned learning environments	2.31	0.96	Low
10	Teachers in my school are provided with CBC curriculum guides and syllabi	2.45	1.01	Low
	Grand Mean	2.01	0.87	Low

Table 2 shows that the grand mean for the availability of instructional materials and resources was 2.01 (SD = 0.87), indicating a low level of resource availability across all items. The highest-rated item was item 10, concerning the provision of CBC curriculum guides and syllabi (x̄ = 2.45), while digital device availability was the most critically deficient area (x̄ = 1.64). These findings indicate that Kaduna State secondary schools are grossly under-resourced for effective CBC delivery.

Research Question 3: Teachers' Attitudes Towards CBC Delivery

Table 3: Descriptive Statistics on Teachers' Attitudes Towards CBC Delivery in Kaduna State Secondary Schools (n = 371)

S/N	Item Statement	x̄	SD	Decision
1	Believe that CBC has the potential to improve the quality of learning outcomes	3.74	0.88	Positive
2	Willing to adopt learner-centred instructional approaches required by CBC	3.58	0.92	Positive
3	Think CBC is more relevant to contemporary societal needs than the existing curriculum	3.61	0.94	Positive
4	Feel enthusiastic about receiving training on CBC delivery methods	3.82	0.86	Positive
5	Believe the current resources in my school are insufficient for CBC implementation	3.91	0.79	Positive
6	Feel that CBC places excessive workload on teachers	3.47	1.03	Moderate
7	Confident in my ability to deliver CBC if properly trained	3.66	0.91	Positive
8	Think CBC will promote critical thinking and problem-solving skills in students	3.79	0.85	Positive
9	Support the transition from content-based to competency-based curriculum in Nigeria	3.54	0.98	Positive
10	Willing to collaborate with colleagues in designing CBC lesson plans	3.71	0.87	Positive
Grand Mean		**3.68**	**0.90**	**Positive**

The results in Table 3 indicate that secondary school teachers in Kaduna State hold generally positive attitudes towards CBC delivery, with a grand mean of 3.68 (SD = 0.90). The highest-rated attitude item was the belief that current resources are insufficient for CBC

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implementation ($\bar{x}$ = 3.91), which, while reflecting awareness of systemic constraints, also suggests that teachers recognise and support the resourcing demands of CBC. Notably, item 6 on workload concerns attained only a moderate mean ($\bar{x}$ = 3.47), suggesting that some teachers harbour reservations about the additional demands CBC may impose.

Hypothesis Testing

Table 4: Independent Samples t-Test on Differences in the Level of Awareness of CBC Principles Based on School Location (H_{01})

Variable	n	$\bar{x}$	SD	t-cal	df	t-crit	Sig.	Decision
Urban Schools	212	2.54	0.91					
Rural Schools	159	1.86	0.78	8.14	369	1.967	.000	Reject H_{01}

Table 4 reveals that the calculated t-value (8.14) is greater than the critical t-value (1.967) at df = 369 and $p < 0.05$. Accordingly, H_{01} is rejected. There is a statistically significant difference in the level of awareness of CBC principles between urban school teachers ($\bar{x}$ = 2.54) and rural school teachers ($\bar{x}$ = 1.86), with urban teachers demonstrating a significantly higher level of awareness. This finding suggests that access to professional development opportunities and information about CBC is disproportionately concentrated in urban school settings.

Table 5: Independent Samples t-Test on Differences in the Availability of Instructional Materials Based on School Location (H_{02})

Variable	n	$\bar{x}$	SD	t-cal	df	t-crit	Sig.	Decision
Urban Schools	212	2.31	0.84					
Rural Schools	159	1.62	0.72	8.87	369	1.967	.000	Reject H_{02}

The results in Table 5 show that the calculated t-value (8.87) exceeds the critical t-value (1.967) at 0.05 significance level, leading to the rejection of H_{02}. A significant difference exists in the availability of instructional materials between urban ($\bar{x}$ = 2.31) and rural schools ($\bar{x}$ = 1.62). Rural schools are considerably more resource-deprived, a finding consistent with the pattern of educational inequity documented across Nigeria's secondary education landscape.

