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Fostering Critical Thinkers or Efficient Doers? An Analysis of the "Why" Question in Uganda's Competency-Based Curriculum

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Abstract

Background: Uganda's Competency-Based Curriculum (CBC), introduced in 2018, represents a paradigm shift from knowledge-centered to skills-oriented learning, explicitly advocating for learner-centered approaches that promote critical thinking and higher-order cognitive skills.

Objective: This study critically analyzed the extent to which Uganda's CBC fosters critical thinking through integration of the "why" question versus emphasizing practical competency development, assessing the balance between producing critical thinkers and efficient doers in curriculum design, instructional practices, and assessment mechanisms.

Methods: A convergent parallel mixed-methods design was employed across 45 purposively selected schools in urban, peri-urban, and rural settings. The quantitative phase involved 268 teachers completing validated questionnaires (Cronbach's α=0.87) assessing pedagogical practices and 1,340 students completing Critical Thinking Disposition Inventories and Competency Performance Assessments.

Results: Document analysis revealed task-oriented instructions outnumbered critical thinking prompts by 1:3.7 across all curriculum materials (χ^2=4372.89, p<.001), with assessment guidelines showing 1:5.2 ratio (83.8% task-oriented). Significant geographical disparities emerged in instructional practices: urban teachers emphasized "why" questions more frequently (M=3.82) and allocated greater time to discussion (31.4%) compared to rural teachers (M=2.89, 19.8%; F=38.42, p<.001, η^2=.224), while rural teachers focused more heavily on task-oriented competency demonstration (M=4.48, 51.6% time allocation).

Conclusion: Uganda's CBC predominantly produces efficient doers rather than critical thinkers, with this orientation embedded in curriculum design, assessment architecture, and structural constraints that systematically privilege observable competencies over higher-order cognitive development. The curriculum's written structure, pedagogical implementation, and evaluation mechanisms create a systematic imbalance favoring practical task execution, producing geographical disparities where urban students develop stronger analytical reasoning while rural students excel in skill demonstration, potentially exacerbating educational inequalities and limiting graduates' adaptive thinking capacities needed for complex problem-solving in evolving contexts.

Keywords: Competency-Based Curriculum, critical thinking, inquiry-based learning

Introduction

The landscape of education in Uganda has undergone significant transformation with the introduction of the Competency-Based Curriculum (CBC), a paradigm shift from traditional knowledge-centered pedagogy to skills-

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oriented learning (Prosper Mubangizi, 2020; Salazar-Fernandez et al., 2021). This curriculum reform, initiated by the National Curriculum Development Centre (NCDC), aims to equip learners with practical competencies that enable them to navigate the complexities of the 21st century. At the heart of this transformation lies a fundamental pedagogical tension: the balance between fostering critical thinking through inquiry-based learning and producing efficient doers capable of immediate task execution (Ndomondo et al., 2022; VERGUN et al., 2021). The "why" question—a cornerstone of critical thinking that encourages learners to probe beneath surface-level information, challenge assumptions, and understand underlying principles—serves as a crucial lens through which to examine this tension. While the CBC framework explicitly advocates for learner-centered approaches that promote higher-order thinking skills, the actual classroom implementation reveals varying degrees of emphasis on questioning, inquiry, and analytical reasoning (Ma et al., 2022; Muwanguzi et al., 2023). This study investigates how Uganda's Competency-Based Curriculum addresses the "why" question in its design, delivery, and assessment, exploring whether the curriculum prioritizes the development of critical thinkers who question, analyze, and synthesize information, or efficient doers who can competently execute prescribed tasks without necessarily understanding the rationale behind them. Understanding this dynamic is essential for stakeholders in Uganda's education sector as they seek to produce graduates who are not only competent in performing skills but also capable of innovative problem-solving and adaptive thinking in an increasingly complex global environment (Aheisibwe & Barigye, 2023; Mubaraka, 2023).

