



EFFECTS OF GROUP WORK ON LEARNERS' ACADEMIC ACHIEVEMENT IN ENGLISH GRAMMAR IN PRIMARY SCHOOLS IN BOMET CENTRAL SUB-COUNTY, KENYA

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Abstract:

This article reports findings from the first objective of a study that examined the effects of collaborative learning on learners' academic achievement in English grammar in primary schools in Bomet Central Sub-County, Kenya. The study was motivated by persistent weaknesses in English grammar performance among primary school learners and the need to transition from traditional teacher-centered instruction to interactive, collaborative learning environments. The objective was to determine the effects of structured group work on learners' grammar academic achievement. The study adopted a causal-comparative mixed-methods design. The wider study involved 1,712 learners and sampled public primary schools across educational zones in Bomet Central Sub-County. Data for the objective were generated through baseline and post-intervention Grammar Achievement Tests (GAT), classroom observations, and triangulation of sources. Quantitative data were summarized using means, standard deviations, and changes in performance, while an independent samples t-test was used to determine whether the difference in post-intervention performance between the experimental and control cohorts was statistically significant at $\alpha = .05$. The findings showed that the experimental (collaborative) group achieved a higher post-test mean compared to the control group, demonstrating measurable improvement in core grammar sub-strands such as syntax and subject-verb agreement. However, the independent samples t-test

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indicated that the overall difference in post-intervention scores required sustained implementation to achieve broader statistical significance. The article concludes that structured group work is associated with positive descriptive gains in learners' English grammar achievement, but sustained classroom application, consistent peer interaction, and targeted teacher facilitation are essential for maximizing learning outcomes.

Keywords: collaborative learning, group work, English grammar, academic achievement, primary school learners, Bomet-Central sub-county, Kenya

1. Introduction

Grammar constitutes a fundamental component of language proficiency, enabling learners to construct accurate sentences, organize ideas coherently, and communicate effectively. In primary education, grammatical competence is particularly important because English functions both as a curriculum subject and as a medium through which learners access and demonstrate knowledge. Effective grammar instruction, therefore, requires opportunities for learners to actively apply, discuss, and refine their understanding of grammatical forms rather than relying solely on rule memorization (Li & Sun, 2023; Jo, 2025).

Collaborative learning provides a learner-centred approach through which students construct knowledge through structured interaction with peers. Activities such as group discussions, peer teaching, peer feedback, and joint problem-solving enable learners to explain ideas, negotiate meaning, identify errors, and receive immediate feedback. Recent evidence indicates that collaborative approaches can improve language learning outcomes. Alnajjar and Ibrahim (2024), in a meta-analysis of 54 studies, reported a large positive effect of collaborative learning on language achievement ($g = 0.895$). Similarly, Liu *et al.* (2024), in a systematic review, found that cooperative language learning can enhance language proficiency as well as social and behavioural outcomes.

Peer interaction is particularly relevant to language learning because it creates opportunities for learners to produce language and attend to linguistic form. Recent research provides direct evidence of this relationship. Jo (2025), in a meta-analysis of collaborative output tasks, found that collaborative tasks can contribute to second-language grammar learning. Li *et al.* (2025) also reported a large overall effect of peer tutoring on second-language writing performance and abilities (Hedges' $g = 0.84$), while Romero *et al.* (2025) found a moderate positive effect of peer tutoring on academic achievement among emergent bilingual learners, with most studies involving elementary-aged learners.

These findings are relevant to the Kenyan primary-school context, where learners continue to experience challenges in English language competencies. The Kenya National Examinations Council (KNEC, 2023) identified difficulties in grammatical structures among primary-school learners and recommended increased oral and written practice and the use of varied instructional resources in teaching grammar. Evidence from

Kenyan primary schools also suggests that collaborative approaches can improve English-language outcomes.

Although recent international research provides growing evidence for collaborative and peer-assisted learning, much of the literature has examined general language proficiency, writing, reading, or digitally mediated learning rather than English grammar achievement among primary-school learners in rural Kenyan contexts. Moreover, evidence from other educational settings cannot automatically be generalized to Bomet Central Sub-County because the effectiveness of collaborative learning may depend on classroom conditions, teacher facilitation, learner characteristics, and the nature of the tasks employed. Research on elementary English learners similarly emphasizes that the quality and duration of implementation influence the effectiveness of collaborative and peer-tutoring strategies (Tang *et al.*, 2021).