Table 6: Independent Samples t-Test on Differences in Teachers' Attitudes Towards CBC Based on Gender (H_{03})

Variable	n	$\bar{x}$	SD	t-cal	df	t-crit	Sig.	Decision
Male Teachers	219	3.71	0.88					Fail to Reject
Female Teachers	152	3.64	0.93	0.77	369	1.967	.443	H_{03}

Table 6 reveals that the calculated t-value (0.77) is less than the critical t-value (1.967) at df = 369 and $p > 0.05$. H_{03} is therefore not rejected. There is no statistically significant difference in the attitudes of male and female teachers towards CBC delivery, indicating that both gender groups share comparably positive orientations towards CBC implementation.

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Table 7: *Descriptive Statistics and One-Way ANOVA for CBC Awareness Across Senatorial Districts (H_{04})*

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F	Sig.	Decision
Between Groups	14.27	2	7.14	12.43	.000	
Within Groups	211.32	368	0.57			
Total	225.59	370				Reject H_{04}

Senatorial District	n	x̄	SD
Kaduna North	132	2.48	0.91
Kaduna Central	120	2.19	0.89
Kaduna South	118	2.07	0.94
Total	**370**	**2.25**	**0.93**

The one-way ANOVA result in Table 7 shows a statistically significant difference in teachers' awareness of CBC principles across the three senatorial districts, $F(2, 368) = 12.43$, $p < .001$. Accordingly, H_{04} is rejected. Tukey's HSD post-hoc analysis revealed that teachers in Kaduna North ($\bar{x} = 2.48$) had significantly higher awareness than those in Kaduna Central ($p = .004$) and Kaduna South ($p < .001$). No significant difference was found between Kaduna Central and Kaduna South ($p = .423$). These findings suggest that proximity to the state capital and associated professional development infrastructure in Kaduna North contributes to relatively higher, though still low, levels of CBC awareness.

Table 8: Descriptive Statistics and One-Way ANOVA for Resource Availability Across Senatorial Districts (H_{05})

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F	Sig.	Decision
Between Groups	17.84	2	8.92	14.67	.000	Reject H_{05}
Within Groups	223.71	368	0.61			
Total	**241.55**	**370**				

Senatorial District	n	x̄	SD
Kaduna North	132	2.48	0.91
Kaduna Central	120	2.19	0.89
Kaduna South	118	2.07	0.94
Total	**370**	**2.25**	**0.93**

Table 8 indicates a statistically significant difference in the availability of instructional materials and resources across senatorial districts, $F(2, 368) = 14.67$, $p < .001$. H_{05} is therefore rejected. Tukey's HSD post-hoc analysis revealed that Kaduna North had significantly higher resource availability than both Kaduna Central ($p = .002$) and Kaduna South ($p = .001$). No statistically significant difference was found between Kaduna Central and Kaduna South ($p = .891$). This pattern mirrors the awareness findings and reinforces the existence of district-level disparities in CBC readiness infrastructure, suggesting a concentration of resources in Kaduna North.

Table 9: Pearson Product-Moment Correlation Matrix Among the Three Study Dimensions (H_{06}, $n = 371$)

Variable	1. Awareness (A)	2. Resource Availability (R)	3. Attitude (T)
1. Awareness (A)	1.00	—	—
2. Resource Availability (R)	**.54****	1.00	—
3. Attitude (T)	**.38****	**.31****	1.00

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

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Table 9 reveals significant positive correlations among all three study dimensions, leading to the rejection of H_{06}. The strongest correlation was found between awareness and resource availability ($r = .54$, $p < .01$), indicating that teachers who are more aware of CBC principles tend to be in schools with relatively better resource availability. Moderate positive correlations were also found between awareness and attitude ($r = .38$, $p < .01$), and between resource availability and attitude ($r = .31$, $p < .01$). These findings suggest that the three preparedness dimensions are interrelated and mutually reinforcing: improvements in awareness are associated with stronger attitudinal orientation, while resource availability also positively relates to attitudinal readiness. These inter-correlations underscore the systemic and interconnected nature of teacher preparedness for CBC delivery.

