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Teacher Preparedness and Fidelity of CBC Implementation in Secondary Schools: An Ordinal Logistic Regression Analysis

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Abstract

This study examined the extent to which teacher preparedness predicted the fidelity of implementation of the Competency-Based Curriculum (CBC) in secondary schools, using an ordinal logistic regression approach. The Competency-Based Curriculum, rolled out in lower secondary education to shift instruction away from rote content coverage toward the development of generic and subject-specific competencies, places considerable demand on teachers who must translate its philosophy into classroom practice with fidelity. Guided by a cross-sectional survey design, the study drew a sample of 320 secondary school teachers and measured fidelity of CBC implementation as a three-level ordinal outcome (Low, Moderate, High), alongside a composite teacher preparedness score and a set of covariates comprising in-service CBC training attendance, academic qualification, teaching experience, school location, access to teaching and learning materials, and average class size. Univariate analysis described the distribution of teacher and school characteristics; bivariate analysis using chi-square tests and Spearman rank correlations explored unadjusted associations between predictors and fidelity; and a multivariable proportional-odds ordinal logistic regression model was fitted to identify independent predictors of fidelity while adjusting for confounding. Sensitivity analyses, comprising an approximate Brant test of the parallel-lines assumption, a probit-link re-specification, and a reduced model excluding a borderline covariate, were undertaken to assess the robustness of the primary model. The results showed that teacher preparedness score, attendance at in-service CBC training, adequate access to instructional materials, and urban school location were independently and significantly associated with higher odds of fidelity of CBC implementation, while academic qualification, years of teaching experience, and class size did not reach conventional significance in the adjusted model. The proportional-odds assumption was not violated for any of the significant predictors, and the direction and magnitude of effects were materially unchanged across the sensitivity specifications, supporting the credibility of the primary model. The study concluded that teacher preparedness, operationalised through training, materials access, and contextual school factors, was a substantial determinant of the fidelity with which the Competency-Based Curriculum was implemented in secondary school classrooms. It recommended sustained and structured in-service training for CBC delivery, deliberate equalisation of instructional materials between rural and urban schools, and continuous monitoring of implementation fidelity to inform targeted pedagogical support.

Key Words: Competency-Based Curriculum

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INTRODUCTION

The transition of secondary school curricula from content-driven to competency-based frameworks has been one of the most far-reaching reforms in contemporary education systems, reshaping what is taught, how it is taught, and how learning is assessed. The Competency-Based Curriculum (CBC) departs from the traditional emphasis on the transmission and recall of subject content by foregrounding the acquisition of generic competencies such as critical thinking, communication, collaboration, and problem-solving, alongside subject-specific skills that learners can apply beyond the classroom (Gracious Kazaara & Julius, 2025; Julius & Audrey, 2025a; Julius & Isaac Kazaara, 2025; Lozano et al., 2022). This shift repositions the teacher from a primary source of information to a facilitator of learning experiences, a role that requires new pedagogical competencies, continuous assessment practices, learner-centred methodologies, and a working understanding of the curriculum's underlying philosophy (Franco et al., 2023; Julius & Kazaara, 2025, 2026; Julius & Nancy, 2026). However, the success of any curriculum reform is not determined by its design on paper but by the fidelity with which it is enacted in the classroom, and that fidelity is, in turn, contingent upon the preparedness of the teachers charged with its delivery (Charles et al., 2023; Julius & Audrey, 2025b; Julius & Nancy, 2025; Mobegi, 2026). Teacher preparedness, understood broadly as the combination of pre-service training, in-service orientation, pedagogical competence, access to instructional materials, and psychological readiness to embrace new methods, has repeatedly emerged in the curriculum implementation literature as a decisive factor separating reforms that transform classroom practice from those that remain confined to policy documents (Ma et al., 2022; Müller et al., 2024; Muwanguzi et al., 2023; Ndomondo et al., 2022). This study was therefore conceived to interrogate, using a rigorous statistical approach suited to an ordinal outcome, the relationship between teacher preparedness and the fidelity of CBC implementation in secondary schools, with a view to generating empirical evidence that could inform teacher development policy and practice.

