

The Effects of Teacher Code-Switching on Reading Comprehension in Algerian University EFL Classrooms

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Abstract:

Despite increasing advocacy for monolingual target-language instruction in English as a Foreign Language (EFL) pedagogy, teacher code-switching (CS) remains a common practice in Algerian university classrooms. This tension between English-only instructional ideals and the multilingual realities of Algerian higher education has attracted growing scholarly attention. While theoretical and empirical studies suggest that strategic CS can function as a pedagogical scaffold in EFL instruction, research examining its impact specifically on reading comprehension in Algerian tertiary contexts remains limited. This quasi-experimental study investigated the effects of teacher code-switching between English and Algerian Arabic on non-English major students' reading comprehension in university English reading classes. Participants included 92 second-year non-English major students from four faculties at Batna 2 University, Algeria, together with one experienced EFL instructor. The study employed a pretest–posttest design with non-equivalent groups: an experimental group exposed to strategic teacher code-switching during instruction and a control group receiving English-only instruction. After data screening, four incomplete responses were excluded, resulting in a final dataset of 44 participants in the experimental group and 48 in the control group. The two-week intervention included three instructional sessions followed by immediate reading comprehension tests focusing on vocabulary inference, main idea identification, and question-type accuracy. Additional data were collected through a Likert-scale questionnaire and semi-

structured interviews with the instructor and a subsample of students. Results indicated modest improvements in the experimental group; however, differences between groups were not statistically significant. Nevertheless, both the instructor and students reported positive attitudes toward teacher code-switching, viewing it as helpful for clarifying vocabulary, grammatical structures, and task instructions in multilingual Algerian EFL classrooms.

Key words: Algerian Arabic; teacher code-switching; reading comprehension; Algerian EFL context; quasi-experimental study

الملخص:

على الرغم من تزايد الدعوات إلى اعتماد التدريس باللغة الهدف فقط في مجال تعليم اللغة الإنجليزية كلغة أجنبية، لا تزال ظاهرة التناوب اللغوي من قبل الأساتذة ممارسة شائعة في أقسام اللغة الإنجليزية بالجامعات الجزائرية. وقد استقطب هذا التناقض بين مبادئ التدريس باللغة الإنجليزية فقط والواقع متعدد اللغات في التعليم العالي الجزائري اهتمامًا بحثيًا متزايدًا. وفي حين تشير الدراسات النظرية والتجريبية إلى أن التناوب اللغوي الاستراتيجي يمكن أن يؤدي دورًا مهمًا كوسيلة لدعم التعلم في تدريس الإنجليزية كلغة أجنبية، لا تزال الدراسات التي تبحث تحديدًا في أثره على الفهم القرائي في السياق الجامعي الجزائري محدودة. هدفت هذه الدراسة شبه التجريبية إلى بحث أثر التناوب اللغوي الذي يستخدمه الأستاذ بين الإنجليزية والعربية الجزائرية على الفهم القرائي لدى الطلبة غير المتخصصين في اللغة الإنجليزية خلال حصص القراءة باللغة الإنجليزية في الجامعة. شملت الدراسة 92 طالبًا من طلبة السنة الثانية غير المتخصصين في اللغة الإنجليزية، ينتمون إلى أربع كليات بجامعة باتنة 2 في الجزائر، إلى جانب أستاذ واحد متمرس في تدريس الإنجليزية كلغة أجنبية. واعتمدت الدراسة تصميم الاختبار القبلي والبعدي مع مجموعات غير متكافئة، حيث تعرضت المجموعة التجريبية للتناوب اللغوي الاستراتيجي أثناء التدريس، في حين تلقت المجموعة الضابطة التدريس باللغة الإنجليزية فقط. وبعد فحص البيانات، تم استبعاد أربع استجابات غير مكتملة، ليصبح العدد النهائي 44 مشاركًا في المجموعة التجريبية و48 في المجموعة الضابطة. وشمل التدخل، الذي امتد على مدى أسبوعين، ثلاث حصص تعليمية أعقبتها اختبارات فورية للفهم القرائي ركزت على استنتاج معاني المفردات، وتحديد الفكرة الرئيسة، ودقة الإجابة عن أنواع مختلفة من الأسئلة. كما جمعت بيانات إضافية من خلال استبيان قائم على مقياس ليكرت ومقابلات شبه موجهة مع الأستاذ وعينة فرعية من الطلبة. أظهرت النتائج تحسنًا محدودًا لدى المجموعة التجريبية، إلا أن الفروق بين المجموعتين لم تكن ذات دلالة إحصائية. ومع ذلك، عبّر كل من الأستاذ والطلبة عن مواقف إيجابية تجاه استخدام التناوب اللغوي من قبل الأستاذ، معتبرين أنه يساعد على توضيح المفردات والتركيب النحوية وتعليمات المهام في فصول تعليم الإنجليزية كلغة أجنبية متعددة اللغات في الجزائر.