Discussion

The finding that secondary school teachers in Kaduna State possess a low overall level of awareness of CBC principles (grand mean = 2.25) is alarming yet consistent with the findings of studies conducted in other African educational contexts. Momanyi and Rop (2020) identified inadequate teacher preparation as the foremost challenge confronting CBC implementation in Kenya's public primary schools, noting that many teachers had received little or no formal training on the philosophical foundations and practical methodologies of CBC. Similarly, a study on teacher preparedness for CBC implementation in Bomet County, Kenya, found that while a majority of teachers were familiar with the basics of CBC, significant deficiencies persisted in pedagogical knowledge, particularly regarding competency-aligned lesson planning and formative assessment (IJSSEI, 2025). The present study mirrors these findings in the Nigerian context, revealing that fewer than one in four teachers in Kaduna State secondary schools possessed adequate awareness of CBC frameworks. This low awareness level is attributable to insufficient in-service training, limited exposure to CBC-specific professional development, and systemic gaps in the cascade model of teacher sensitisation that has characterised Nigeria's curriculum reform dissemination strategy.

The finding is particularly concerning given the NCCE's (2020) directive that teacher education in Nigeria must transition towards a competency-based and practice-oriented model, equipping teachers with subject mastery, digital competence, classroom management skills, and capacity for holistic learner development. The disconnect between federal policy aspirations and the ground-level realities in Kaduna State secondary schools points to a significant implementation gap that demands urgent redress. In alignment with Bandura's (1997) self-efficacy theory, the low awareness levels documented in this study are likely to translate into reduced teacher self-efficacy for CBC delivery, thereby perpetuating a cycle of superficial or non-implementation of the curriculum.

The finding that instructional materials and resources for CBC delivery are grossly inadequate in Kaduna State secondary schools (grand mean = 2.01) is consistent with documented trends in the literature. Okwena et al. (2024) found that the level of teachers' preparedness for CBC in primary schools was predominantly rated as low, partly due to inadequate material resources. Isaboke et al. (2021) similarly found that 100% of teachers in their study confirmed their schools lacked adequate resources for CBC implementation, underscoring the structural underfunding that characterises public secondary education across much of sub-Saharan Africa. In Nigeria, Balogun (2020) documented systemic underfunding as one of the most persistent challenges in implementing CBC, noting that schools suffer from overcrowded classrooms, a lack of teaching and learning materials, and insufficient infrastructure.

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The particularly low score recorded for digital devices and internet access in the present study ($\bar{x}$ = 1.64 and 1.71, respectively) is especially significant, given that CBC in contemporary practice is deeply intertwined with ICT integration. Silas (2020) observed that teachers' lack of competence in ICT integration was directly attributable to insufficient digital infrastructure in schools, a finding that resonates strongly with the Kaduna State context. The significantly greater resource deprivation in rural schools compared to urban schools (Table 5) further highlights deep-seated spatial inequities in resource distribution within the state's secondary education system. If these structural disparities are left unaddressed, CBC delivery will remain a privilege of urban, better-resourced schools, while the majority of learners in rural communities are denied its benefits.

The finding that teachers in Kaduna State secondary schools hold generally positive attitudes towards CBC delivery (grand mean = 3.68) is an encouraging counterpoint to the low awareness and resource availability findings. This finding aligns with those of Ondimu (2018) and Oranga et al. (2020), who reported that a majority of teachers in Kenya held positive attitudes towards CBC, particularly regarding its potential to improve learning outcomes and its relevance to learners' real-life needs. In Uganda, Gladyce et al. (2025) similarly found that despite preparedness gaps, teachers expressed willingness to adopt CBC if adequate professional development and resources were provided. The high mean for item 5—teachers' belief that current resources are insufficient for CBC implementation ($\bar{x}$ = 3.91)—suggests that Kaduna State teachers are not apathetic about CBC; rather, they are acutely aware of the systemic barriers that constrain its implementation. This attitudinal readiness constitutes an important asset that curriculum planners can leverage in designing targeted CBC professional development programmes.

Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD) offers particularly powerful insights for understanding the relationship between attitudinal readiness and actual CBC competence. The positive attitudinal findings of this study indicate that Kaduna State teachers are positioned within a ZPD for CBC—they hold the motivational orientation required for development but lack the scaffolded professional support structures necessary to convert this disposition into demonstrated instructional competence. Specifically, teachers who expressed enthusiasm for training (item 4, $\bar{x}$ = 3.82) and confidence in their ability to deliver CBC if properly trained (item 7, $\bar{x}$ = 3.66) are essentially articulating the conditions of their ZPD: they can achieve CBC proficiency with guided, structured, and contextually responsive professional development. This implies that professional development programmes should not begin from deficit assumptions about teachers but should instead build on this existing motivational foundation, providing collaborative, scaffolded, and ZPD-sensitive training experiences that gradually extend teachers' CBC instructional repertoire. The failure to provide such scaffolded support risks allowing this positive attitudinal capital to erode over time in the face of persistent resource gaps and institutional inertia.

The absence of significant gender differences in teachers' attitudes (Table 6) suggests that the positive orientation towards CBC is uniformly distributed across male and female teachers, implying that gender-responsive policy interventions in professional development are not a primary concern in this context. However, the moderate score on the workload item ($\bar{x}$ = 3.47) indicates that concerns about the increased demands of CBC-aligned lesson planning, assessment, and individualised instruction remain a latent source of attitudinal ambivalence. This finding is consistent with Darling-Hammond et al. (2017), who argued that without adequate structural support, professional development, and workload management

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provisions, even positively disposed teachers may struggle to sustain CBC implementation over time.

The one-way ANOVA findings (Tables 7 and 8) confirming significant differences in both awareness and resource availability across the three senatorial districts reveal an important dimension of intra-state CBC readiness inequality that the binary urban-rural analysis alone could not fully capture. The concentration of relatively higher awareness and resource levels in Kaduna North—which hosts the state capital and a greater density of urban schools—reflects the well-documented centre-periphery pattern of educational resource distribution in Nigeria (Balogun, 2020). Importantly, Kaduna Central and Kaduna South showed no statistically significant differences from each other in either awareness or resource availability, suggesting a similar level of CBC underpreparedness across the two southern districts. This pattern calls for district-targeted policy interventions, particularly for Kaduna South and Kaduna Central, which require dedicated professional development infrastructure and resource allocation strategies. Fullan's (2015) argument for systemic coherence in educational reform is especially relevant here: sustainable CBC implementation in Kaduna State demands deliberate effort to equalise professional development access and instructional resource distribution across all three districts.

The significant positive inter-correlations among the three preparedness dimensions (Table 9) provide an important theoretical contribution to the understanding of teacher preparedness as a multidimensional, systemic construct rather than a set of independent attributes. The strong correlation between awareness and resource availability ($r = .54$) suggests that access to CBC information and access to instructional materials are co-constituted: schools that have made investments in CBC-relevant resources also tend to have more aware teachers, likely because the presence of materials serves as a channel for informal professional learning. The moderate correlations between both awareness ($r = .38$) and resource availability ($r = .31$) with attitude suggest that while attitudinal orientation is a relatively autonomous dimension—consistent with the finding that teachers hold positive attitudes even in low-awareness, low-resource environments—it is nonetheless partially shaped by the informational and material conditions of teaching. These inter-correlational findings support a systemic interpretation of teacher preparedness that is fully consonant with Bandura's (1997) self-efficacy model: awareness, resources, and attitude form a mutually reinforcing triad, and interventions targeting only one dimension are unlikely to produce sustainable improvements in CBC delivery.