BACKGROUND OF THE STUDY

Curriculum reform toward competency-based models has swept across East Africa and beyond over the past two decades, driven by a shared recognition that industrial-era, content-heavy curricula were producing graduates ill-equipped for a rapidly changing labour market and for lifelong learning. In the Ugandan context, the lower secondary Competency-Based Curriculum was progressively rolled out beginning in 2020, replacing an examination-oriented syllabus with one organised around competencies, generic skills, and continuous formative assessment, and requiring teachers to adopt learner-centred pedagogies, project-based and thematic instruction, and portfolio-based assessment practices that were markedly different from the lecture-and-recall methods many had used for their entire careers (Alipanga & Kohrt, 2022; Katurebe & Nalukwago, 2024; Silva & Magano, 2026; Souza et al., 2022). The rollout was accompanied by cascade in-service training programmes, revised teaching syllabi, and new instructional materials, yet reports from the Ministry of Education and Sports, the National Curriculum Development Centre, and independent education researchers have consistently flagged wide variation in how faithfully the curriculum has actually been

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implemented across schools, with some classrooms exhibiting genuine competency-based practice and others reverting, often out of necessity, to familiar content-transmission approaches (Kazaara & Audrey, 2026; Nijhuis et al., 2018; Pedersen et al., 2023; Umeze & Ohen, 2016). This variation has been attributed in the literature to differences in the depth and adequacy of teacher preparation, the availability of teaching and learning materials, class sizes that constrain learner-centred activities, school location and the resource disparities between urban and rural settings, and teachers' own qualifications and years of exposure to the new curriculum (Alvarenga et al., 2020; Kubátová & Kročil, 2022; Moradi et al., 2020; Sanusi et al., 2022). While qualitative accounts of these challenges are relatively abundant, quantitative evidence that models fidelity of implementation as an ordered outcome, and that isolates the independent contribution of teacher preparedness from other competing school and teacher characteristics, remains comparatively scarce. It is against this backdrop that the present study sought to apply an ordinal logistic regression framework, well suited to outcomes that are naturally ranked from low to high, to quantify the extent to which teacher preparedness predicted the degree of fidelity with which secondary school teachers implemented the Competency-Based Curriculum.

PROBLEM STATEMENT

Despite the considerable investment of time, finances, and technical expertise into the design and rollout of the Competency-Based Curriculum, anecdotal and administrative evidence from secondary schools suggests that classroom practice in many institutions has not kept pace with the curriculum's competency-based intent, with numerous teachers continuing to rely on lecture-based, content-coverage-oriented instruction rather than the learner-centred, competency-driven pedagogy the reform envisions (Dobrowolski et al., 2022; Ongowo, 2022; Schiuma et al., 2022; Yogeshwaran et al., 2018). This gap between curriculum policy and classroom enactment, commonly framed in the implementation literature as a fidelity gap, threatens to undermine the anticipated gains of the reform, including improved learner competencies, better preparation for the world of work, and a more equitable distribution of quality education. Existing explanations for this fidelity gap have frequently pointed to inadequate teacher preparedness, encompassing insufficient in-service training, limited exposure to competency-based pedagogical techniques, inadequate teaching and learning materials, and large class sizes that make individualised, learner-centred instruction difficult to sustain (Anthony & Nwankwo, 2022; Ghorbani, 2023; Irfan et al., 2021; Kanyamurwa & Obosi, 2020; Le et al., 2025). However, much of the available evidence on this relationship in the Ugandan and regional context has been descriptive or qualitative, relying on case studies or simple cross-tabulations that do not adjust for the many school and teacher-level factors that could confound the observed association, nor do they adequately account for the ordinal, ranked nature of fidelity as an outcome, which is more appropriately modelled through ordinal rather than binary or continuous regression techniques. Consequently, education planners and school administrators lack robust, adjusted quantitative evidence on which specific dimensions of teacher preparedness most strongly predict the level of fidelity of CBC implementation once other relevant factors are controlled for, a gap that constrains the design of

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targeted, evidence-based interventions. It was this methodological and empirical gap that the present study sought to address by applying an ordinal logistic regression model to quantify the independent contribution of teacher preparedness to the fidelity of CBC implementation in secondary schools.