الكلمات المفتاحية: العربية الجزائرية؛ التناوب اللغوي من قبل الأستاذ؛ الفهم القرائي؛ سياق تعليم الإنجليزية كلغة أجنبية في الجزائر؛ دراسة شبه تجريبية.

I. INTRODUCTION

Since the term *code switching* was first introduced by Hans Vogt in 1954, it has developed into a major topic of inquiry across multiple linguistic disciplines, including syntax, sociolinguistics, psycholinguistics, conversation analysis, and pragmatics. In educational contexts, interest in code switching intensified following the Bilingual Education Act, which stimulated scholarly attention toward bilingual pedagogical practices in language classrooms. In foreign language education, code switching is generally defined as the alternation between two or more languages within the same interaction or instructional event (Levine, 2003). As Ernesto Macaro observes, code switching in language classrooms often emerges when teachers attempt to balance target language exposure with pedagogical clarity, noting that teachers frequently “switch to the first language in order to facilitate understanding or maintain the flow of communication” (Macaro, 2001, p. 535).

Over the past several decades, scholars have increasingly examined the functions and pedagogical implications of code switching in English as a Foreign Language (EFL) context. Early classroom research demonstrated that the presence of the first language in instruction is neither uniform nor negligible. For example, Duff and Polio (1990) found that teachers’

use of students’ first language ranged widely across classrooms, sometimes reaching substantial proportions depending on pedagogical goals and learner proficiency. Similarly, Guthrie (1984) emphasized that the use of the native language in instruction varies according to contextual factors such as lesson objectives, classroom management needs, and students’ linguistic competence. These findings challenged earlier assumptions that effective language instruction should rely exclusively on target language input.

Subsequent research shifted toward examining the functional role of code switching within classroom interaction. Scholars have identified several pedagogical purposes, including clarification of complex concepts, explanation of vocabulary or grammatical structures, classroom management, and the facilitation of interpersonal rapport between teachers and students. As Wolfgang Butzkamm argues, the first language can operate as a powerful instructional resource, describing it as “a conversational lubricant which helps the teacher and learners move smoothly through difficult material” (Butzkamm, 1998, p. 90). Likewise, Anton and DiCamilla (1998) demonstrated that the first language can support collaborative learning processes by enabling learners to negotiate meaning and scaffold comprehension during task performance. Rolin Ianziti

and Brownlie (2002) further highlighted how teachers strategically employ learners' native language to facilitate explanation and maintain instructional efficiency.

In the Algerian context, the pedagogical functions of code switching acquire particular significance due to the country's complex multilingual environment. Algeria is characterized by the coexistence of several languages that operate within different sociolinguistic domains. Algerian Arabic functions as the dominant vernacular language of everyday communication, Modern Standard Arabic serves as the official language of administration and formal education, French continues to exert strong influence as a legacy of colonial history, and English is increasingly gaining importance within higher education and international academic exchange. Within such a linguistically layered environment, exclusive reliance on English in university EFL classrooms can present considerable challenges for both instructors and learners (Adder & Bagui, 2020).

Existing research in Algerian EFL settings has largely focused on teachers' and students' perceptions of code switching and the reasons motivating its use in the classroom. For instance, Adder and Bagui (2020) report that Algerian EFL instructors frequently experience a tension between institutional expectations promoting English only instruction and

the practical need to resort to the first language for explanatory purposes. Similarly, Henni (2017) found that students generally hold favorable attitudes toward the strategic use of Algerian Arabic during English lessons, particularly when it assists in clarifying unfamiliar vocabulary or complex instructions. More recent investigations have confirmed that code switching continues to function as a pragmatic instructional strategy in Algerian university classrooms despite prevailing ideological preferences for monolingual pedagogy (Benghalem, 2024; Khelalfa & Kellil, 2023).

Despite this growing body of literature, empirical research examining the measurable effects of teacher code switching on specific language skills remains limited in Algerian tertiary education. Most existing studies focus primarily on attitudes, classroom functions, or discourse patterns rather than learning outcomes. As Macaro (2001, p. 546) notes, "there is still relatively little empirical evidence demonstrating how teachers' switching between languages affects measurable learner performance." Within the Algerian context, experimental or quasi experimental studies investigating the relationship between teacher code switching and reading comprehension are particularly scarce.

Reading comprehension constitutes a central component of academic success in foreign language

learning because it provides learners with access to disciplinary knowledge, authentic texts, and global information resources. According to Stephen Krashen, extensive reading plays a crucial role in language development, as "reading is a powerful source of comprehensible input that can drive language acquisition" (Krashen, 1982, p. 20). For Algerian university students who often encounter limited exposure to English outside the classroom, the development of effective reading comprehension skills remains a significant pedagogical priority (Benghalem & Kamińska, 2024). However, vocabulary limitations, structural complexity, and interference from multiple linguistic systems frequently hinder students' ability to process English texts efficiently.

