

EFFECT OF CONTENT AND LANGUAGE INTEGRATED LEARNING (CLIL) STRATEGY ON STUDENTS' ACADEMIC PERFORMANCE IN ENGLISH LANGUAGE IN FUNTUA ZONAL EDUCATION, KATSINA STATE, NIGERIA

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Abstract

This study examined the effect of the Content and Language Integrated Learning (CLIL) Strategy on Students' Academic Performance in English Language in Funtua Zonal Education, Katsina State, Nigeria. A quasi-experimental research design was adopted, involving 95 SS2 students purposively selected from two secondary schools. The experimental group ($n = 45$) received instruction via the CLIL strategy, while the control group ($n = 50$) was taught using the conventional lecture method within a period of six weeks. Data were collected using a validated English Language Proficiency Test (ELPT) administered as a pre-test and post-test. Instrument reliability was established using the Kuder-Richardson, yielding a coefficient of 0.80. Independent samples t-test and one-way Analysis of Variance (ANOVA) tested the null hypothesis at $p \leq 0.05$. Findings revealed a statistically significant difference in favour of the CLIL group ($M = 16.49$ vs. 12.48 ; $t = 21.91$, $p = .000$). The study concludes that integrating language instruction with subject content significantly enhances students' academic performance than the lecture method. It is recommended that teachers should be trained in CLIL implementation and that curriculum developers incorporate CLIL principles into secondary school programmes.

Keywords: Content and Language Integrated Learning (CLIL), Academic Performance, English Language.

Introduction

Education in the 21st century demands pedagogical strategies that foster both language development and subject mastery. In multilingual societies where English serves as both the official language and the primary medium of instruction in secondary schools, learners often struggle to grasp content knowledge effectively due to limited English language proficiency (Jitpaiboon & Sripicharn, 2022). In the Funtua Zonal Education Area of Katsina State, a typical northern Nigerian educational setting marked by multilingualism, under-resourced schools, and uneven academic performance, this challenge is particularly acute. Students' inability to decode instructional language, interpret textbooks, or express ideas clearly in assessments

directly contributes to persistently low examination results and poor classroom engagement (Abubakar & Msheha, 2025).

Content and Language Integrated Learning (CLIL) is an instructional strategy that promotes subject-content learning through a second or foreign language, typically English in Nigeria. Rather than teaching language in isolation, CLIL integrates it into subjects such as Biology, History, or Civic Education, allowing students to acquire both language skills and academic content knowledge concurrently across the four core language skills: listening, speaking, reading, and writing (Education First, 2022; Kewara & Prabjandee, 2018). Originating in Europe during the 1990s as a response to the demands of a globalised world, CLIL has since accumulated substantial empirical support in diverse international settings (Dalton-Puffer, 2017). However, its implementation in Nigerian secondary schools, particularly in northern educational zones, remains underexplored.

The consistent decline in academic performance in Funtua Zonal Education compounded by the disconnect between language instruction and content delivery, underlines an urgent need for innovative pedagogical interventions. This study therefore investigates whether adopting the CLIL strategy can significantly enhance students' academic performance in listening, speaking, reading, and writing skills, compared to the conventional lecture method, in the Funtua Zonal Education Area of Katsina State, Nigeria. The findings seek to provide localised empirical evidence to inform educational policy, teacher training programmes, and curriculum development across comparable regions.

Content and Language Integrated Learning (CLIL) is a dual-focused educational strategy in which an additional language is used for the learning and teaching of both content and language (Coyle et al., 2020). Rather than teaching language and subject matter in isolation, CLIL uses a foreign or second language, often English, as the medium for disciplines such as science, history, or social studies (Mehisto et al., 2018). The strategy creates a rich learning environment by combining language and subject learning in authentic way, enabling students to develop both content knowledge and communicative competence simultaneously.

Underpinning CLIL is Krashen's (1985) argument that comprehensible input is the crucial ingredient for language acquisition; CLIL delivers this input by situating learners within cognitively challenging tasks. Moreover, CLIL supports the development of Cognitive Academic Language Proficiency (CALP), the advanced academic language skills needed for subject mastery, as distinct from Basic Interpersonal Communication Skills (BICS) acquired in everyday situations (Jeff MacSwan, 2017). Research consistently demonstrates that CLIL learners outperform their non-CLIL peers in receptive skills such as listening comprehension and reading, as well as productive skills such as oral fluency and academic writing (Dalton-Puffer, 2017; Lasagabaster & Sierra, 2019).