Background of the Study

Uganda's education system has historically been characterized by teacher-centered instruction, rote memorization, and examination-oriented learning, practices that often-limited learners' capacity for independent thought and creative problem-solving. Recognizing these limitations, the Ministry of Education and Sports, through the NCDC, embarked on curriculum reforms beginning in 2018, transitioning from the Knowledge-Based Curriculum to the Competency-Based Curriculum (Chemutai et al., 2023; Katurebe & Nalukwago, 2024). The CBC framework emphasizes learning outcomes that integrate knowledge, skills, values, and attitudes, aiming to produce holistic learners equipped for both the world of work and further education. Theoretically grounded in constructivist learning principles, the CBC advocates for active learning methodologies including inquiry-based learning, problem-based learning, and project-based learning—all of which depend heavily on learners asking and exploring the "why" behind phenomena (Charles et al., 2023; Julius & Isaac Kazaara, 2025). The "why" question represents more than mere curiosity; it embodies the critical thinking disposition identified by scholars such as Bloom, Paul, and Elder as essential for deep learning and intellectual autonomy. In educational psychology, the ability to ask "why" correlates with metacognitive development, analytical reasoning, and the capacity to transfer learning across contexts (Franco et al., 2023; Jamil et al., 2020). However, the competency-based approach also emphasizes observable, measurable skills and performance indicators, which may inadvertently prioritize procedural knowledge and task completion over conceptual understanding. Across Sub-Saharan Africa, similar curriculum reforms have encountered implementation challenges including inadequate teacher preparation, limited resources, large class sizes, and persistent examination pressures that sometimes undermine the philosophical intentions of competency-based education (O'Sullivan & Ring, 2021; Putro, 2023). In Uganda specifically, preliminary observations suggest that while the CBC documents articulate clear intentions regarding critical thinking and inquiry, classroom practices may not consistently reflect these aspirations. Teachers,

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constrained by time, resources, and their own pedagogical training, may focus on demonstrable competencies at the expense of cultivating the questioning mindset that underpins critical thinking (Ssentanda & Wenske, 2023; Vergel et al., 2018). Furthermore, assessment practices—whether formative or summative—play a crucial role in signaling to both teachers and learners what is truly valued in the curriculum, and these assessments may not adequately capture critical thinking competencies (Julius & Audrey, 2025a; Julius & Nancy, 2025). This background reveals a complex educational landscape where policy intentions, pedagogical practices, resource realities, and assessment mechanisms interact to shape the actual learning experiences of Ugandan students (Monica, 2022; Pepin et al., 2017; Su & Zhong, 2022).

Problem Statement

Despite the Competency-Based Curriculum's explicit commitment to developing critical thinking and higher-order cognitive skills, there exists limited empirical evidence regarding how effectively the curriculum cultivates learners' capacity to engage with the "why" question—the foundational element of analytical reasoning and deep understanding. While the CBC framework articulates noble intentions of producing learners who can think critically, solve problems creatively, and adapt to changing circumstances, the actual implementation may be characterized by a tension between these aspirations and the pragmatic pressures of demonstrating measurable competencies and preparing learners for standardized assessments (Cook, 2022; Fatimah et al., 2023). Teachers may face conflicting demands: the curriculum expects them to facilitate inquiry-based learning that encourages questioning and exploration, yet they must also ensure learners acquire specific, assessable competencies within limited timeframes and often with inadequate resources (Alakrash & Razak, 2021; Brean Bideke & Prudence, 2025; Janssens et al., 2022). This tension raises fundamental concerns about whether Uganda's CBC is genuinely fostering critical thinkers who understand the rationale behind what they learn and can transfer this understanding to novel situations, or whether it is primarily producing efficient doers who can competently perform prescribed tasks without necessarily grasping the underlying principles or developing the habit of critical inquiry (Geera & Onen, 2023). The implications are significant: if the curriculum tilts too heavily toward task-oriented competencies without adequately nurturing critical thinking, Uganda risks producing graduates who lack the adaptive thinking and innovative problem-solving capacities needed in a rapidly evolving economy and society. Conversely, if the emphasis on "why" questioning and critical analysis is not balanced with practical skill development, learners may struggle with the applied competencies needed for immediate productivity (Ginigaddara et al., 2023; Julius & Gracious Kaazara, 2025; Suzan & Alex, 2024). Without systematic examination of how the "why" question is integrated into curriculum documents, classroom instruction, learning materials, and assessment practices, stakeholders cannot make informed decisions about necessary adjustments to optimize the balance between critical thinking and competency development (Julius & Audrey, 2025b; Julius & Desire, 2025). This study therefore addresses a critical gap in understanding the philosophical orientation and practical implementation of Uganda's CBC, with significant implications for teacher training, curriculum refinement, and educational policy.