To address this gap in the literature, the present quasi experimental study integrates strategic teacher code switching between English and Algerian Arabic into university English reading instruction. By examining its effects on the reading comprehension performance of non-English major students at Batna 2 University, the study seeks to provide empirical evidence regarding the pedagogical value of controlled code switching in Algerian EFL classrooms. The findings are expected to contribute to ongoing debates concerning the role of the first language in foreign language instruction and to offer practical

insights for teachers operating in multilingual post-colonial educational contexts such as Algeria.

II. LITERATURE REVIEW

Code-switching (CS), defined as the alternation between two or more languages within a single interaction or communicative event (Levine, 2003), has long been a central topic in linguistic research since its early discussion by Vogt (1954). In foreign language education, particularly in English as a Foreign Language (EFL) context, attitudes toward CS have shifted considerably. While earlier pedagogical perspectives often viewed the use of the first language (L1) as a sign of linguistic deficiency, contemporary research increasingly recognizes it as a strategic instructional resource.

Early classroom studies revealed that the amount of L1 use varies considerably across teaching contexts. Duff and Polio (1990) found that teachers' use of the students' first language can range widely depending on pedagogical objectives, lesson content, and learners' proficiency levels. Similarly, Guthrie (1984) observed that L1 use is neither negligible nor uniform in language classrooms, challenging the traditional "English-only" approach to language teaching.

Subsequent research has emphasized the pedagogical functions of CS in facilitating language learning. Butzkamm (1998) argues that the first language can

function as a “conversational lubricant,” enabling teachers and learners to navigate complex material more efficiently. Anton and DiCamilla (1998) demonstrated that L1 use can support collaborative learning by allowing learners to negotiate meaning and scaffold comprehension during tasks. Likewise, Rolin-lanziti and Brownlie (2002) found that teachers strategically employ the L1 to explain instructions, clarify difficult concepts, and maintain classroom interaction. Macaro (2001) further notes that teachers often resort to the first language when necessary to ensure comprehension and maintain instructional continuity. These findings align with Krashen’s (1982) input hypothesis, which emphasizes the importance of comprehensible input in second language acquisition.

In multilingual contexts such as Algeria, where Algerian Arabic, Modern Standard Arabic, and French coexist, code-switching assumes particular pedagogical significance (Adder & Bagui, 2020). Research in Algerian EFL settings has primarily focused on teachers’ and students’ perceptions of CS. For instance, Adder and Bagui (2020) report that teachers often experience tension between institutional expectations of English-only instruction and the practical need to use the first language to facilitate understanding. Similarly, Henni (2017) found that students generally hold positive attitudes

toward CS, particularly when it is used to explain vocabulary and grammar. Khelalfa and Kellil (2023) also emphasize that strategic L1 use can play a valuable role in supporting comprehension and reducing learner anxiety in EFL classrooms.

Despite these insights, empirical research examining the direct effects of teacher code-switching on specific language skills remains limited. Macaro (2001) notes that relatively little empirical evidence demonstrates how teachers’ language switching influences measurable learner performance. In the Algerian tertiary context, most studies have focused on attitudes and classroom practices rather than measurable learning outcomes. Consequently, empirical investigations of how teacher code-switching affects reading comprehension among university students remain scarce.

This study seeks to address this gap by examining the effects of teacher code-switching on reading comprehension among non-English major students in Algerian university EFL classrooms.

III. Method

Based on the research background outlined above, the present study addresses the following

three research questions within the context of Algerian university English reading classrooms:

1. Can teacher code switching between English and Algerian Arabic improve students' reading comprehension? If so, to what extent does it influence reading comprehension performance?
2. If improvement occurs, which of the four major reading comprehension question types benefits most?
3. What attitudes do teachers and students hold toward the use of code switching in university English reading classrooms?

To investigate these questions, the study adopts a quasi-experimental design incorporating pre intervention and post intervention assessments alongside attitudinal data collection. This design enables comparison between instructional conditions involving strategic teacher code switching and those relying exclusively on English while maintaining the natural constraints of authentic classroom settings. Quasi experimental approaches are widely employed in educational research where random assignment is difficult to implement due to institutional and logistical limitations. In multilingual Algerian university contexts, such designs allow researchers to examine pedagogical practices without disrupting

existing instructional structures (Adder & Bagui, 2020).

The design also prioritizes ecological validity, since English only instruction is often difficult to sustain in multilingual environments where Algerian Arabic functions as the dominant language of everyday communication. Previous studies conducted in Algerian EFL classrooms indicate that teachers frequently resort to limited use of the first language to clarify instructions, explain complex lexical items, or resolve comprehension difficulties (Henni, 2017). Examining the pedagogical implications of this practice within authentic classroom conditions therefore provides valuable insights into its potential instructional value.