Three theoretical frameworks anchor this study. First, Second Language Acquisition (SLA) Theory, particularly Krashen's (1985) Input Hypothesis and Vygotsky's Sociocultural Theory, highlights the centrality of comprehensible, contextualized input and social interaction in

language acquisition, both of which CLIL operationalizes through content-based instruction and collaborative learning. Second, Cognitive Load Theory (Sweller, 1988) explains the dual cognitive demands of CLIL; effective CLIL instruction manages intrinsic load (content complexity) and minimizes extraneous load (poor instructional design) while maximizing germane load (schema formation) through scaffolding, visual aids, and sequenced tasks. Third, Vygotsky's (1978) Zone of Proximal Development (ZPD) provides a framework for understanding how scaffold CLIL instruction, delivered through peer collaboration, teacher guidance, and graduated challenges, supports learners in moving from dependent to autonomous academic performance.

A growing body of international research validates CLIL's effectiveness. Merino and Lasagabaster (2018), in a one-year longitudinal study of 393 secondary school students in Spain, found that greater CLIL intensity was significantly associated with improved English language proficiency. Meadseena and Chano (2023) demonstrated, in a study of 40 eleventh-grade students, that the CLIL strategy yielded statistically significant improvements in both listening and speaking skills over traditional methods at $p \leq 0.05$. Sari et al. (2024) reported measurable CLIL-driven gains in writing, listening, and general English use among primary school students in Indonesia, albeit with identified weaknesses in reading for detail. Žanet (2015) similarly confirmed CLIL's positive effect on listening and written communication among 5th-grade pupils. In qualitative and mixed-method studies, Sudarso et al. (2024) affirmed CLIL's capacity to enhance motivation and language-content integration, while Metlí and Akis (2022) identified teacher preparedness and resource adequacy as key implementation challenges.

Despite this global evidence base, a significant research gap persists: the majority of CLIL studies are situated in European and Asia, focus on primary education or teacher perceptions, and rarely employ quasi-experimental designs to measure causal effects in ESL settings. Crucially, no study has specifically investigated the effect of CLIL on secondary school students' English academic performance in the under-resourced, non-bilingual educational environment of northern Nigeria. This study addresses that gap.

Statement of the Problem

The consistent decline in students' academic performance in Nigerian secondary schools, particularly within the Funtua Zonal Education, has become a major concern for educators, parents, and policymakers. Despite numerous educational reforms, many students continue to perform below expectations in internal and external examinations. A key factor responsible for this persistent underachievement is limited proficiency in English, the medium of instruction across all subjects, which impairs students' ability to comprehend subject content, engage in classroom discourse, and express understanding effectively (Okoro, 2017; Bature, 2020). Traditional teaching methods prevalent in the zone typically focus either on content delivery or language instruction in isolation, with little integration of both. This separation leaves students simultaneously deficient in language proficiency and subject mastery, as teachers

rarely possess the training or resources to address these dual learning needs. As a result, learners frequently fail to decode textbook materials, follow instructional language, or articulate responses during class activities and examinations (Abubakar & Msheha, 2025).

While the CLIL strategy offers a promising solution by merging language development with content instruction, empirical research on its implementation and effectiveness in the Nigerian secondary school system, especially within the Funtua Zonal Education Area, remains scant. It is therefore unclear whether this strategy can significantly enhance students' academic performance across the four core language skills: listening, speaking, reading, and writing. This study directly addresses that gap.

Objective of the Study

This study was guided by the following specific objective:

1. To determine the effect of the CLIL strategy on students' academic performance in listening skills in senior secondary schools in Funtua Zonal Education.

Research Question

The study seeks to answer the following research question:

1. What is the effect of the CLIL strategy on students' academic performance in listening skills in senior secondary schools in Funtua Zonal Education?

Hypothesis

The following null hypothesis were formulated and tested at $p \leq 0.05$:

1. There is no significant difference in the academic performance of students in listening skills between those taught using the CLIL strategy and those taught using the lecture method.

Methodology

A quasi-experimental design with a pre-test–post-test control group structure was adopted, as it is not feasible to achieve complete random assignment in school settings without disrupting the existing timetable. Two intact SS2 classes were purposively selected from different schools: one class constituted the experimental group (taught using the CLIL strategy) and the other constituted the control group (taught using the conventional lecture method). Both groups were administered the same pre-test and post-test instruments. The target population comprised all SS2 students in 23 senior secondary schools across the three local government areas, Funtua, Bakori, and Danja, of the Funtua Zonal Education, totalling 10,588 students (male = 6,472; female = 4,066), according to data from the Funtua Zonal Education Quality Assurance Office (2025). A purposive sampling technique was employed to select two schools based on equivalence in academic profile and school characteristics. The final sample comprised 95 students: 45 in the experimental group (School A) and 50 in the control group (School B).

The English Language Proficiency Test (ELPT) was used as the primary instrument, assessing students' performance across listening, speaking, reading, and writing skills before and after the intervention. Test items were adapted from standardised English proficiency tests to ensure validity (Bachman & Palmer, 2016). Content and face validity were established through expert

review by specialists in English Language Education, Curriculum and Instruction, and Educational Measurement and Evaluation. A pilot test was conducted with 30 SS2 students from GDSS Tandama a school in the population but excluded from the main sample, to assess item clarity and difficulty. The internal consistency of the instrument was confirmed using the Kuder-Richardson Formula, which yielded a reliability coefficient of 0.80, indicating good internal consistency.