Main Objective of the Study

To critically analyze the extent to which Uganda's Competency-Based Curriculum fosters critical thinking through the integration of the "why" question versus emphasizing practical competency development, and to assess the balance

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between producing critical thinkers and efficient doers in curriculum design, instructional practices, and assessment mechanisms.

Specific Objectives

1. To examine how curriculum documents, learning materials, and policy frameworks of Uganda's Competency-Based Curriculum integrate opportunities for learners to engage with the "why" question and develop critical thinking dispositions.
2. To investigate teachers' pedagogical practices and classroom instructional strategies in implementing the CBC, specifically analyzing the extent to which they promote questioning, inquiry, and analytical reasoning versus task-oriented skill demonstration.
3. To evaluate the assessment practices employed within the Competency-Based Curriculum framework to determine whether they effectively measure both critical thinking competencies and practical skill proficiency, and how these assessments influence teaching and learning priorities.

Research Questions

1. How do Uganda's Competency-Based Curriculum documents, learning materials, and policy frameworks incorporate opportunities for learners to engage with the "why" question and develop critical thinking skills?
2. To what extent do teachers' instructional practices in implementing the CBC promote inquiry-based learning and critical questioning versus focusing primarily on demonstrable competency achievement?
3. How do assessment practices within the Competency-Based Curriculum framework balance the evaluation of critical thinking abilities with the measurement of practical competencies, and what impact do these assessments have on curricular priorities?

Methods.

This study employed a convergent parallel mixed-methods research design to comprehensively analyze the integration of critical thinking versus practical competency development in Uganda's Competency-Based Curriculum. The research was conducted across 45 purposively selected schools in three districts representing urban, peri-urban, and rural settings in Uganda, ensuring geographical and socioeconomic diversity. To achieve 80% statistical power with a medium effect size ($d=0.5$) at $\alpha=0.05$, a sample size calculation using G*Power software determined that 252 teachers were required for quantitative analyses, accounting for potential 15% attrition; ultimately, 268 teachers of primary and lower secondary levels participated through stratified random sampling proportional to district teacher populations. The quantitative phase utilized a validated 56-item Likert-scale questionnaire (Cronbach's $\alpha=0.87$) that assessed teachers' pedagogical practices, frequency of inquiry-based instruction, emphasis on the "why" question, and assessment strategies, while 1,340 students (five randomly selected students per teacher) completed a Critical Thinking Disposition Inventory and a Competency Performance Assessment to measure both analytical reasoning and practical skill proficiency. Concurrently, the qualitative phase involved document analysis of CBC policy frameworks, syllabi, teachers' guides, and learner textbooks using a systematic coding framework to identify instances promoting critical inquiry versus task-oriented instructions; semi-structured interviews with 36 purposively selected teachers, 12 head teachers, and 8 curriculum developers explored perceptions and experiences regarding the balance between fostering critical thinkers and efficient doers; and classroom observations of 72 lessons (two per interviewed teacher)

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using the Reformed Teaching Observation Protocol (RTOP) documented actual instructional practices and student-teacher questioning patterns.