The first research question examines the overall impact of planned teacher code switching on students' reading comprehension performance. Previous research in foreign language education suggests that strategic use of learners' first language can serve as a scaffolding mechanism that facilitates comprehension while preserving meaningful exposure to the target language (Macaro, 2001). In Algerian universities, where non-English major students often experience limited contact with English outside the classroom, difficulties related to vocabulary knowledge, syntactic processing, and text interpretation frequently hinder reading

comprehension. Under such conditions, carefully controlled code switching may help learners overcome immediate comprehension barriers and support more effective engagement with English texts (Benghalem, 2024).

The second research question investigates whether teacher code switching exerts different effects across specific reading comprehension question types commonly used in Algerian university English modules. Four categories of questions are considered in this study: (a) vocabulary inference and word meaning questions, which require learners to determine the meaning of unfamiliar lexical items from context or identify synonyms; (b) main idea and gist comprehension questions that focus on identifying the central theme or topic sentence of a passage; (c) detail specific questions involving factual recall or recognition of explicitly stated information; and (d) inferential or reasoning questions that require learners to draw conclusions, interpret implied meanings, or identify cause and effect relationships within the text. These question types correspond to common assessment formats used in Algerian tertiary English courses, including multiple choice questions, gap filling tasks, true or false statements, matching exercises, and short answer responses (Ammour, 2018; Safia, 2020). It is possible that code switching may provide greater support for vocabulary related

and detail-oriented questions by offering immediate first language clarification, whereas inferential comprehension may depend more strongly on sustained target language processing (Khelalfa & Kellil, 2023).

The third research question addresses teachers' and students' attitudes toward the use of code switching in university English reading classrooms. Attitudinal perspectives are important because instructional practices are often shaped by teachers' pedagogical beliefs and students' learning preferences. In many EFL contexts, including Algeria, classroom attitudes frequently reflect a tension between institutional policies promoting exclusive target language use and the practical recognition that limited first language support can facilitate comprehension and reduce learner anxiety (Henni, 2017; Adder & Bagui, 2020). Understanding these perceptions therefore provides important contextual insight into the role of code switching within actual instructional practice.

Taken together, these research questions aim to bridge the gap between theoretical discussions of code switching and its practical implementation in Algerian university reading instruction. Although previous studies have explored the functions and perceptions of code switching in Algerian EFL classrooms, empirical evidence concerning its

measurable effects on reading comprehension outcomes remains relatively limited (Sekhri, 2020). The following sections therefore describe in detail the participants involved in the study, the instructional materials used, the experimental procedure, and the data collection instruments, including three immediate post lesson reading tests, a student questionnaire, and a semi structured teacher interview.

A. The Participants

The participants in this study consisted of 92 non-English major undergraduate students drawn from four parallel classes across four faculties (Faculty of Sciences, Faculty of Economics and Management, Faculty of Law and Political Sciences, and Faculty of Technology) at Batna 2 University, Algeria. All participants were second year students enrolled in compulsory English modules designed for non-English majors. Based on their previous English coursework and classroom performance, their overall proficiency level was estimated to correspond approximately to an intermediate level of English. The participants were between 19 and 22 years old, reflecting the typical age range of second year undergraduate students in Algerian universities.

The four classes were selected from five parallel groups taught by the same experienced EFL instructor during the academic semester. Selection was based on the previous semester's final English examination scores in order to ensure comparable academic performance among the groups. An independent samples t test confirmed that there were no statistically significant differences in average reading comprehension performance among the selected classes.

Following this verification, the researcher randomly assigned two classes to form the control group ($n = 46$) and the remaining two classes to form the experimental group ($n = 46$). Prior to the intervention, all participants completed a reading comprehension pretest designed to establish baseline equivalence between the two groups. An independent samples t-test conducted on the pretest scores indicated no statistically significant differences in reading comprehension performance between the control and experimental groups.

During the experimental phase of the study, the two groups received different instructional treatments during reading lessons. The control group was taught using English only instruction, consistent with conventional target language teaching practices. In contrast, the experimental group received instruction that incorporated strategic teacher code switching

between English and Algerian Arabic at selected moments to facilitate comprehension of vocabulary, textual meaning, and task instructions.

During data screening, four responses were excluded from the final statistical analysis due to incomplete test data. Consequently, the final dataset used for quantitative analysis consisted of 44 participants in the experimental group and 48 participants in the control group.

B. Instruments

The instructional and research materials used in the experiment consisted of four reading comprehension tests, three corresponding teaching texts, a student questionnaire, and a semi structured teacher interview.

