

A Quasi-Experimental Study on Code-Switching in Enhancing The Reading Comprehension Skills of ABEL Students

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DOI: <https://doi.org/10.69481/PAAY8920>

Abstract

This quasi-experimental study investigated the effectiveness of code-switching in enhancing the reading comprehension skills of ABEL (Alternative Basic Education for Literacy) students at Agusan del Sur State College of Agriculture and Technology. A two-group design was implemented, with one group receiving instruction incorporating code-switching and the other using traditional English-only methods. Standardized tests assessed reading comprehension, and data analysis included frequency, percentage, mean scores, t-tests, and ANCOVA. Results showed that students in the code-switching group achieved a significantly higher average score (7.48, "Very Satisfactory") compared to the control group (6.22, "Satisfactory"). This significant difference (p -value = .002) demonstrates that code-switching led to markedly improved reading comprehension skills. The study concludes that code-switching is a highly effective strategy for enhancing reading comprehension in ABEL students, offering a more impactful approach than traditional English-only instruction. The research recommends integrating code-switching into teaching practices to facilitate understanding of complex topics and language structures, ultimately contributing to a more accessible and effective learning experience for students. Future research is encouraged to explore the broader applicability of code-switching across diverse educational contexts to further inform pedagogical best practices.

Keywords: Code-Switching, Reading Comprehension, ABEL Students, Quasi-Experimental Design, Teaching Intervention

1. Introduction

Reading comprehension, a cornerstone of teaching and learning, involves understanding, analyzing, and applying information from written texts across various domains. Teaching this skill is particularly demanding when English is the medium of instruction in non-native speaker classrooms. Code-switching, the practice of alternating between two or more languages, has been proposed as a potential solution to this challenge (Espina & Ibojo, 2023; Rahayu, 2018; Hooff, 2018; Noorbar & Mamaghani, 2016; Bhatti et al., 2018).

Research has demonstrated the positive influence of code-switching on language acquisition. Noorbar and Mamaghani (2016) found a positive association between code-switching and learners' willingness to communicate, oral accuracy, and fluency. Rahayu (2018) showed a significant improvement in learning outcomes with the use of code-switching. In Malaysia, Bhatti et al. (2018) observed frequent code-switching in EFL classrooms and recognized its value as a teaching tool. In a local context, Espina and Ibojo (2023) reported that code-switching effectively improved college students' reading comprehension skills.

Despite these findings, many students, even at higher education levels, struggle with comprehension when English is the sole language of instruction. At Agusan del Sur State College of Agriculture and Technology, students often

prefer to code-switch or use their native language for class participation. Although the effectiveness of code-switching has been documented, its practicality in a local setting and its specific impact on reading comprehension skills warrants further investigation.

This study aims to examine the effectiveness of code-switching in enhancing reading comprehension in a local context. The findings will contribute both practically and conceptually to the field of teaching, informing teachers, administrators, and curriculum designers in their efforts to enhance students' reading comprehension skills.

The study will be conducted at Agusan del Sur State College of Agriculture and Technology, using a quasi-experimental two-group design. One group will utilize code-switching, while the other will employ traditional, non-code-switching methods. Pre-test and post-test results will be compared to evaluate the impact of both approaches on students' reading comprehension. It is anticipated that this research will yield valuable insights into the role of code-switching in improving reading comprehension in a local setting. These findings will inform effective teaching strategies and curriculum development to enhance students' reading skills.

Statement of the Problem

The study aims to assess the effectiveness of the code-switching approach in enhancing the reading comprehension skills of English students at Agusan del Sur State College of Agriculture and Technology. Specifically, it seeks to answer the following questions:

1. What is the level of reading comprehension skills of the students in both the experimental and control groups based on the pre-test and post-test results?
2. Is there a significant difference in the reading comprehension skills of the students between the pre-test and post-test results?
3. Is there a significant difference in the post-test reading comprehension skills between the control and experimental groups when controlling for pre-test scores?

