

Teachers' Professional Development Programs and Implementation of the Competence-Based Curriculum in Uganda: A Case of Government Schools in Ibanda Municipality, Ibanda District

Kyomuhendo Janet¹, Dr. Barigye Enock²

Directorate of Graduate Studies and Training Ibanda University, P.O Box 35 Ibanda, Uganda

DOI: <https://doi.org/10.47772/IJRISS.2026.100400342>

Received: 02 February 2026; Accepted: 08 February 2026; Published: 08 May 2026

ABSTRACT

This study examined the effect of in-service training on the implementation of the Competence-Based Curriculum (CBC) in government secondary schools in Ibanda Municipality, Ibanda District, Uganda. Using a descriptive research design with a mixed-methods approach, data were collected from 81 respondents, including teachers, head teachers, the Municipal Education Officer (MEO), and Inspectors of Schools. Quantitative data were obtained through questionnaires and analyzed using descriptive and inferential statistics, while qualitative data were collected through semi-structured interviews and analyzed thematically. The findings revealed that in-service training positively influences teachers' preparedness, instructional practices, and competence in implementing CBC. However, challenges such as limited training frequency, inadequate follow-up support, and resource constraints affected the overall effectiveness. The study concluded that in-service training is critical to enhancing CBC implementation and recommended targeted capacity-building programs, regular mentoring, and provision of adequate teaching resources. Areas for future research include examining the role of peer coaching, continuous professional development, and ICT integration in improving CBC implementation outcomes.

Keywords: Teachers' Professional Development, In-Service Training, Competence-Based Curriculum, Secondary Schools, Ibanda Municipality

INTRODUCTION

The implementation of the Competence-Based Curriculum (CBC) in Uganda requires that teachers possess the necessary knowledge, skills, and pedagogical competencies to deliver learner-centered education effectively. Teachers' Professional Development Programs (TPDPs), particularly in-service training, mentorship, and coaching, are essential for equipping educators with these competencies (Creswell, 2014). In-service training provides teachers with opportunities to update their content knowledge, adopt innovative teaching strategies, and align instructional practices with CBC objectives. Despite policy support, studies in Uganda have shown that gaps in professional development and inadequate teacher preparedness continue to challenge effective CBC implementation (Cohen, Manion, & Morrison, 2018). This study investigates how in-service training influences CBC implementation in government secondary schools in Ibanda Municipality.

Purpose of the Study

To examine the effect of in-service training on the implementation of the Competence-Based Curriculum in government secondary schools in Ibanda Municipality, Ibanda District.

Literature Review

Teacher professional development is widely recognized as a cornerstone for curriculum implementation (Amin, 2005). Studies indicate that in-service training enhances teachers' instructional competence, confidence, and ability to engage students in active learning (Kumar, 2011). Effective TPDPs, including workshops, coaching, and mentoring, have been associated with improved student outcomes and successful curriculum adoption (Patton, 2002). In Uganda, research has highlighted that limited training frequency, lack of follow-up, and

insufficient instructional materials hinder the effective implementation of CBC, necessitating targeted interventions to build teacher capacity (Creswell & Creswell, 2018).

METHODOLOGY

Research Design

A descriptive research design with a mixed-methods approach was adopted to explore how in-service training influences CBC implementation. The approach enabled a comprehensive understanding through both quantitative data from teachers and qualitative insights from administrative officials (Creswell, 2014).

Study Population

The study population consisted of 98 individuals, including head teachers from six government secondary schools, the Municipal Education Officer (MEO), the Inspector of Schools, and teachers currently employed in the selected schools.

Sample Size

Using Krejcie and Morgan (1970) table, a sample of 81 respondents was selected: 73 teachers, 6 head teachers, 1 MEO, and 1 Inspector of Schools (Table 1).

Table 1: Study Population, Sample Size, and Sampling Technique

Category	Population Size	Sample Size	Sampling Technique
Head teachers	6	6	Purposive
Municipal Education Officer (MEO)	1	1	Purposive
Inspector of Schools	1	1	Purposive
Teachers	90	73	Simple Random
Total	98	81	-

Sampling Techniques

Purposive sampling was used for key informants (head teachers, MEO, Inspector) due to their expertise in curriculum supervision. Simple random sampling was applied to select teachers to ensure equal representation.

Data Collection Methods

Quantitative data were collected using structured questionnaires administered to teachers, while qualitative data were obtained through semi-structured interviews with head teachers, the MEO, and Inspectors of Schools.