The four reading comprehension tests were adapted from authentic university level EFL reading passages and question formats commonly used in Algerian compulsory English modules for non-English majors. These materials were designed to resemble the structure and difficulty level of reading tasks typically encountered in Algerian tertiary English courses. To maintain consistency across the tests, the readability level of the texts was controlled using the Flesch Reading Ease formula. The reading passages obtained scores ranging between 35 and 40, which correspond

to relatively difficult academic texts appropriate for intermediate to upper intermediate EFL learners (Torki, 2013). In addition, the reading passages were designed to be comparable in length, topic familiarity, and lexical difficulty to ensure consistency across the experimental sessions.

Each test consisted of two reading passages followed by ten multiple choice questions, yielding a total possible score of 100 points. The questions targeted four major reading comprehension skills commonly assessed in Algerian university English examinations: vocabulary inference, identification of main ideas, recognition of factual details, and inferential comprehension. These question types reflect the typical assessment formats used in Algerian tertiary EFL reading modules.

The three teaching materials consisted of the original reading passages associated with the first three reading comprehension tests. These texts were used during instructor-lead explanation sessions prior to each test. During these sessions, the instructor presented the texts and provided explanations of key vocabulary items, grammatical structures, and textual meanings. In the experimental group, strategic code switching between English and Algerian Arabic was incorporated during these explanations when clarification was considered pedagogically necessary.

To investigate students' perceptions of teacher code switching, a questionnaire was administered following the completion of the experimental sessions. The questionnaire was developed with reference to previously validated instruments examining attitudes toward code switching in Algerian EFL classrooms (Henni, 2017). The instrument consisted of three sections. The first section collected basic demographic information about the participants. The second section provided instructions and a brief explanation of the concept of code switching, including examples illustrating the alternation between English and Algerian Arabic in classroom discourse. The third section contained ten Likert scale items designed to measure students' perceptions and attitudes toward teacher code switching during reading instruction. Items 1 and 2 examined students' awareness of the presence of code switching in reading classes. Items 3 and 4 assessed general attitudes toward the use of code switching in English instruction. Items 5 to 8 investigated students' perceptions of its potential impact on reading comprehension, while items 9 and 10 invited students to express their preferences regarding the appropriate use of code switching in reading lessons.

In addition to the student questionnaire, a semi structured interview was conducted with the

participating instructor to gain deeper insight into teacher perspectives on code switching in reading classrooms. The interview protocol was adapted from previous studies investigating EFL teachers' beliefs and classroom practices related to first language use (Adder & Bagui, 2020). The interview included three main sections. The first section gathered background information about the instructor, including teaching experience and self-assessed English proficiency. The second section explored the teacher's perception of students' reading comprehension abilities and their estimated level of understanding when instruction is delivered exclusively in English. The third section focused on the instructor's attitudes toward code switching, the extent to which it is used during reading lessons, and the factors that influence decisions to switch languages in the classroom, such as text difficulty, student proficiency level, and instructional objectives.

C. Procedures

The experiment was conducted during regular class sessions in the participants' usual classroom environment. Due to scheduling differences among the four participating classes, the sessions were administered separately rather than simultaneously. The experimental procedures were implemented

collaboratively by the researcher and the regular EFL instructor responsible for teaching the selected classes.

At the beginning of each experimental session, reading test booklets and answer sheets were distributed to the students. Participants were informed that they should first listen carefully to the instructor's explanation of the reading passages before attempting to answer the questions. For clarity and to ensure that all participants clearly understood the instructions, the procedural guidelines were delivered in Algerian Arabic. Students were also informed that the test scores would contribute to their continuous assessment, which encouraged serious participation.

During the instructional phase preceding each test, the instructor provided a brief explanation of the reading passages. This explanation lasted approximately fifteen minutes. In the experimental group, the instructor incorporated strategic code switching between English and Algerian Arabic when explaining difficult vocabulary items, grammatical structures, cultural references, or task instructions. In contrast, the control group received the same explanations delivered exclusively in English, following an English only instructional approach.

Following the explanation stage, students were given eighteen minutes to complete the ten multiple choice

questions accompanying the reading passages. Upon completion, all answer sheets and test materials were collected immediately.

The same procedure was repeated over the following two weeks for the second and third experimental sessions. In each session, different but equivalent reading passages and comprehension questions were used to maintain consistency while preventing memorization effects. After the completion of the third session, the student questionnaire was distributed to all participants. Students were given approximately ten minutes to complete the questionnaire before it was collected. Subsequently, a semi structured interview was conducted with the participating instructor at a convenient time after the experimental sessions had concluded. The interview was audio recorded with the instructor's consent and later transcribed for analysis.

The quantitative data obtained from the reading comprehension tests were processed using the software package IBM SPSS Statistics. Descriptive statistics and independent samples t-tests were performed to compare the performance of the experimental and control groups. Responses from the questionnaire were summarized using percentage distributions to illustrate students' perceptions of teacher code switching. Finally, the interview transcript was analyzed through qualitative thematic

description to identify key patterns in the instructor's perspectives regarding the use of code-switching during reading instruction.