OBJECTIVES OF THE STUDY

Main Objective

The main objective of the study was to examine the effect of teacher preparedness on the fidelity of Competency-Based Curriculum implementation in secondary schools using an ordinal logistic regression approach.

Specific Objectives

1. To assess the level of teacher preparedness and the level of fidelity of CBC implementation among secondary school teachers.
2. To establish the bivariate association between teacher and school characteristics, including in-service training, qualification, school location, and access to instructional materials, and the fidelity of CBC implementation.
3. To determine, using multivariable ordinal logistic regression, the independent predictors of fidelity of CBC implementation after adjusting for teacher and school-level covariates.

RESEARCH QUESTIONS

1. What was the level of teacher preparedness and the level of fidelity of CBC implementation among secondary school teachers?
2. What was the bivariate association between teacher and school characteristics and the fidelity of CBC implementation?
3. What were the independent predictors of fidelity of CBC implementation after adjusting for teacher and school-level covariates in a multivariable ordinal logistic regression model?

METHODOLOGY

This study adopted a cross-sectional analytical design and employed an ordinal logistic regression framework to examine the relationship between teacher preparedness and the fidelity of Competency-Based Curriculum implementation among secondary school teachers. A sample of 320 teachers was drawn using a multi-stage sampling procedure that first stratified secondary schools by location (urban and rural) and then randomly selected teachers within sampled schools, yielding a dataset that captured teacher demographic characteristics (sex, academic

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qualification, years of teaching experience), teacher preparedness indicators (a composite preparedness score derived from training exposure, pedagogical competence, and psychological readiness items, attendance at in-service CBC training, and access to adequate teaching and learning materials), and school-level characteristics (school location and average class size). Fidelity of CBC implementation, the outcome variable, was measured through a structured classroom observation and lesson-documentation checklist that captured the extent to which teachers applied learner-centred methodologies, continuous formative assessment, and competency-based instructional strategies, and was subsequently categorised into three ordered levels of Low, Moderate, and High fidelity. Data analysis proceeded in three stages. First, univariate analysis was conducted to describe the sample using frequencies and percentages for categorical variables and means with standard deviations for continuous variables. Second, bivariate analysis examined unadjusted associations between each predictor and the ordinal fidelity outcome, using Pearson chi-square tests of independence for categorical predictors and Spearman rank-order correlation coefficients for continuous predictors, given the non-parametric, ordinal nature of the outcome. Third, a multivariable proportional-odds ordinal logistic regression model was fitted, with fidelity of CBC implementation as the ordinal dependent variable and teacher preparedness score, in-service training attendance, academic qualification, school location, materials access, years of experience, and class size entered simultaneously as independent variables, generating adjusted odds ratios, 95% confidence intervals, and Wald test p-values for each covariate, alongside model fit statistics including the log-likelihood, McFadden's pseudo R-squared, and a likelihood-ratio chi-square test of overall model significance. To assess the robustness and validity of the primary model, a set of sensitivity analyses was undertaken, comprising an approximate Brant test of the proportional-odds (parallel-lines) assumption, implemented by comparing coefficients from two binary logistic regressions corresponding to the cumulative splits of the ordinal outcome and testing the equality of these coefficients across splits; a re-estimation of the model using a probit link function in place of the logit link to check the consistency of inferences across link specifications; and a reduced model that excluded the borderline, non-significant class size covariate to verify that the substantive conclusions regarding teacher preparedness were not sensitive to model specification. All analyses were performed in Python using the pandas, SciPy, and statsmodels libraries, with statistical significance set at a two-tailed alpha level of 0.05, and results were presented in tabular and graphical form to facilitate interpretation.