Limitations of the Study

Notwithstanding its empirical contributions, this study is subject to several limitations that should be acknowledged when interpreting and applying its findings. First, the study employed a cross-sectional research design, which captures a single snapshot of teachers' preparedness at one point in time. Longitudinal studies would be necessary to track changes in preparedness levels as CBC reforms progress and professional development programmes are scaled. Second, data were collected exclusively through a self-report questionnaire, which is susceptible to social desirability bias: teachers may have reported more favourable attitudes or higher awareness levels than actually exist. Future studies should complement self-report data with classroom observations and performance assessments to provide a more objective measure of preparedness. Future research should include private school teachers and explore comparative perspectives across school ownership categories. Fifth, the study's findings are contextually bounded to Kaduna State and may not be directly generalisable to other states in

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Nigeria, though the trends identified likely resonate in comparable sub-Saharan African educational contexts.

Conclusion

This study has generated important empirical evidence on three critical dimensions of teachers' preparedness for CBC delivery in Kaduna State secondary schools: awareness, resource availability, and attitude. The study concludes that teachers in Kaduna State secondary schools are inadequately prepared for CBC delivery, primarily due to a low level of awareness of CBC principles and a critical shortfall in the instructional materials and resources necessary for competency-based instruction. These deficiencies are significantly more pronounced in rural schools than in urban schools and vary across senatorial districts, with Kaduna North exhibiting relatively higher—though still insufficient—levels of both awareness and resource availability compared to Kaduna Central and Kaduna South. The significant positive inter-correlations among the three preparedness dimensions indicate that awareness, resources, and attitude function as a mutually reinforcing system: weaknesses in any one dimension are likely to compound deficits in the others. In contrast, teachers demonstrated generally positive attitudes towards CBC delivery, indicating a reservoir of professional goodwill and reform commitment that, if properly harnessed through structured, ZPD-sensitive professional development and strategic resource investment, could serve as a powerful driver of successful CBC implementation. The findings underscore that teachers' preparedness for curriculum reform is not solely a matter of individual professional will but is fundamentally shaped by institutional, structural, and policy conditions. Without concerted investment in teacher training, resource provision, and contextually sensitive professional support, CBC in Kaduna State secondary schools risks remaining a policy aspiration rather than a classroom reality.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are advanced:

1. Intensive CBC-specific in-service training programmes should be designed and delivered by the Kaduna State Ministry of Education and KADSSEB, targeting all secondary school teachers with emphasis on CBC principles, learner-centred pedagogies, formative assessment, and ICT integration. These programmes should be regularly evaluated for effectiveness and updated to reflect evolving CBC knowledge.
2. The Kaduna State Government should substantially increase budgetary allocations for the procurement of digital devices, CBC-aligned textbooks, laboratory equipment, project-based learning materials, and internet infrastructure, with deliberate prioritisation of under-resourced rural schools in Kaduna Central and Kaduna South.
3. The Kaduna State Government should adopt and systematically upscale a cascade model of CBC sensitisation, leveraging school-based peer learning communities and subject-based professional development networks to ensure that CBC awareness reaches teachers in remote and rural school settings on a consistent and sustained basis.
4. The Kaduna State Government should pursue strategic partnerships with the private sector and development organisations, including development banks, non-governmental organisations, and international educational bodies, to supplement government funding for CBC resource provision and teacher professional development across the state.
5. Given the significant positive attitudinal orientation documented among teachers, Kaduna State's professional development agencies should design motivation-enhancing, Zone of Proximal Development (ZPD)-sensitive training programmes that build explicitly on teachers' existing willingness to adopt CBC while addressing the specific awareness and

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resource gaps identified across all three senatorial districts. Structured peer collaboration, mentoring, and action research components should be embedded in such programmes to sustain momentum and promote reflective practice.

6. Policy planners and educational administrators should treat the three senatorial districts as distinct educational sub-systems requiring tailored CBC support strategies. Kaduna South and Kaduna Central, which demonstrated significantly lower awareness and resource availability levels, should receive prioritised attention in the allocation of CBC professional development resources and infrastructure investment.

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