Quantitative data were analyzed using SPSS version 26, employing descriptive statistics (means, standard deviations, frequencies), independent samples t-tests and one-way ANOVA to compare practices across school settings and teacher demographics, multiple regression analysis to identify predictors of critical thinking emphasis in instruction, and structural equation modeling (SEM) to examine relationships between curriculum implementation fidelity, instructional practices, and student outcomes in both critical thinking and competency performance (Nelson et al., 2022, 2023). Ethical approval was obtained from the relevant institutional review board and the Uganda National Council for Science and Technology, with informed consent secured from all participants and assent from student participants alongside parental consent, while confidentiality was maintained through pseudonymization and secure data storage protocols.

Results

Table 1: Teachers' Instructional Practices Emphasizing Critical Thinking vs. Competency Development by School Location

Variable	Urban (n=98) M (SD)	Peri-urban (n=92) M (SD)	Rural (n=78) M (SD)	F-value	p-value	η^2
Frequency of "Why" Questions (1-5 scale)	3.82 (0.74)	3.41 (0.68)	2.89 (0.81)	38.42	<.001	.224
Inquiry-Based Learning Activities	3.67 (0.82)	3.28 (0.76)	2.71 (0.88)	33.18	<.001	.200
Task-Oriented Competency Focus	4.21 (0.63)	4.35 (0.58)	4.48 (0.54)	4.89	.008	.036
Time Allocated to Discussion/Analysis (%)	31.4 (8.2)	26.7 (7.6)	19.8 (9.1)	47.63	<.001	.264
Time Allocated to Skill Demonstration (%)	38.2 (9.4)	42.8 (8.7)	51.6 (10.3)	51.27	<.001	.279
Use of Higher-Order Questions	3.44 (0.91)	2.98 (0.84)	2.52 (0.95)	28.14	<.001	.175

The one-way ANOVA revealed statistically significant differences across school locations for all instructional practice variables at $p<.001$, except for task-oriented competency focus which showed significance at $p=.008$. Post-hoc Tukey HSD tests indicated that urban teachers scored significantly higher than both peri-urban and rural teachers on

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frequency of "why" questions (Urban vs. Rural: mean difference=0.93, p<.001; Urban vs. Peri-urban: mean difference=0.41, p<.001), with peri-urban teachers also scoring significantly higher than rural teachers (mean difference=0.52, p<.001). The effect sizes for critical thinking-related variables were large (η^2=.175 to .279), indicating that school location accounted for 17.5% to 27.9% of the variance in these practices. Conversely, task-oriented competency focus showed a small but significant effect (η^2=.036), with rural teachers reporting the highest emphasis (M=4.48) compared to urban teachers (M=4.21). The pattern of time allocation revealed an inverse relationship: as the emphasis on discussion and analysis decreased from urban to rural settings, the time devoted to skill demonstration correspondingly increased, suggesting a systematic shift in pedagogical priorities based on geographical context.

These findings revealed a pronounced geographical disparity in how teachers implemented the Competency-Based Curriculum, with urban educators demonstrating significantly greater emphasis on critical thinking pedagogies while rural teachers focused more heavily on practical competency demonstration. The large effect sizes observed for critical thinking variables indicated that these differences were not merely statistically significant but represented substantial practical differences in classroom experiences for learners across different settings. Urban teachers' higher frequency of "why" questions (M=3.82) and greater allocation of time to discussion and analysis (31.4%) suggested that these educators had either greater capacity, resources, or training to implement the inquiry-based aspects of the CBC. The finding that rural teachers emphasized task-oriented competency focus most strongly (M=4.48) and devoted over half their instructional time (51.6%) to skill demonstration indicated a pragmatic, efficiency-oriented interpretation of the curriculum that prioritized observable, measurable outcomes over conceptual understanding. This pattern aligned with resource constraint theories, where teachers in under-resourced settings adopted more teacher-centered, demonstration-focused approaches that were easier to manage with large class sizes and limited materials. The results suggested that the CBC's dual mandate of fostering both critical thinkers and efficient doers was being differentially implemented, with urban students receiving more opportunities for analytical reasoning while rural students experienced more skills-focused instruction, potentially exacerbating existing educational inequalities across Uganda's geographical regions.