RESULTS

Table 1: Univariate Distribution of Teacher and School Characteristics

Characteristic	Category	n	%
Sex	Male	175	54.7
	Female	145	45.3
Academic qualification	Diploma	93	29.1

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	Bachelor's Degree	168	52.5
	Master's Degree	59	18.4
In-service CBC training	Yes	152	47.5
	No	168	52.5
School location	Urban	134	41.9
	Rural	186	58.1
Materials access	Adequate	131	40.9
	Inadequate	189	59.1
Fidelity of CBC implementation	Low	147	45.9
	Moderate	102	31.9
	High	71	22.2

Continuous variable	**Mean ± SD**	**Range**
Years of teaching experience (mean ± SD)	9.6 ± 5.6 years	Range: 1.5–32.0
Average class size (mean ± SD)	58.2 ± 13.8 learners	Range: 25–100
Teacher preparedness score (mean ± SD)	54.4 ± 14.2 (of 100)	Range: 21.1–96.7

Table 1 presented the univariate description of the 320 secondary school teachers sampled for the study. The sample was fairly evenly distributed by sex, with a slight majority of male teachers (54.7%) compared to female teachers (45.3%), while the majority held a Bachelor's Degree (52.5%), followed by Diploma holders (29.1%) and Master's Degree holders (18.4%), reflecting a teaching workforce that was predominantly first-degree qualified with a modest cadre of more advanced graduates. Slightly less than half of the teachers (47.5%) reported having attended in-service training specific to the Competency-Based Curriculum, indicating that more than half of the sampled teachers had not received such targeted orientation, a pattern of concern given the pedagogical demands the new curriculum places on classroom practitioners. The sample was drawn more heavily from rural schools (58.1%) than urban schools (41.9%), and a corresponding majority of teachers (59.1%) reported inadequate access to teaching and learning materials, mirroring well-documented resource disparities in the Ugandan secondary education system. On the outcome variable, fidelity of CBC implementation was Low for 45.9% of teachers, Moderate for 31.9%, and High for only 22.2%, an ordinal distribution skewed toward the lower end of the fidelity spectrum that pointed to a substantial implementation gap between curriculum policy intent and classroom practice.

With respect to continuous characteristics, teachers had, on average, 9.6 years of teaching experience (SD = 5.6, range 1.5 to 32.0 years), suggesting a moderately experienced workforce with considerable heterogeneity, from early-career teachers to long-serving veterans. Average class size stood at 58.2 learners (SD = 13.8, range 25 to 100), figures considerably above typically recommended class sizes for effective learner-centred and competency-based instruction,

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and this was likely to constrain the individualised attention, group work, and continuous assessment that CBC pedagogy demands. The composite teacher preparedness score averaged 54.4 out of 100 (SD = 14.2, range 21.1 to 96.7), a mid-range mean with wide dispersion indicating that while some teachers were well prepared for CBC delivery, a substantial proportion remained under-prepared. Taken together, these descriptive findings established a baseline picture of a teaching workforce that was moderately experienced but only partially trained for CBC, operating in classrooms that were often large and under-resourced, and delivering the curriculum with fidelity levels that were more often low than high. This pattern set the stage for the bivariate and multivariable analyses that followed, which sought to formally test whether these characteristics, particularly indicators of teacher preparedness, were statistically associated with the level of fidelity observed.