D. Results

➤ *The Impact of Code Switching on Students' Reading Comprehension*

Independent samples t-tests were conducted to compare reading comprehension scores between the experimental group, which received instruction incorporating strategic teacher code switching between English and Algerian Arabic, and the control group, which received English only instruction. Comparisons were performed for the pretest and for the three immediate post lesson reading comprehension tests. The results are presented in Table 1.

Table 1. *Independent Samples t-Test Results for Reading Comprehension Scores*

Test Phase	Group	N	Mean	Standard Deviation	p-value
Pre-test	Experimental Group	44	64.09	17.16	.743

	Control Group	48	66.25	20.17	
Immediate Test 1	Experimental Group	44	65.45	8.48	.672
	Control Group	48	66.46	13.76	
Immediate Test 2	Experimental Group	44	64.55	14.22	.890
	Control Group	48	65.00	17.01	
Immediate Test 3	Experimental Group	44	66.36	14.80	.864
	Control Group	48	65.83	14.85	

As shown in Table 1, all p values exceed the conventional significance threshold of 0.05 ($p_1 = .672$, $p_2 = .890$, $p_3 = .864$). These results indicate that no statistically significant differences were found between the experimental and control groups across any of the reading comprehension tests. The findings therefore suggest that the incorporation of teacher code switching did not produce measurable improvements in overall reading comprehension performance within the time frame of the intervention.

Nevertheless, a descriptive comparison of the mean scores reveals a slight trend across the three

post lesson tests. In the first two immediate tests, the experimental group performed slightly below the control group, with differences of 1.01 and 0.45 points respectively. However, the performance gap gradually narrowed across the sessions, and by the third immediate test the experimental group marginally exceeded the control group (66.36 compared with 65.83).

Although this difference is small and not statistically significant, it may suggest a descriptive tendency toward gradual adjustment to the instructional approach used in the experimental group. In multilingual classroom environments such as Algerian universities, where students frequently encounter lexical and structural difficulties when reading English texts, occasional first language clarification may help reduce immediate comprehension barriers and support smoother processing of the target language. As Macaro (2001, p. 535) notes, teachers often resort to the first language when they need to facilitate comprehension and maintain the continuity of classroom interaction.

The absence of statistically significant differences is consistent with previous findings reported in Algerian and broader EFL research contexts, where limited first language use assists comprehension and classroom interaction but does not necessarily produce large measurable gains in

short term experimental designs (Adder & Bagui, 2020; Khelalfa & Kellil, 2023).

Overall, the results indicate that while teacher code switching did not lead to statistically significant improvements in reading comprehension performance, the descriptive trend observed across the sessions suggests that limited first language support may assist learners in navigating complex reading tasks within multilingual university classrooms. This pattern may suggest a modest descriptive tendency toward improved comprehension following exposure to strategic teacher code-switching.

➤ *The Impact of Code Switching on Different Reading Question Types*

To examine differential effects across question types, as formulated in Research Question 2, accuracy rates (percentage of correct responses) were calculated for four reading comprehension categories: (a) inferential judgment questions, which require learners to draw conclusions, interpret implied meanings, or identify cause and effect relations; (b) factual detail questions involving recognition or recall of explicitly stated information; (c) word meaning questions focusing on vocabulary inference from contextual clues or identification of synonyms; and

(d) main idea questions requiring identification of the central theme or overall meaning of a passage. These question categories correspond to common assessment formats used in Algerian university English modules for non-English majors, where reading evaluation typically includes a combination of literal, inferential, and global comprehension tasks (Ammour, 2018; Torki, 2013).

The results are presented in Table 2, which reports percentage accuracy rates for both the experimental and control groups across the pretest and the three immediate post lesson tests.

Table 2. *Percentage Accuracy Rates by Reading Question Type: Experimental vs. Control Groups*

Question Type	Group	Pre-test (%)	Immediate Test 1 (%)	Immediate Test 2 (%)	Immediate Test 3 (%)
Inferential Judgment	Control Group	53.12	49.31	56.25	50.69
	Experimental Group	51.13	39.39	44.69	34.85
Factual	Control Group	64.58	68.75	65.00	61.46

Inferential Judgment	Experimental Group	60.98	65.91	65.45	70.45
	Control Group	85.41	81.25	79.17	89.58
Main Idea	Experimental Group	88.64	86.36	90.91	93.18
	Control Group	83.33	74.31	77.08	88.54
Detail	Experimental Group	84.09	84.09	93.18	92.05
	Control Group	84.09	84.09	93.18	92.05

As shown in Table 2, different patterns emerged across the four question categories. For inferential judgment questions, the experimental group consistently obtained lower accuracy rates than the control group across all test phases. The difference between the two groups widened over time, with the experimental group achieving 34.85 % accuracy in Immediate Test 3 compared with 50.69 % in the control group. This pattern suggests that teacher code switching did not appear to support students' performance on higher level inferential tasks, which often require sustained engagement with the target language in order to interpret implicit meanings and textual relationships. Similar observations have been

reported in Algerian EFL contexts, where inferential reading tasks tend to demand deeper processing of the target language structure and discourse organization (Khelalfa & Kellil, 2023). This result may reflect the higher cognitive demands associated with inferential reading processes, which often require sustained engagement with the target language and deeper semantic processing.