Table 2: Student Outcomes in Critical Thinking and Competency Performance by School Location

Outcome Measure	Urban (n=490) M (SD)	Peri-urban (n=460) M (SD)	Rural (n=390) M (SD)	F-value	p-value	η^2
Critical Thinking Disposition Score (0-100)	68.3 (12.4)	61.7 (13.8)	54.2 (15.2)	112.47	<.001	.144
Analysis Subscore	71.2 (14.1)	63.4 (15.6)	55.8 (16.9)	98.32	<.001	.128
Inference Subscore	66.8 (13.7)	59.8 (14.2)	52.1 (15.8)	104.61	<.001	.135

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Evaluation Subscore	67.1 (15.3)	61.9 (16.1)	54.7 (17.4)	63.28	<.001	.087
Competency Performance Score (0-100)	73.6 (11.2)	76.4 (10.8)	78.9 (12.6)	22.18	<.001	.032
Practical Skills Execution	75.2 (12.8)	78.6 (11.4)	81.3 (13.2)	24.87	<.001	.036
Task Completion Accuracy	72.8 (13.4)	75.1 (12.9)	77.2 (14.1)	11.43	<.001	.017

One-way ANOVA results demonstrated highly significant differences ($p<.001$) across all outcome measures, though effect sizes varied considerably between critical thinking and competency performance variables. For critical thinking outcomes, effect sizes were medium to large ($\eta^2=.087$ to .144), with school location explaining 8.7% to 14.4% of variance in students' critical thinking abilities. Urban students significantly outperformed both peri-urban and rural students on overall critical thinking disposition (Urban M=68.3 vs. Rural M=54.2, mean difference=14.1 points, $d=0.98$, $p<.001$), representing nearly one full standard deviation difference. All critical thinking subscores followed the same pattern, with the largest effect observed for inference skills ($\eta^2=.135$). Interestingly, the pattern reversed for competency performance scores, where rural students achieved the highest scores (M=78.9) compared to urban students (M=73.6), though the effect size was small ($\eta^2=.032$). This inverse relationship between critical thinking and competency performance across locations was statistically significant (Pearson $r=-.18$, $p<.001$), suggesting that emphasis on one domain may have occurred at some expense to the other. The practical skills execution subscore showed the largest effect ($\eta^2=.036$) among competency measures, with rural students excelling particularly in hands-on task performance.

The student outcome data revealed a striking inverse relationship between critical thinking development and practical competency performance across school locations, providing empirical evidence for the study's central tension between fostering critical thinkers versus efficient doers. Urban students' substantially higher critical thinking scores (14.1 points above rural students) directly corresponded to their teachers' greater emphasis on inquiry-based instruction and higher-order questioning documented in Table 1, demonstrating a clear link between pedagogical practices and cognitive outcomes. The medium to large effect sizes for critical thinking variables indicated that these differences represented meaningful educational disparities with potential long-term implications for students' adaptive thinking and problem-solving capacities beyond school. However, the finding that rural students outperformed urban students in competency performance, particularly in practical skills execution (M=81.3 vs. M=75.2), suggested that the skills-focused, demonstration-oriented instruction prevalent in rural settings effectively developed students' ability to execute prescribed tasks accurately and efficiently. This created a paradoxical situation where the curriculum appeared to be producing two different types of learners depending on geography: urban students who could think critically but scored lower on practical competencies, and rural students who excelled at task execution but demonstrated weaker analytical reasoning. The small but significant negative correlation between critical thinking and competency performance ($r=-.18$) raised important questions about whether the CBC's implementation had inadvertently created

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a zero-sum dynamic where instructional time and emphasis devoted to one domain necessarily diminished the other, or whether this reflected genuine pedagogical trade-offs in resource-constrained environments where teachers made strategic choices about which curriculum goals to prioritize given their contextual realities.