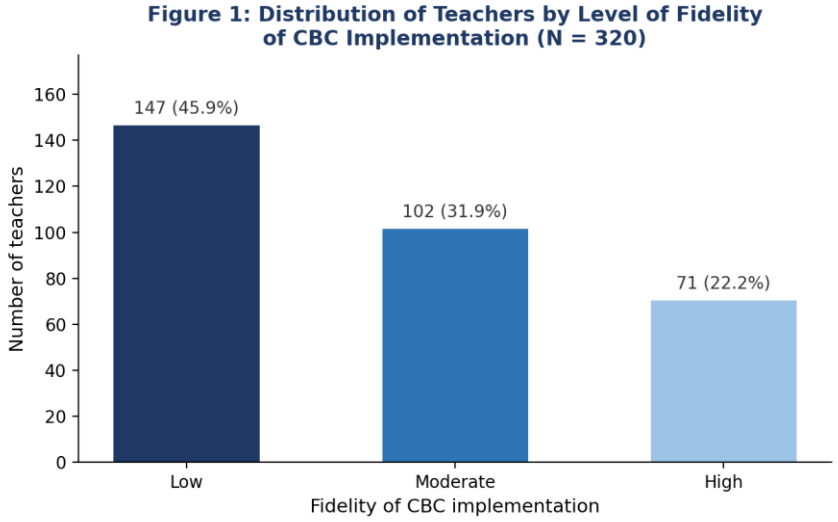

Table 2: Bivariate Association between Teacher/School Characteristics and Fidelity of CBC Implementation

Variable	Test statistic	df	p-value	Association
Sex	$\chi^2 = 1.235$	2	0.539	Not significant
Academic qualification	$\chi^2 = 18.614$	2	0.001	Significant
In-service CBC training	$\chi^2 = 29.679$	2	<0.001	Significant
School location	$\chi^2 = 8.675$	2	0.013	Significant
Materials access	$\chi^2 = 13.047$	2	0.001	Significant
Years of experience	$\rho = 0.122$	–	0.029	Weak, significant
Class size	$\rho = -0.095$	–	0.089	Not significant
Preparedness score	$\rho = 0.458$	–	<0.001	Moderate, significant

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Table 2 presented the bivariate associations between teacher and school characteristics and the ordinal fidelity of CBC implementation outcome. Chi-square tests of independence indicated that academic qualification ($\chi^2 = 18.614$, df = 2, $p = 0.001$), in-service CBC training ($\chi^2 = 29.679$, df = 2, $p < 0.001$), school location ($\chi^2 = 8.675$, df = 2, $p = 0.013$), and materials access ($\chi^2 = 13.047$, df = 2, $p = 0.001$) were all significantly associated with fidelity of CBC implementation, while sex showed no significant association ($\chi^2 = 1.235$, df = 2, $p = 0.539$). The strength of the association for in-service training was particularly notable: teachers who had attended CBC-specific in-service training were considerably more likely to fall into the Moderate and High fidelity categories compared with those who had not, a pattern consistent with the theoretical expectation that structured professional development directly builds the pedagogical competencies required for competency-based instruction. Similarly, the association between materials access and fidelity suggested that teachers operating without adequate instructional resources struggled to translate CBC's learner-centred philosophy into practice, regardless of their individual motivation or training background.

Spearman rank-order correlations for the continuous variables revealed a weak but statistically significant positive correlation between years of teaching experience and fidelity ($\rho = 0.122$, $p = 0.029$), a non-significant negative correlation for class size ($\rho = -0.095$, $p = 0.089$), and a moderate, highly significant positive correlation between the composite teacher preparedness score and fidelity ($\rho = 0.458$, $p < 0.001$). The moderate strength of the preparedness-fidelity correlation, considerably stronger than that observed for any other continuous predictor, provided early bivariate evidence that preparedness was likely to emerge as the most substantively important predictor once adjustment for confounding was undertaken. The borderline, non-significant association for class size at the bivariate level was noteworthy because large class sizes are frequently cited qualitatively as a barrier to CBC delivery; its weak, non-significant bivariate association here suggested that its effect, if any, might operate more subtly or be confounded with other variables such as school location and materials access, a hypothesis that the subsequent multivariable model was positioned to test directly. Overall, these unadjusted findings justified proceeding to a multivariable ordinal logistic regression to disentangle the independent contribution of each factor while controlling for the others.