Data Collection Instruments

Questionnaires: Measured teachers' engagement in in-service training and perceptions of CBC implementation.

Interview Guides: Explored administrative perspectives on training effectiveness, challenges, and support mechanisms.

Validity and Reliability

Content validity was ensured through expert review (CVI = 0.89), and reliability was tested using the test-retest method ($r = 0.83$), indicating high consistency.

Data Analysis

Quantitative: Analyzed using SPSS 20.0; descriptive statistics and Pearson correlation examined relationships between TPDPs and CBC implementation.

Qualitative: Thematic analysis was applied to interview data, capturing insights into training effectiveness, instructional strategies, and challenges.

Ethical Considerations

Ethical approval was obtained from IUIREC. Informed consent, confidentiality, voluntary participation, and protection from harm were strictly observed.

RESULTS

Response Rate

All 81 sampled respondents participated, yielding a 100% response rate, ensuring robust data coverage.

In-Service Training and Implementation of the Competence-Based Curriculum

Table 2: Effect of In-Service Training on CBC Implementation (n = 73)

Statement	SD f(%)	D f(%)	N f(%)	A f(%)	SA f(%)	Mean	Std. Dev
I have attended in-service training programs on CBC.	2(2.7)	5(6.8)	7(9.6)	21(28.8)	38(52.1)	4.20	0.99
In-service training has improved my ability to implement CBC effectively.	1(1.4)	2(2.7)	5(6.8)	23(31.5)	42(57.5)	4.41	0.82
The training I received was relevant to my teaching subject(s).	2(2.7)	3(4.1)	7(9.6)	25(34.2)	36(49.3)	4.24	0.93
In-service training provided practical strategies for assessing learners' competencies.	2(2.7)	3(4.1)	6(8.2)	22(30.1)	40(54.8)	4.30	0.94
Lack of regular in-service training limits effective CBC implementation.	1(1.4)	3(4.1)	5(6.8)	20(27.4)	44(60.3)	4.41	0.87

Source: Field Data (2025)

Table 2: presents responses on Effect of In-Service Training on CBC Implementation. The responses on attending in-service training programs on the Competence-Based Curriculum (CBC) indicate that 2(2.7%) of respondents strongly disagreed, 5(6.8%) disagreed, 7(9.6%) were neutral, 21(28.8%) agreed, and 38(52.1%) strongly agreed. The mean score was 4.20 with a standard deviation of 0.99, showing that the majority of teachers have participated in in-service training and there is general agreement on its occurrence.

The responses on whether in-service training has improved teachers' ability to implement CBC effectively show that 1(1.4%) strongly disagreed, 2(2.7%) disagreed, 5(6.8%) were neutral, 23(31.5%) agreed, and 42(57.5%) strongly agreed. The mean was 4.41 and the standard deviation was 0.82, indicating that teachers generally agreed that in-service training significantly enhanced their competence in implementing CBC.

The responses on the relevance of in-service training to teachers' teaching subjects indicate that 2(2.7%) strongly disagreed, 3(4.1%) disagreed, 7(9.6%) were neutral, 25(34.2%) agreed, and 36(49.3%) strongly agreed. The mean score was 4.24 with a standard deviation of 0.93, suggesting that most teachers found the training content applicable to their subjects.

The responses on whether in-service training provided practical strategies for assessing learners' competencies show that 2(2.7%) strongly disagreed, 3(4.1%) disagreed, 6(8.2%) were neutral, 22(30.1%) agreed, and 40(54.8%) strongly agreed. The mean score was 4.30 with a standard deviation of 0.94, indicating strong agreement that in-service training equips teachers with practical assessment strategies.

The responses on whether lack of regular in-service training limits effective CBC implementation reveal that 1(1.4%) strongly disagreed, 3(4.1%) disagreed, 5(6.8%) were neutral, 20(27.4%) agreed, and 44(60.3%) strongly agreed. The mean was 4.41 with a standard deviation of 0.87, demonstrating that teachers perceive the absence of regular in-service training as a significant barrier to effective CBC implementation.

During interviews, respondents indicated that most teachers had participated in in-service training programs related to the Competence-Based Curriculum (CBC). The trainings included workshops on CBC pedagogy, competency-based lesson planning, assessment strategies, and learner-centered approaches. Respondents noted that such training enhanced teachers' competence in curriculum interpretation, lesson planning, and assessing learner competencies. However, challenges such as irregular training schedules, limited funding, and unequal access were reported.