Table 3: Multiple Regression Analysis Predicting Emphasis on Critical Thinking in Instruction

Predictor Variable	B	SE	β	t	p	95% CI
(Constant)	1.24	0.38	-	3.26	.001	[0.49, 1.99]
Teacher Education Level	0.42	0.11	.241	3.82	<.001	[0.20, 0.64]
Years of Teaching Experience	0.03	0.01	.148	2.89	.004	[0.01, 0.05]
Class Size	-0.02	0.004	-.287	-5.23	<.001	[-0.03, -0.01]
Access to Teaching Resources	0.38	0.09	.265	4.22	<.001	[0.20, 0.56]
CBC Training Hours Received	0.05	0.01	.224	4.18	<.001	[0.03, 0.07]
School Location (Urban=1)	0.47	0.13	.198	3.62	<.001	[0.21, 0.73]
Assessment Pressure	-0.31	0.08	-.216	-3.88	<.001	[-0.47, -0.15]

Model Statistics: R^2=.524, Adjusted R^2=.511, $F(7, 260)=40.83$, $p<.001$

The multiple regression model explained 52.4% of the variance in teachers' emphasis on critical thinking instruction, with all seven predictors contributing significantly ($p \leq .004$). The model demonstrated excellent fit ($F=40.83$, $p<.001$) and substantial predictive power (Adjusted R^2=.511). Standardized coefficients revealed that class size had the strongest negative effect ($\beta=-.287$, $p<.001$), indicating that each additional student in a class was associated with decreased emphasis on critical thinking pedagogies, holding other variables constant. Access to teaching resources emerged as the strongest positive predictor ($\beta=.265$, $p<.001$), followed by teacher education level ($\beta=.241$, $p<.001$) and CBC training hours ($\beta=.224$, $p<.001$). Assessment pressure exerted a significant negative effect ($\beta=-.216$, $p<.001$), suggesting that teachers who perceived greater pressure to prepare students for standardized assessments reduced their emphasis on critical thinking instruction. School location remained a significant predictor even after controlling for other variables ($\beta=.198$, $p<.001$), indicating that urban settings conferred advantages beyond measured resources and training. Collinearity diagnostics showed acceptable tolerance values (all >.42) and VIF values (all <2.38), confirming that multicollinearity did not threaten the model's validity.

The regression analysis identified multiple systemic and contextual factors that significantly influenced teachers' capacity and willingness to implement critical thinking pedagogies within the CBC framework, explaining over half

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the variance in instructional emphasis. The finding that class size exerted the strongest negative effect (β=-.287) highlighted a crucial structural barrier: large classes, particularly prevalent in rural schools (mean class size: rural=62.4, urban=38.7), made inquiry-based instruction and facilitation of "why" questions logistically challenging, pushing teachers toward more manageable demonstration-and-practice approaches. This structural constraint operated independently of teacher quality or motivation, suggesting that even well-trained, committed educators struggled to implement critical thinking pedagogies in overcrowded classrooms. The strong positive effects of access to teaching resources (β=.265) and CBC training hours (β=.224) pointed to potentially actionable intervention points: providing adequate learning materials and comprehensive professional development could substantially shift instructional practices toward greater critical thinking emphasis. However, the significant negative effect of assessment pressure (β=-.216) revealed a misalignment between the CBC's philosophical intentions and its accountability mechanisms. Teachers who felt compelled to ensure students performed well on standardized assessments—which often emphasized knowledge recall and competency demonstration over analytical reasoning—rationally allocated instructional time toward test-relevant content and skills, even if this contradicted the curriculum's critical thinking goals. The persistence of school location as a significant predictor (β=.198) after controlling for tangible factors like resources, class size, and training suggested the presence of additional unmeasured variables, possibly including school leadership quality, peer teacher networks, parental expectations, or community educational cultures that differentially supported critical thinking pedagogies in urban versus rural contexts. These findings collectively indicated that fostering critical thinking was not simply a matter of curriculum design or teacher will, but rather depended on a complex ecology of structural, resource, professional development, and assessment-related factors that either enabled or constrained teachers' implementation of inquiry-based approaches.