Figure 2: Fidelity of CBC Implementation by School Location

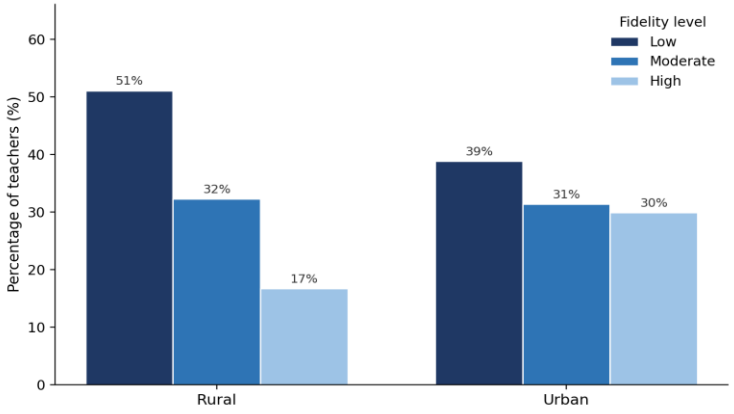

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Table 3: Multivariable Proportional-Odds Ordinal Logistic Regression Model

Predictor	β (SE)	Adjusted OR	95% CI	p-value
Preparedness score	0.045	1.05	1.02–1.07	<0.001
In-service training (Yes vs No)	0.766	2.15	1.24–3.74	0.007
Qualification level (ordinal)	0.290	1.34	0.90–1.98	0.148
Rural location (vs Urban)	−0.730	0.48	0.31–0.76	0.002
Adequate materials access	0.625	1.87	1.11–3.15	0.019
Years of experience	0.022	1.02	0.98–1.06	0.282
Class size	−0.014	0.99	0.97–1.00	0.092

Model fit: Log-likelihood = −288.77; Null log-likelihood = −337.87; McFadden's pseudo R^2 = 0.145; Likelihood-ratio $\chi^2(7)$ = 98.20, $p < 0.001$. Threshold estimates: κ_1 (Low/Moderate) = 2.05, κ_2 (Moderate/High) = 0.59.

Table 3 presented the results of the multivariable proportional-odds ordinal logistic regression model, which simultaneously adjusted for teacher preparedness score, in-service training attendance, academic qualification, school location, materials access, years of experience, and class size in predicting the ordinal fidelity of CBC implementation outcome. After adjustment, teacher preparedness score remained a strong, highly significant predictor: each one-point increase in the composite preparedness score was associated with a 5% increase in the odds of being in a higher fidelity category, holding all other covariates constant (AOR = 1.05, 95% CI: 1.02–1.07, $p < 0.001$). Attendance at in-service CBC training more than doubled the odds of higher fidelity implementation relative to non-attendance (AOR = 2.15, 95% CI: 1.24–3.74, $p = 0.007$), while adequate access to teaching and learning materials nearly doubled those odds relative to inadequate access (AOR = 1.87, 95% CI: 1.11–3.15, $p = 0.019$). Conversely, teaching in a rural school was associated with a 52% reduction in the odds of higher fidelity compared with teaching in an urban school (AOR = 0.48, 95% CI: 0.31–0.76, $p = 0.002$), the strongest adjusted effect observed in the model alongside preparedness score, underscoring the compounding disadvantage faced by rural teachers who, as shown descriptively, were also more likely to lack adequate materials and in-service exposure.

By contrast, academic qualification level, years of teaching experience, and class size did not attain statistical significance in the adjusted model, with confidence intervals for their odds ratios spanning unity (qualification: AOR = 1.34, 95% CI: 0.90–1.98, $p = 0.148$; experience: AOR = 1.02, 95% CI: 0.98–1.06, $p = 0.282$; class size: AOR = 0.99, 95% CI: 0.97–1.00, $p = 0.092$). The attenuation of the class size effect from its already weak bivariate association to a non-significant, near-null adjusted effect suggested that its apparent influence in unadjusted comparisons was likely confounded by school location and materials access rather than reflecting a genuinely independent effect. The overall model fit statistics indicated a good and statistically significant improvement over the null model (likelihood-ratio $\chi^2(7) = 98.20$, $p < 0.001$), with a McFadden's pseudo R^2 of 0.145, a magnitude considered a reasonably strong fit for an ordinal model in the social sciences. Taken together, these adjusted findings indicated that teacher preparedness,