Conceptual Framework

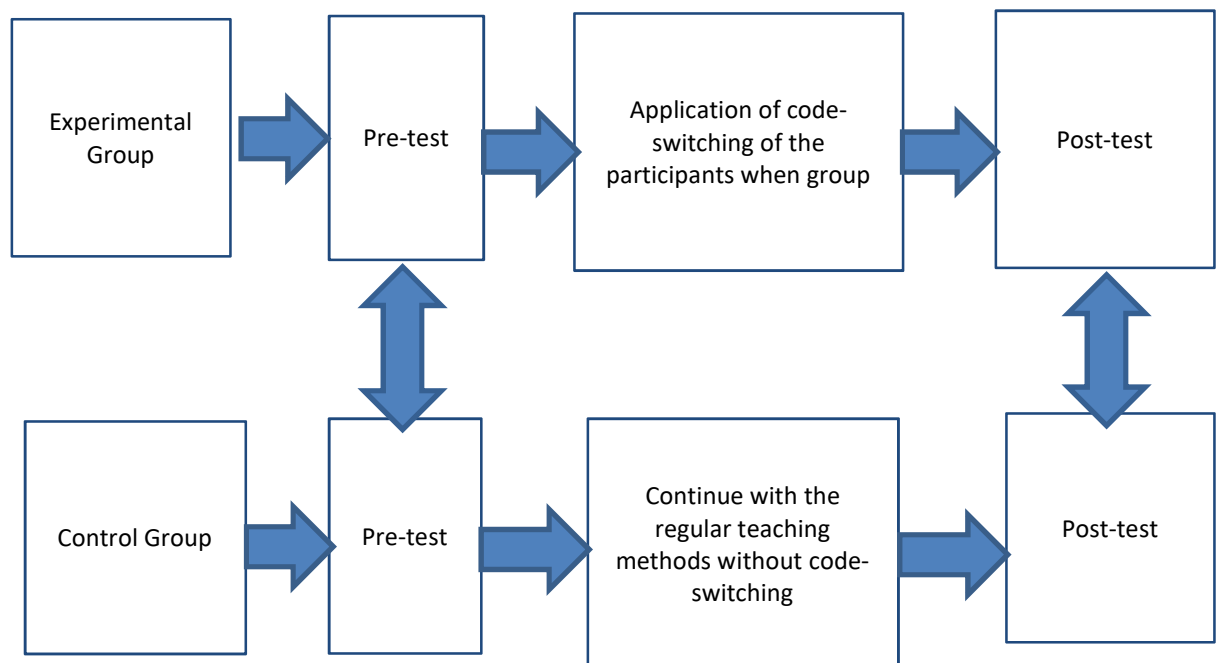


Figure 1 Research Paradigm

Figure 1 depicts the conceptual paradigm of a quasi-experimental design, where both the control and experimental groups are randomly assigned to undergo a pretest. The experimental group received an intervention where code-switching was applied during the lesson discussion. The control group will receive the same lesson discussion, but instruction will be conducted entirely in English, without any code-switching. After the intervention, both groups will take a post-test to measure the impact of the instructional method on their reading comprehension.

2. Literature Review

In the Philippines, although there are no explicit legal regulations on code-switching in language education, several foundational legal frameworks indirectly influence its practice. The 1987 Philippine Constitution's designation of English as an official language emphasizes the need for English proficiency, which may drive learners to code-switch between their native languages and English for effective communication and comprehension (Padua, 2000). The Bilingual Education Policy further fosters a bilingual environment, enabling natural language alternation depending on context (Jones, 2023). The K-12 program's focus on English language development may also influence code-switching frequency, with students using their native language to bridge understanding gaps (Padua, 2000). Finally, the MTB-MLE Policy supports the transition from native languages to English and Filipino, potentially influencing code-switching patterns as students progress (Armstrong, 2009).

Code-switching, the alternation between languages within a conversation, is a common bilingual phenomenon reflecting linguistic flexibility, social context, and communication needs (Myers-Scotton, 2009; Grosjean, 2012). It serves diverse purposes like expressing emotions, conveying cultural identity, or achieving communication goals. For example, a bilingual salesperson might switch languages to connect with a customer and then revert to their primary language for clearer explanations (Cárdenas, 2014). Code-switching also aids in managing complex ideas and facilitating comprehension, as when students use their native language to clarify English concepts (García, 2009).