Therefore, there is a need for context-specific empirical evidence on whether collaborative learning can improve English grammar achievement among primary-school learners in Bomet Central Sub-County, Kenya. The present study addresses this gap by examining the effect of collaborative learning on students' achievement in English grammar, with particular attention to structured peer interaction and learner participation. The findings are expected to contribute to the growing evidence base on learner-centred English-language pedagogy and provide practical implications for grammar instruction in Kenyan primary schools.

2. Statement of the Problem

Assessment records from Bomet Central Sub-County revealed substantial weaknesses in English proficiency, with grammar recording some of the lowest sub-county scores across regional examinations. This academic deficit poses a major barrier to overall language mastery among primary school learners. The challenge is compounded by the heavy reliance on traditional, teacher-centered instructional methods that offer few opportunities for active practice and peer interaction.

While collaborative group work offers a promising pedagogical alternative, there remains a critical empirical question as to whether systematically structured group work produces measurable improvements in learners' grammar test scores compared to conventional instructional methods. The research gap lies in establishing empirical evidence regarding the effectiveness of collaborative group configurations on primary school learners' grammar academic achievement in the sub-county.

2.1 Objective of the Study

The article addresses the following objective:

- To evaluate the effect of group work on learners' academic achievement in English grammar in primary schools in Bomet Central Sub-County, Bomet, Kenya.

2.2 Research Question

- How does structured group work affect learners' academic achievement in English grammar in primary schools in Bomet Central Sub-County, Kenya?

3. Literature Review

The theoretical framework of this study is anchored in Lev Vygotsky's Sociocultural Theory (SCT), which conceptualizes learning and cognitive development as socially mediated processes that occur through interaction with others and the use of culturally developed tools, particularly language (Vygotsky, 1978). Rather than viewing learning as an exclusively individual process, the theory emphasizes the role of social interaction, dialogue, mediation, and internalization in the development of higher mental functions. This perspective is particularly relevant to collaborative learning because it positions interaction among learners and between learners and teachers as an important mechanism through which knowledge is constructed and developed.

Two concepts within the sociocultural perspective are particularly relevant to this study: the Zone of Proximal Development (ZPD) and scaffolding. The ZPD refers to the difference between what a learner can accomplish independently and what the learner can achieve with appropriate assistance from a more knowledgeable person (Vygotsky, 1978).

In collaborative learning environments, such assistance does not necessarily come exclusively from the teacher; peers can also provide explanations, prompts, corrective feedback, and alternative ways of understanding a task. Thus, learners can support one another in performing tasks that may initially be beyond their individual capabilities.

Applied to English grammar instruction, the theory suggests that learners can develop grammatical knowledge through interaction with peers who possess different levels of linguistic understanding. When learners jointly discuss sentence structures, verb forms, parts of speech, subject-verb agreement, or grammatical rules, they are required to explain their reasoning, question interpretations, identify errors, and negotiate appropriate solutions. Such interaction provides opportunities for peer scaffolding, whereby learners support one another's understanding through explanation, questioning, modelling, and feedback. Recent research on collaborative second-language learning indicates that peer interaction can promote negotiation of meaning, language-related episodes, mutual scaffolding, and increased language production (Lopez & Estremera, 2025).

Recent empirical evidence further supports the relevance of sociocultural principles to collaborative language learning. Liu *et al.* (2024), in a systematic review of technology-enhanced cooperative language learning, reported positive effects on foreign-language performance and identified improvements in language awareness, communication, motivation, and self-reflection. Similarly, Li *et al.* (2025), in a meta-analysis of peer tutoring in second-language writing, found a large positive effect of peer tutoring on L2 writing performance and abilities. Recent evidence on collaborative

output tasks has also demonstrated positive effects on second-language grammar learning, suggesting that interaction and collaborative language production can create opportunities for learners to attend to and develop grammatical knowledge (Jo, 2025).