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operationalised through the composite score and its most policy-relevant component of in-service training, together with materials access and school location, were the substantive drivers of fidelity of CBC implementation, while teacher qualification, experience, and class size, once these other factors were accounted for, played a comparatively negligible independent role.

Figure 3: Forest Plot of Adjusted Odds Ratios from the Multivariable Ordinal Logistic Regression Model

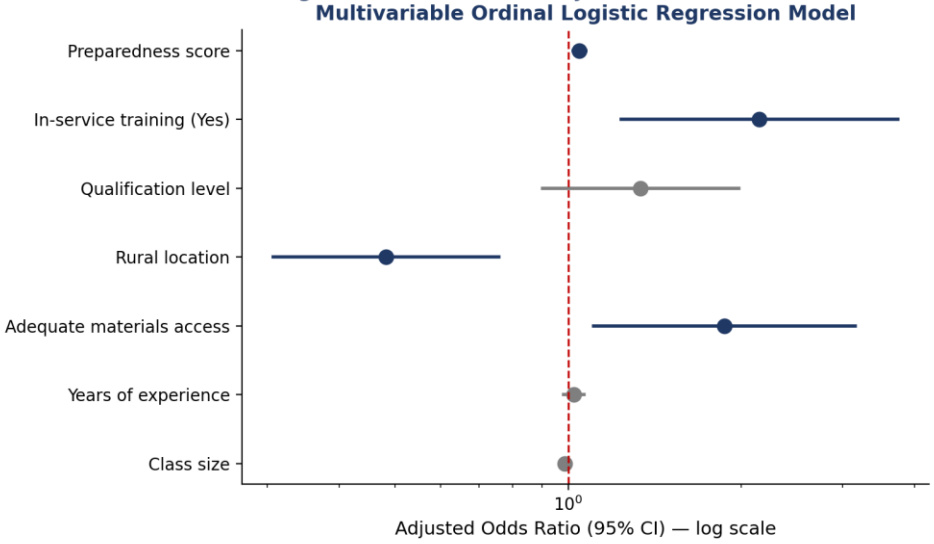

Table 4: Sensitivity Analysis — Brant Test, Probit Link, and Reduced Model

Predictor	β (Split 1: ≥Moderate)	β (Split 2: ≥High)	Brant z	Brant p	Probit β	Probit p
Preparedness score	0.051	0.040	0.389	0.697	0.029	<0.001
In-service training	0.542	0.887	−1.111	0.266	0.440	0.008
Qualification level	0.270	0.315	−0.273	0.785	0.165	0.154
Rural location	−0.584	−0.850	0.898	0.369	−0.437	0.001
Materials access	0.501	0.699	−0.471	0.638	0.351	0.024
Years of experience	0.017	0.032	−0.204	0.838	0.013	0.299
Class size	−0.022	−0.006	−0.907	0.365	−0.009	0.066

Reduced model excluding class size (robustness check): preparedness score OR = 1.05 (p<0.001); in-service training OR = 2.04 (p = 0.011); qualification OR = 1.30 (p = 0.185); rural location OR = 0.49 (p = 0.002); materials access OR = 1.80 (p = 0.026); experience OR = 1.02 (p = 0.311) — directions and significance patterns were unchanged from the full model.