Table 4: Curriculum Document Analysis - Frequency of Critical Thinking vs. Task-Oriented Instructions

Document Type	Total Instructional Prompts Analyzed	Critical Thinking Prompts n (%)	Task-Oriented Instructions n (%)	Ratio (CT:TO)	χ^2	p-value
Primary Syllabi (P1-P7)	1,847	412 (22.3%)	1,435 (77.7%)	1:3.5	567.23	<.001
Lower Secondary Syllabi (S1-S4)	2,264	618 (27.3%)	1,646 (72.7%)	1:2.7	466.82	<.001
Teachers' Guides	3,128	719 (23.0%)	2,409 (77.0%)	1:3.4	914.87	<.001
Learner Textbooks	4,892	892 (18.2%)	4,000 (81.8%)	1:4.5	1984.38	<.001

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Assessment Guidelines	1,156	187 (16.2%)	969 (83.8%)	1:5.2	527.42	<.001
Overall Total	**13,287**	**2,828 (21.3%)**	**10,459 (78.7%)**	**1:3.7**	**4372.89**	**<.001**

Categories of Critical Thinking Prompts: Questions requiring explanation/justification (n=1,124, 39.7%), analysis/comparison activities (n=847, 30.0%), evaluation tasks (n=523, 18.5%), hypothesis generation (n=334, 11.8%)

Categories of Task-Oriented Instructions: Demonstration/replication tasks (n=4,287, 41.0%), recall/identification exercises (n=3,672, 35.1%), procedural steps (n=1,876, 17.9%), completion tasks (n=624, 6.0%)

Chi-square tests of goodness-of-fit revealed highly significant differences ($p<.001$) between the observed distribution of critical thinking prompts versus task-oriented instructions and what would be expected under equal distribution across all document types. The overall ratio of 1:3.7 indicated that for every critical thinking prompt in CBC documents, there were 3.7 task-oriented instructions, representing a 78.7% emphasis on competency execution over analytical inquiry. Assessment guidelines showed the most pronounced imbalance (1:5.2 ratio, 83.8% task-oriented), while lower secondary syllabi demonstrated the relatively highest critical thinking emphasis (27.3%) though still maintaining a 1:2.7 ratio favoring task orientation. Effect sizes measured by Cramér's V ranged from .48 to .73, indicating large practical significance in the imbalance. Among critical thinking prompts, questions requiring explanation and justification were most common (39.7%), while hypothesis generation—representing the highest level of inquiry—comprised only 11.8%. For task-oriented instructions, demonstration and replication tasks dominated (41.0%), followed closely by recall and identification exercises (35.1%), suggesting emphasis on observable performance and knowledge reproduction. The pattern was consistent across all document types (Cochran's $Q=8.47$, $p=.076$), indicating systemic rather than isolated emphasis on task orientation.

The systematic document analysis provided compelling evidence that Uganda's CBC, despite its espoused commitment to critical thinking, was fundamentally structured to emphasize practical competency demonstration over analytical inquiry, with task-oriented instructions outnumbering critical thinking prompts by nearly 4:1 across all curriculum materials. This pronounced imbalance in the curriculum's "written" level helped explain the instructional patterns observed in Table 1 and student outcomes in Table 2: teachers were implementing the curriculum largely as designed, and the design itself prioritized efficient doing over critical thinking. The finding that assessment guidelines showed the most extreme imbalance (83.8% task-oriented) was particularly significant because assessments powerfully signal curricular priorities to both teachers and learners, creating what assessment theorists call "backwash effects" that shape instructional emphasis. When 5 out of every 6 assessment prompts focused on task completion, recall, or demonstration rather than analysis, evaluation, or justification, teachers rationally devoted instructional time to what would be assessed, regardless of philosophical statements about critical thinking in curriculum preambles. The relatively higher critical thinking emphasis in lower secondary syllabi (27.3%) compared to primary syllabi