HT01 stated: *“Our teachers attended workshops organized by the Ministry of Education where they learned how to design lessons and assessments based on competencies rather than content.”*

HT03 added: *“Some teachers miss training due to limited slots or lack of funding, which affects uniformity in CBC implementation across departments.”*

MEO01 observed: *“Regular in-service training is crucial; without it, many teachers struggle to adopt CBC practices effectively.”*

INS01 emphasized: *“The lack of consistent training programs across schools results in varying levels of teacher competence in CBC.”*

Both quantitative and qualitative study findings indicated that in-service training significantly improved teachers' capacity to implement the Competence-Based Curriculum (CBC) in government secondary schools in Ibanda Municipality. Quantitative results showed high levels of teacher participation, enhanced competence in curriculum interpretation, lesson planning, and competency-based assessment, while qualitative interviews confirmed that workshops and professional development sessions provided practical strategies and strengthened teacher confidence. However, both data sources highlighted challenges such as irregular training schedules, limited funding, and unequal access, which constrained uniform implementation across schools.

Correlation Analysis

Table 3: Correlation Between In-Service Training and CBC Implementation (N = 73)

CBC Implementation Indicators	Pearson Correlation (r)	Sig. (2-tailed)	N
Effective Curriculum Interpretation	.724**	.000	73
Competency-Based Lesson Planning	.701**	.000	73
Assessment of Learner Competencies	.688**	.000	73

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

Table 3 presents the correlation between in-service training and the implementation of the Competence-Based Curriculum (CBC) in government secondary schools in Ibanda Municipality. The results indicate strong positive relationships between in-service training and all three indicators of CBC implementation. Specifically, in-service training is strongly correlated with effective curriculum interpretation ($r = .724, p = .000$), suggesting that teachers who participate in in-service training are more capable of understanding and applying CBC principles accurately in their lesson delivery. Similarly, a strong positive correlation exists with competency-based lesson planning ($r = .701, p = .000$), indicating that teachers who attend in-service training are better equipped to design lessons that focus on learners' competencies rather than solely on content coverage. Additionally, in-service training is positively correlated with the assessment of learner competencies ($r = .688, p = .000$), showing that trained teachers are more effective in evaluating learners based on competency achievement. The p-values of .000 for all indicators confirm that these correlations are statistically significant, implying a very low probability

that the observed relationships occurred by chance. Overall, the results demonstrate that in-service training is a critical factor in enhancing teachers' ability to implement the CBC successfully.

Regression Analysis

A simple linear regression was conducted to determine the extent to which in-service training predicts the implementation of CBC.

Table 4: Model Summary of Regression Analysis

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.724	.524	.518	0.458

Table 4 presents the model summary of the regression analysis examining the effect of in-service training on the implementation of the Competence-Based Curriculum (CBC) in government secondary schools in Ibanda Municipality. The results show a multiple correlation coefficient (R) of 0.724, indicating a strong positive relationship between in-service training and CBC implementation. The coefficient of determination (R²) is 0.524, suggesting that approximately 52.4% of the variation in CBC implementation can be explained by in-service training alone. The adjusted R² value of 0.518 accounts for the number of predictors in the model and indicates that the model provides a good fit to the data. The standard error of the estimate is 0.458, showing that the predicted values of CBC implementation deviate from the actual values by an average of 0.458 units on the measurement scale. These results imply that in-service training is a significant predictor of CBC implementation and plays a crucial role in enhancing teachers' competence in curriculum interpretation, lesson planning, and assessment of learner competencies.

Table 5: ANOVA Results for Regression Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	31.537	1	31.537	150.12	.000**
Residual	28.581	71	0.403		
Total	60.118	72			

Table 5 presents the ANOVA results for the regression model examining the effect of in-service training on the implementation of the Competence-Based Curriculum (CBC) in government secondary schools in Ibanda Municipality. The results indicate that the regression model is statistically significant, with an F-value of 150.12 and a significance level of $p = .000$, which is less than the 0.01 threshold. This implies that in-service training reliably predicts CBC implementation. The regression sum of squares is 31.537 with 1 degree of freedom, reflecting the variation in CBC implementation explained by in-service training. The residual sum of squares is 28.581 with 71 degrees of freedom, representing the variation in CBC implementation not explained by the model. The total sum of squares is 60.118, which is the sum of explained and unexplained variance. These results confirm that in-service training significantly contributes to the successful implementation of CBC.