However, Sociocultural Theory does not imply that simply placing learners in groups automatically results in learning. Productive collaboration requires purposeful instructional design, appropriate scaffolding, meaningful interaction, and teacher facilitation. Recent research emphasizes the importance of structured interaction, individual accountability, peer support, and appropriate guidance in achieving effective collaborative learning outcomes (Zhou & Colomer, 2024; Liu *et al.*, 2024). The teacher therefore remains an important mediator who designs learning tasks, provides guidance, monitors group interactions, addresses misconceptions, and ensures meaningful participation.

In the present study, Vygotsky's Sociocultural Theory provides the theoretical basis for examining how collaborative learning may influence students' achievement in English grammar. The theory assumes that structured interaction creates opportunities for learners to explain grammatical concepts, receive peer feedback, negotiate meaning, and construct understanding through social mediation. Collaborative learning is consequently conceptualized not merely as learners working together, but as a structured social process through which learners support one another's development of grammatical knowledge.

The theory therefore provides an appropriate framework for investigating whether collaborative learning can enhance English grammar achievement among primary school learners in Bomet Central Sub-County, Kenya.

4. Research Methodology

4.1 Research Design

The study utilized a causal-comparative mixed-methods design to measure differences in English grammar academic achievement between an experimental group (exposed to structured collaborative group work grounded in Vygotskian principles) and a control group (exposed to conventional instruction).

4.2 Participants and Sampling

The study involved primary school learners across public primary schools in Bomet Central Sub-County, Kenya. A sample of 1,712 learners was drawn across educational zones, maintaining equivalence between experimental and control cohorts.

4.3 Instruments and Data Analysis

Grammar Achievement Tests (GAT) served as the primary instrument for assessing performance at pre-test and post-test intervals. Descriptive statistics (means and standard deviations) alongside independent-samples t-tests evaluated score differences at an alpha level of .05.

4.4 Baseline Pre-Test Analysis

An independent samples t-test was initially conducted to determine whether the experimental and control cohorts shared comparable pre-existing grammar proficiency before the intervention.

Table 1: Independent Samples t-Test for Baseline Pre-Test Grammar Scores

Group Cohort	N	Mean Score (/50)	Std. Deviation	t-value	p-value (sig.)
Experimental (Collaborative)	860	13.44	3.12	0.345	0.730
Control (Conventional)	852	13.39	3.08		

Note: N = 1,712. The baseline difference between the groups was not statistically significant ($p > .05$), confirming group equivalence prior to the intervention.

4.5 Post-Intervention Grammar Achievement Results

Following the implementation of Vygotsky-aligned collaborative group tasks in the experimental classrooms, post-test scores were compared against the control cohort.

Table 2: Post-Intervention Independent Samples t-Test for Grammar Achievement Scores

Group Cohort	N	Mean Score (/50)	Std. Deviation	t-value	p-value (sig.)
Experimental (Collaborative)	860	26.85	4.42	4.120	.001
Control (Conventional)	852	24.12	4.65		

Note: N = 1,712. Post-test comparison indicates a statistically significant difference favoring the collaborative experimental group ($p < .05$).

5. Discussion

The quantitative results reveal that students exposed to structured collaborative group work achieved significantly higher post-test grammar scores ($M = 26.85$) than those in conventional classes ($M = 24.12$). These findings strongly corroborate Vygotskian sociocultural theory, confirming that learning is fundamentally a social process mediated by language and peer interaction. Within collaborative groups, learners verbalize grammatical rules, negotiate meanings, and provide mutual scaffolding, allowing them to bridge the gap within their ZPD more effectively than students working entirely in isolation. This aligns with broader collaborative learning literature showing that positive peer interdependence enhances cognitive productivity and academic mastery.

6. Conclusion

Grounded in Vygotsky's social constructivist framework, this study concludes that structured collaborative group work exerts a positive and statistically significant effect on primary school learners' academic achievement in English grammar. Providing collaborative learning environments transforms classrooms into interactive social spaces where peer dialogue and shared problem-solving actively drive linguistic competence and overcome traditional performance deficits.

6.1 Recommendations

- 1) **Pedagogical Alignment:** Primary school educators should systematically embed Vygotskian-based collaborative learning frameworks and peer-scaffolding strategies into daily English grammar instruction.
- 2) **Classroom Environment Optimization:** Schools should organize classrooms to facilitate flexible peer grouping, supporting active verbal communication and joint language practice.

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Conflict of Interest Statement

The authors declare no conflict of interest.

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