The term "code" has evolved from its technical origins to encompass languages, dialects, and registers (Gardner-Chloros, 2009). Code-switching involves alternating between these for extended periods (Cheng & Butler, 1989; Sebba et al., 2012). Research shows it's a metacognitive process, translating cognitive inputs into communicative outputs based on environmental feedback (Gardner-Chloros, 2009). Psycholinguistic models explain how lemmas from different languages co-occur in code-switched speech (Wei, 2009).

Code-switching has linguistic, psycholinguistic, and sociolinguistic dimensions. It impacts language storage and retrieval (Stell & Yakpo, 2015) and serves distinct cross-cultural and linguistic functions (Molinsky, 2007). In bilingual discourse, it manipulates social situations, conveys nuances, and reinforces identity (Trudgill, 2000).

Educators must understand these dynamics. Recognizing the role of discourse and student backgrounds, teachers can facilitate learning by accommodating appropriate code-switching (Metila, 2009). However, overreliance can hinder target language immersion and affect proficiency (Sebba et al., 2012). Balancing code-switching as a tool with avoiding overdependence is key to optimizing its benefits for language development (Trudgill, 2000; Metila, 2009).

3. Methodology

The study adopted a quasi-experimental approach, justified by Jones (2023), who examined experimental research designs related to language contact phenomena like code-switching. Jones highlighted designs that effectively combine data collection techniques with robust analysis to generate novel insights into code-switching. The specific design employed was a group pre-test-post-test, with pre-tests administered at the outset and post-tests at the conclusion of each period under study (Padua, 2000). Data originated from pre-test and post-test results for each topic covered during the experiment.

Conducted at Agusan Del Sur State College of Agriculture and Technology (ASSCAT) during the summer of AY 2024-2025, the research involved second-year ABEL 2A and 2B students enrolled in the summer class of S.Y. 2025-2025. The institution's first-come, first-served policy dictated section assignments. The study took place in a natural classroom environment with heterogeneous groups, with section 2A having morning classes and 2B having afternoon classes in the middle of the week. These students possessed greater language instruction exposure, likely leading to more developed code-switching patterns. ANCOVA was employed to ensure participant comparability. Ethical considerations were upheld, with participants informed about the study's purpose and their right to withdraw, and their confidentiality protected.

Reading comprehension was assessed using standardized test items from the Victorian Department of Education, comprising 50 items in five pre-tests and five post-tests. This instrument aims to enhance college students' reading abilities, providing both an overall achievement measure and an estimate of capabilities. It complements other reading evaluation tools. Reading modules based on this test facilitated lessons. Pre-tests and post-tests gauged comprehension levels. The quasi-experimental research spanned July to August 2024, with five sessions per group. Learning activities centered on reading lessons, utilizing code-switching for the experimental group and straight English for the control group. Pre-tests preceded interventions, and post-tests followed.

The implementation procedure involved creating lesson plans from adapted reading materials, administering weekly pre-tests, conducting lesson discussions (with or without code-switching), and administering post-tests. Data analysis employed mean, standard deviation, t-tests, and ANCOVA to assess comprehension levels, compare scores, and evaluate group differences.

Table 1. Distribution of Participants

Participants	No. of Students
ABEL 2A	15
ABEL 2B	15
Total	30

4. Results & Discussions

Table 2. Level of Reading of Students under Code Switch Approach

Level	Pretest		Post-test		Mean Difference
	f	%	f	%	
Outstanding (10-9)			1	6.66	
Very Satisfactory (8-7)			12	80	
Satisfactory (6-5)	6	40	2	13.33	
Fair (4-3)	8	53.3	0	0	

Poor (2-1)	1	6.66	0	0	
Average Mean	4.36 (Fair)		7.48 (Very Satisfactory)		3.12

Table 2 presents the reading comprehension proficiency of the students employing the code-switching strategy based on the findings of the pre-test and post-test. As shown in the table, the students posted an average of 4.36 in a 10-item pre-test given before the teaching intervention. This level of performance is generally described as Fair based on the parameter used. Interestingly, the students achieved an average of 7.48 during the post-test, defined as very satisfactory. The mean score difference between the pre-test and post-test is 3.12, indicating a significant increase in learning performance before and after the teaching intervention using the code-switching approach.