Data collection followed a structured seven-week protocol. In week 1, both groups sat a pre-test under standardised conditions. Weeks 2 through 5 constituted the intervention phase: the experimental group received CLIL-based instruction on each of the four language skills (listening, speaking, reading, and writing) in successive weeks, while the control group received conventional lecture instruction on the same topics. Post-tests were administered in week 6. Independent samples t-tests were used to test hypothesis H0₁. All analyses were conducted using SPSS Version 21 at a 0.05 level of significance.

Results

Research Question: What is the difference in listening skills between students taught using the CLIL strategy and those exposed to the lecture method in senior secondary schools in Funtua Zonal Education?

Table 1: Mean and Standard deviation the post-test listening skills test scores in the experimental and control groups

	Group	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference
post-test listening skills	Experimental	45	16.49	.506	.075	4.009
	Control	50	12.48	1.129	.160	

Table 1 indicated that for mean scores, the experimental group, which was exposed to the CLIL strategy, achieved a mean post-test score of 16.49. This is substantially higher than the control group (lecture method), which achieved a mean score of 12.4. The mean difference between the two groups is 4.009, indicating that the CLIL strategy led to a higher level of listening skill acquisition. For variability, the standard deviations are relatively low for both groups (0.506 for CLIL and 1.129 for Lecture), suggesting that the scores within each group were fairly consistent. The CLIL group showed less variation in performance than the lecture group. Thus, the result confirms a positive effect of the CLIL strategy on students' listening skills compared to the traditional lecture method in the secondary schools studied.

Hypothesis: There is no significant difference in the academic performance of students in listening skills between those taught using the CLIL strategy and those taught using the lecture method.

Table 2: t-test Results — Listening Skills

Group	Mean	SD	t-value	df	p-value	Decision
Experimental	16.49	0.506	21.912	93	.000	Reject H ₀₁
Control	12.48	1.129				

The independent samples t-test results in table 2 reveal a statistically significant difference in listening skills performance between the experimental (CLIL) group and the control (lecture method) group. The experimental group recorded a substantially higher mean score ($M = 16.49$, $SD = 0.506$) compared to the control group ($M = 12.48$, $SD = 1.129$), yielding a t-value of 21.912 at 93 degrees of freedom and a p-value of .000, which is well below the 0.05 significance threshold. The null hypothesis H_{01} is therefore rejected. This finding indicates that the CLIL strategy produced a large, practically meaningful advantage in students' listening performance.

Discussion of Findings

The rejection of H_{01} , with a t-value of 21.912 ($p = .000$), demonstrates that the CLIL strategy produced a large, statistically significant advantage in listening skills over the lecture method. This finding aligns with Meadseena and Chano (2023), whose study reported significant CLIL-driven improvements in listening, and with Sari et al. (2024), who documented high listening performance among CLIL learners. By integrating language with actual subject content, the CLIL strategy encourages students to engage in 'top-down' processing, using content knowledge and contextual cues to comprehend academic English, rather than relying solely on decoding individual words. This is consistent with SLA theory's emphasis on comprehensible, meaning-rich input (Krashen, 1985) and Cognitive Load Theory's argument that germane load, productive cognitive engagement, is maximised when instruction is contextually meaningful (Sweller, 1988).

Conclusion

This study provides robust quasi-experimental evidence that the CLIL strategy significantly enhances English academic performance among senior secondary school students in the Funtua Zonal Education, Katsina State, Nigeria, in listening skills. The findings consistently demonstrated the superiority of CLIL over the conventional lecture method, confirming the strategy's capacity to simultaneously develop language proficiency and subject-matter understanding in a resource-constrained, multilingual Nigerian education.

Notably, CLIL was most effective for oracy skills (listening), where students achieved near-equivalent, high levels of mastery, while writing, though significantly improved over the control group, remained the most cognitively demanding skill and the most variable in performance. This intra-group skill hierarchy suggests that while CLIL offers an immediately effective model for developing oral communication and comprehension. This finding fill a significant gap in the CLIL literature by providing localised, empirical evidence from a

northern Nigerian secondary school, an under-researched setting where English language challenges and content mastery deficits are intertwined. It also validate theoretical predictions from SLA Theory, Cognitive Load Theory, and the ZPD framework regarding the mechanisms through which integrated instruction supports dual language and content acquisition.

Recommendation

Based on the findings of this study, the following recommendation was made:

1. English language teachers and subject-area teachers in senior secondary schools should integrate CLIL-based listening activities, including content-based audio materials, academic oral tasks, and structured discussion into regular classroom instruction. .

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