In contrast, more favorable outcomes were observed for several lower and intermediate level comprehension categories. For factual detail questions, the experimental group began with slightly lower accuracy rates than the control group in the pretest. However, the gap gradually narrowed during the experimental sessions and eventually reversed, with the experimental group achieving higher accuracy in Immediate Test 3 (70.45 %) compared with the control group (61.46 %). This trend may reflect the potential usefulness of brief first language clarification for identifying explicitly stated information within complex texts. In multilingual Algerian classrooms, teachers frequently rely on short explanations or translations to help students process specific textual details more efficiently (Adder & Bagui, 2020).

A similar pattern appears in the results for word meaning questions. The experimental group demonstrated consistently higher accuracy rates

across all test phases, with performance increasing from 88.64 % in the pretest to 93.18 % in Immediate Test 3. Vocabulary inference tasks often benefit from rapid clarification of unfamiliar lexical items, and occasional first language explanations may reduce lexical barriers that otherwise interrupt reading comprehension. This observation corresponds with findings in Algerian EFL research suggesting that strategic first language use can assist learners in interpreting unfamiliar vocabulary and contextual meaning within academic texts (Benghalem, 2024).

Main idea questions also show higher accuracy rates for the experimental group in the immediate post lesson tests. Although the difference between the groups was minimal in the pretest, the experimental group demonstrated noticeably higher accuracy during Immediate Tests 1 and 2. One possible explanation is that limited code switching may help learners grasp the overall structure and thematic organization of a passage when key ideas or topic sentences require clarification. Such clarification may assist learners in identifying global textual meaning without necessarily replacing engagement with the target language.

Taken together, these results suggest that teacher code switching may be more helpful for lower to mid-level comprehension processes, such as vocabulary recognition, factual detail identification, and overall

idea comprehension. By contrast, inferential interpretation appears to rely more heavily on sustained target language processing that may not benefit from brief first language explanations during instruction. This pattern is broadly consistent with the pedagogical view that strategic first language use can function as a scaffolding mechanism supporting certain aspects of comprehension while leaving deeper interpretive processes dependent on direct engagement with the target language (Macaro, 2001). These quantitative patterns are further illuminated by the attitudinal data collected through the student questionnaire and teacher interview, which are examined in the following subsection.

➤ *Teacher and Students' Attitudes Toward Code Switching in Reading Classrooms*

Analysis of the semi structured interview conducted with the instructor (Teacher A, an experienced EFL lecturer at Batna 2 University, Algeria) and the responses obtained from the student questionnaire revealed generally positive perceptions regarding the pedagogical use of teacher code switching in university English reading classes.

According to the interview data, Teacher A expressed supportive attitudes toward the strategic use of code switching, primarily from English to

Algerian Arabic, during reading instruction. She indicated that occasional first language explanations help students grasp the main ideas of reading passages, reinforce understanding of key details through familiar linguistic references, and facilitate the comprehension and retention of new vocabulary by providing immediate equivalents or contextual clarification. These perceived benefits correspond with commonly reported pedagogical practices in Algerian EFL classrooms, where limited exposure to English outside the classroom often necessitates selective first language support in order to maintain comprehension without substantially reducing target language input (Adder & Bagui, 2020; Henni, 2017).

Students' attitudes toward teacher code switching were examined through a post intervention questionnaire completed by all participants ($n = 92$), resulting in a response rate of 100 %. The questionnaire responses are summarized in Table 3 across four dimensions: awareness of code switching, general attitudes toward code switching, perceived effects on reading comprehension, and suggestions regarding its use in reading instruction.

Table 3. *Student Attitudes Toward Teacher Code Switching in Reading Classrooms*

Dimension	Item Nos.	A	B	C	D	E
Awareness of Code-Switching	1, 2	0	5.4	52.2	40.4	2.2
Attitudes Toward Code-Switching	3, 4	9	57.6	31.5	2.2	0
Perceived Impact on Reading Comprehension	5–8	4.7	55.1	26.3	12.4	1.4
Suggestions for Using Code-Switching	9	3	48.3	35.1	9.3	4.3
	10	36	45.3	15.1	3.6	0

Note. A = Strongly Agree; B = Agree; C = Neutral; D = Disagree; E = Strongly Disagree. Percentages are rounded and reflect aggregated responses across related items.