Table 3. Learning Performance of Students Under Straight English

Level	Pretest		Post-test		Mean Difference
	f	%	f	%	
Outstanding (10-9)	0	0	1	6.66	
Very Satisfactory (8-7)	1	6.66	6	40	
Satisfactory (6-5)	5	33.33	6	40	
Fair (4-3)	8	53.33	2	13.33	
Poor (2-1)	1	6.66	0	0	
Average Mean	4.49 (Fair)		6.22 (Satisfactory)		1.73

In contrast, Table 3 shows that students who were taught solely in English demonstrated a fair level of reading comprehension, with an average mean score of 4.49 on the pre-test. Importantly, both the code-switching group (mean score 4.36) and the straight English group exhibited statistically similar pre-test scores, confirming the homogeneity of the samples and validating the unbiased selection process.

However, the post-test results reveal a key difference. The straight English group showed a mean score improvement of only 1.73, significantly lower than the 3.12 improvement observed in the code-switching group. This suggests that students exposed to multilingual strategies like code-switching demonstrated superior gains in reading comprehension compared to those taught exclusively in English.

Table 4. Test of Difference between Pre-test and Post-test

Group	Pretest	Post-test	Mean Difference	P-Value	Decision
Code Switching	4.36	7.48	3.12	.000	Reject Ho
Straight English	4.49	6.22	1.73	.015	Reject Ho

Table 4 presents the test of the difference between the pre-test and post-test results of the code-switching and the straight English using the t-test for independent samples. The results indicate a statistically significant difference in reading comprehension skills between the pre-test and post-test scores for both the code-switching group ($p = .000$) and the straight English group ($p = .015$). These p-values, being lower than the .05 significance level, confirm a notable improvement in reading comprehension for students in both groups, attributed to the teaching interventions. Furthermore, a comparison between the two groups reveals that students exposed to code-switching achieved superior levels of reading comprehension compared to those taught exclusively in English. This observation necessitates further statistical analysis using ANCOVA to examine the post-test results while accounting for any potential pre-existing differences between the groups.

Table 5. Analysis of Co-variance Between Post-test

Group	Post-test Increase	Mean Difference	t	df	P-Value	Decision
Code Switching	3.12	1.39	3.03	28	.025	Reject Ho
Straight English	1.73					

Table 5 shows that while the straight English group initially had higher gains in reading comprehension scores, the code-switching approach proved more effective when pre-test scores were considered. This statistical significance suggests code-switching facilitates better reading comprehension gains. The study also found that difficulties in word recognition and decoding play a role in reading struggles, aligning with Stanovich (2016)'s emphasis on accurate diagnosis for effective intervention. These results underscore the importance of implementing targeted strategies, particularly those incorporating code-switching, to address these challenges and improve students' overall academic performance.

5. Conclusion

In conclusion, this study demonstrates that incorporating code-switching into instruction significantly improves reading comprehension among ABEL students. The statistically significant difference in scores between the code-switching and standard English groups highlights the efficacy of this approach. These findings advocate for the integration of code-switching into teaching practices, offering a more effective pathway to enhance reading comprehension among ABEL learners compared to traditional English-only instruction.

6. Recommendations

In light of the study's findings, it is strongly recommended that educators actively integrate code-switching into their teaching methods. By strategically incorporating students' native language alongside the target language, teachers can create a more inclusive and supportive learning environment that fosters deeper understanding, particularly when tackling complex concepts or intricate language structures. This approach has been shown to significantly improve reading comprehension, suggesting its potential to enhance learning across a variety of subjects. Embracing code-switching as a pedagogical tool can empower students to bridge language barriers, make meaningful connections with the material, and ultimately achieve greater academic success.

Furthermore, this study underscores the importance of continued research into the broader applications of code-switching. Future investigations should explore its impact on student learning outcomes across different subject areas, grade levels, and instructional settings. A more comprehensive understanding of code-switching's effectiveness and potential benefits in diverse educational contexts will contribute to the development of evidence-based best practices for educators. This will ultimately lead to the creation of more inclusive and impactful teaching strategies that cater to the diverse linguistic and cultural backgrounds of students, promoting equitable access to quality education for all.

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