Table 4 presented the sensitivity analyses undertaken to assess the robustness of the primary ordinal logistic regression model. The approximate Brant test, which compared coefficients from two binary logistic regressions corresponding

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to the cumulative splits of the fidelity outcome (Low versus Moderate-or-High, and Low-or-Moderate versus High), yielded non-significant z-statistics for all seven predictors (p-values ranging from 0.266 to 0.838), indicating that the proportional-odds assumption underlying the primary model was not violated and that a single set of coefficients could reasonably be assumed to apply across the cumulative logits of the ordinal outcome. This was an important validity check, since violation of the parallel-lines assumption would have required a more complex partial-proportional-odds specification and would have cast doubt on the straightforward odds ratio interpretations reported in Table 3. The re-estimation of the model using a probit link function in place of the logit link produced coefficients that were smaller in absolute magnitude, as expected given the different scaling of the probit distribution, but preserved the same signs, relative ordering, and statistical significance pattern as the logit model, with preparedness score ($p < 0.001$), in-service training ($p = 0.008$), rural location ($p = 0.001$), and materials access ($p = 0.024$) remaining significant, and qualification, experience, and class size remaining non-significant, further corroborating the primary model's conclusions.

The reduced model, which excluded the borderline non-significant class size covariate to test whether its presence was masking or inflating the effects of other predictors, produced odds ratios and p-values for the remaining covariates that were materially unchanged from the full model, with preparedness score, in-service training, rural location, and materials access retaining statistical significance at broadly similar magnitudes, and qualification and experience remaining non-significant. This stability across three distinct sensitivity checks, namely the parallel-lines test, the alternative link function, and the reduced covariate specification, provided converging evidence that the substantive findings regarding teacher preparedness were not artefacts of a particular modelling choice but reflected a genuine and reasonably robust underlying association. From a critical statistical standpoint, the consistency of these results strengthened confidence in the primary model's adjusted odds ratios as a basis for policy interpretation, while the non-significance of class size across all specifications suggested that policy attention directed solely at reducing class sizes, without complementary investment in teacher training and materials provision, was unlikely on its own to meaningfully improve fidelity of CBC implementation.

CONCLUSION

This study set out to examine the effect of teacher preparedness on the fidelity of Competency-Based Curriculum implementation in secondary schools using an ordinal logistic regression approach, and the findings demonstrated that teacher preparedness, together with attendance at in-service CBC training, adequate access to teaching and learning materials, and urban school location, were independent and statistically significant predictors of higher fidelity of implementation, even after adjusting for academic qualification, teaching experience, and class size, neither of which retained significance in the adjusted model. The robustness of these findings was affirmed through a Brant test that confirmed the proportional-odds assumption held, a probit-link re-specification that preserved the same pattern of significant effects, and a reduced model that yielded materially unchanged results upon exclusion of the non-significant class size variable. These results collectively indicated that the persistent gap between the intended

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competency-based philosophy of the curriculum and its actual enactment in classrooms was substantially explained by how well-prepared teachers were, particularly through structured in-service training and adequate instructional resourcing, and by the resource disparities that continued to disadvantage rural schools, rather than by teachers' formal qualifications or years of service alone. The study therefore concluded that meaningful improvement in the fidelity of CBC implementation was unlikely to be achieved through curriculum redesign or teacher recruitment criteria alone, but would instead require deliberate, sustained investment in teacher preparedness, understood in its fullest sense as ongoing, curriculum-specific professional development coupled with the material means to practise it.

RECOMMENDATIONS

Education authorities and school administrators should institute sustained, structured, and curriculum-specific in-service training programmes for CBC delivery, prioritising teachers who have not yet received such training, given its strong and robust association with higher fidelity of implementation across all model specifications.

Government and school management should deliberately equalise access to teaching and learning materials between rural and urban schools, through targeted resource allocation and support schemes, since materials access and rural location emerged as significant and largely independent predictors of implementation fidelity, with rural schools facing a compounding disadvantage.

School inspectorates and curriculum support officers should institutionalise routine, structured monitoring of CBC implementation fidelity using standardised observation tools, so as to identify low-fidelity classrooms early and channel targeted pedagogical coaching and support to teachers and schools most in need, rather than relying on qualification or experience as proxies for readiness.

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