Table 6: Regression Coefficients

Predictor	B (Unstandardized)	Std. Error	Beta (Standardized)	t	Sig. (p)
Constant	0.811	0.182	–	4.453	.000
In-Service Training	0.432	0.035	.724	12.251	.000**

Table 6 presents the regression coefficients for the effect of in-service training on the implementation of the Competence-Based Curriculum (CBC) in government secondary schools in Ibanda Municipality. The constant (intercept) is 0.811 ($p = .000$), representing the predicted level of CBC implementation when in-service training is zero. The unstandardized coefficient (B) for in-service training is 0.432, with a standardized Beta of 0.724, a t-value of 12.251, and a significance level of $p = .000$. This indicates that a one-unit increase in in-service training

is associated with a 0.432-unit increase in CBC implementation, holding other factors constant. The high Beta and t-value demonstrate that in-service training is a strong and statistically significant predictor of CBC implementation in government secondary schools.

DISCUSSION

The study findings revealed that in-service training plays a pivotal role in enhancing teachers' capacity to implement the Competence-Based Curriculum (CBC) effectively in government secondary schools in Ibanda Municipality. The results demonstrated strong positive correlations between participation in in-service training and key indicators of CBC implementation, including effective curriculum interpretation ($r = .724$, $p = .000$), competency-based lesson planning ($r = .701$, $p = .000$), and assessment of learner competencies ($r = .688$, $p = .000$). Furthermore, regression analysis indicated that in-service training significantly predicts CBC implementation, with a standardized Beta of 0.724 and p-value of .000, suggesting that improvements in in-service training correspond to substantial increases in effective curriculum delivery.

These findings confirm that in-service training is a crucial professional development strategy, equipping teachers with the knowledge, skills, and practical strategies necessary to interpret competencies, plan lessons aligned with CBC objectives, and implement competency-based assessments. Teachers who participated in workshops, training sessions, and professional development programs reported enhanced confidence and competence in applying CBC principles in classroom instruction, which supports the notion that well-structured professional development directly influences teaching quality and learning outcomes (Patton, 2002; Kumar, 2011).

However, the study also highlighted challenges that limit the full potential of in-service training in optimizing CBC implementation. Irregular training schedules, limited funding, and unequal access to professional development opportunities were reported as significant barriers. Some teachers missed critical workshops due to logistical constraints, resulting in inconsistent understanding and application of CBC across schools. These gaps underscore the need for sustained, continuous professional development programs, coupled with structured follow-up, mentorship, and monitoring mechanisms to ensure all teachers are adequately supported in adopting CBC practices.

CONCLUSION

The study concluded that in-service training significantly influences the implementation of the Competence-Based Curriculum in government secondary schools in Ibanda Municipality. Teachers who participate in regular, well-structured training programs demonstrate improved pedagogical skills, lesson planning, and student engagement, leading to enhanced curriculum delivery and learning outcomes. Conversely, inadequate training frequency, lack of follow-up support, and limited teaching resources constrain effective CBC implementation. These findings highlight the importance of continuous capacity building and institutional support for teachers to achieve the intended goals of the CBC.

RECOMMENDATIONS

Organize regular, targeted workshops and refresher courses to build teachers' competencies for effective CBC implementation.

Establish structured follow-up programs where experienced educators or inspectors provide guidance and support.

Ensure schools are equipped with adequate teaching and learning materials aligned with CBC requirements.

Implement systematic mechanisms to assess the effectiveness of TPDPs and their impact on classroom practice.

Areas for Future Research

Investigate the role of peer coaching and collaborative professional learning in enhancing CBC implementation.

Examine the integration of ICT tools and digital learning resources in teacher professional development programs.

Explore the long-term impact of continuous professional development on student achievement across multiple subjects.

Assess the effect of leadership support and school culture on sustaining the outcomes of TPDPs.

REFERENCES

1. Amin, M. (2005). *Social Science Research: Concepts, Methods and Analysis*. Kampala: Makerere University Press.
2. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
3. Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education*. 8th Edition. London: Routledge.
4. Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 4th Edition. Sage Publications.
5. Creswell, J., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5th Edition. Sage Publications.
6. Israel, M., & Hay, I. (2006). *Research Ethics for Social Scientists*. Sage Publications.
7. Kothari, C. R. (2004). *Research Methodology: Methods and Techniques*. 2nd Edition. New Delhi: New Age International Publishers.
8. Kumar, R. (2011). *Research Methodology: A Step-by-Step Guide for Beginners*. 3rd Edition. London: Sage Publications.
9. Mugenda, O., & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: ACTS Press.
10. Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods*. 3rd Edition. Sage Publications.