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(22.3%) suggested some developmental progression in cognitive expectations, yet even at the secondary level, three-quarters of instructional prompts emphasized task orientation. The predominance of demonstration and replication tasks (41.0%) and recall exercises (35.1%) within task-oriented instructions revealed a curriculum architecture built around observable, measurable performances that aligned with competency-based education's emphasis on clear learning outcomes but potentially at the expense of less easily measurable higher-order thinking. The paucity of hypothesis generation prompts (11.8% of critical thinking prompts, or just 2.5% of all prompts) indicated minimal emphasis on the highest levels of inquiry and scientific reasoning. These document-level findings suggested that the tension between fostering critical thinkers and efficient doers was not primarily an implementation problem but rather was embedded in the curriculum's fundamental design, with profound implications for any reform efforts: addressing the imbalance would require not just better teacher training or resources, but fundamental revision of curriculum documents, learning materials, and especially assessment frameworks to authentically prioritize the critical thinking competencies the CBC claimed to value.

Recommendations

Restructure Curriculum Documents and Assessment Frameworks to Achieve Balanced Integration of Critical Thinking and Practical Competencies

The Ministry of Education and Sports through the National Curriculum Development Centre should undertake comprehensive revision of CBC syllabi, teachers' guides, learner textbooks, and assessment guidelines to fundamentally rebalance the current 1:3.7 ratio of critical thinking to task-oriented instructions, targeting a minimum threshold of 40% critical thinking prompts (particularly increasing hypothesis generation activities from the current 11.8% to at least 25% of critical thinking prompts) to ensure learners develop both analytical reasoning and practical competencies. Most critically, assessment guidelines must be redesigned to include 35-40% of evaluation items measuring explanation, justification, analysis, evaluation, and inference skills rather than the current 16.2%, thereby creating positive backwash effects that authentically signal to teachers and learners that critical thinking is valued and assessed, not merely articulated in policy rhetoric.

Address Systemic Barriers Through Targeted Resource Allocation, Class Size Reduction, and Context-Responsive Professional Development

Given that class size emerged as the strongest negative predictor of critical thinking instruction (β=-.287) and that resource access and CBC training were strong positive predictors (β=.265 and β=.224 respectively), education authorities must prioritize reducing class sizes particularly in rural schools (current mean of 62.4 students), ensure equitable distribution of teaching and learning resources across geographical contexts, and implement differentiated professional development programs that equip teachers with practical strategies for facilitating inquiry-based learning in resource-constrained, large-class environments. These interventions should target the 52.4% of variance in instructional practices explained by structural and systemic factors, recognizing that critical thinking pedagogy

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depends not merely on teacher will but on enabling conditions including manageable class sizes, adequate materials, and comprehensive training.

Realign Assessment Pressure and Accountability Mechanisms to Support Rather Than Undermine Critical Thinking Goals

The significant negative effect of assessment pressure on critical thinking instruction (β=-.216) and the 83.8% task-oriented emphasis in assessment guidelines reveal fundamental misalignment between the CBC's philosophical intentions and its accountability mechanisms. Education policymakers must redesign standardized assessments to authentically measure both critical thinking dispositions and practical competencies with equal weight, develop formative assessment tools that capture analytical reasoning and the ability to engage with "why" questions, and establish monitoring frameworks that track both cognitive outcomes (critical thinking scores) and performance outcomes (competency execution) as equally important indicators of educational quality, thereby removing the current rational incentive for teachers to prioritize demonstrable competencies at the expense of higher-order thinking skills.

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