As shown in Table 3, most students expressed positive attitudes toward the use of teacher code switching during reading instruction. Within the Attitudes dimension (Items 3–4), 66.6 % of

respondents indicated agreement with the use of code switching in reading classes, including 9 % who strongly agreed and 57.6 % who agreed. Only a small proportion of students expressed disagreement (2.2 %), while 31.5 % remained neutral.

Similarly, in the dimension measuring perceived impact on reading comprehension (Items 5–8), 59.8 % of students reported that teacher code switching helped them better understand reading materials. These responses indicate that many students view occasional first language clarification as beneficial for interpreting vocabulary, grammatical structures, and textual meaning. Opposition to code switching remained relatively limited, with only 13.8 % of respondents expressing negative perceptions.

Responses related to instructional suggestions further reinforce this pattern. A substantial proportion of students indicated that code switching should be used in a moderate and strategic manner during reading lessons. For example, Item 10 revealed that 81.3 % of respondents agreed or strongly agreed that teacher code switching should be employed selectively when necessary to facilitate comprehension.

Taken together, the questionnaire findings suggest that students generally perceive teacher code switching as a helpful instructional strategy within university English reading classes. These attitudes

correspond with previous findings in Algerian EFL research, which indicate that students often appreciate limited first language support when it assists comprehension without replacing exposure to English (Henni, 2017; Khelalfa & Kellil, 2023).

The instructor's positive perspective reinforces these student perceptions. From the teacher's viewpoint, code switching provides practical pedagogical support for clarifying vocabulary, reinforcing key details, and guiding students toward a clearer understanding of the main ideas in complex reading passages. These functions are particularly relevant in compulsory English courses for non-English majors, where students frequently demonstrate varied proficiency levels and limited exposure to English outside the classroom.

Overall, the attitudinal findings complement the quantitative results presented in Sections 3.1 and 3.2. Although the statistical analysis did not reveal significant differences in overall reading comprehension performance, the positive perceptions expressed by both the instructor and students indicate that code switching may contribute to improved classroom interaction, increased learner confidence, and enhanced comprehension processes in multilingual Algerian EFL settings.

IV. CONCLUSION

Based on the analysis presented above, the present study yields three principal conclusions regarding the pedagogical role of teacher code switching in Algerian university English reading classrooms for non-English majors.

First, no statistically significant differences were observed in overall reading comprehension performance between the experimental group, which received instruction incorporating strategic code switching, and the control group, which received English only instruction, across the pretest and the three immediate post lesson tests (all p values > 0.05). Nevertheless, a comparison of the mean scores revealed a modest descriptive trend. The experimental group performed slightly below the control group in the first two immediate tests, yet the difference between the groups gradually narrowed. By the third immediate test, the experimental group marginally surpassed the control group by 0.53 points. Although this difference was not statistically significant, it may suggest that strategic teacher code switching between English and Algerian Arabic provided a limited supportive role for students' reading comprehension within this multilingual instructional context.

Second, the analysis revealed differential patterns across reading comprehension question types. Except for inferential judgment questions, where the experimental group consistently demonstrated lower accuracy rates than the control group, the experimental group showed comparatively stronger performance in main idea, factual detail, and word meaning questions following exposure to teacher code switching. The most noticeable differences appeared in vocabulary inference and main idea identification tasks. These findings suggest that code switching may be particularly useful in supporting lower to mid-level reading comprehension processes that depend on explicit clarification of vocabulary and textual meaning, while higher order inferential interpretation appears to rely more heavily on sustained engagement with the target language.

Third, both the instructor and most students expressed generally positive attitudes toward the use of teacher code switching in university English reading instruction. According to the teacher interview, code switching was perceived as a practical strategy for helping students understand the central ideas of reading passages, reinforce important details, and acquire new vocabulary more effectively. The questionnaire responses similarly indicated that most students viewed teacher code switching as beneficial for facilitating comprehension, particularly in a

learning environment where Algerian Arabic functions as the dominant language of daily communication. Approximately two thirds of the students expressed positive attitudes toward its use, while only a small proportion reported negative perceptions.

Drawing on these findings, several pedagogical implications may be considered for the use of code switching in Algerian EFL reading classrooms. First, because many non-English major students in Algerian universities possess relatively limited exposure to English outside the classroom and often experience interference from multiple linguistic systems, exclusive reliance on target language instruction may not always ensure effective comprehension. Under such circumstances, carefully controlled teacher code switching may provide temporary linguistic support that enables students to access complex reading materials more effectively while maintaining engagement with the target language.

Second, the effectiveness of code switching appears to depend on its selective and context sensitive use. Teachers should therefore regulate both the timing and frequency of first language explanations according to students' proficiency levels and instructional objectives. When employed strategically to clarify unfamiliar vocabulary, complex

grammatical structures, cultural references, or task instructions, code switching may facilitate comprehension without substantially reducing opportunities for meaningful exposure to English.

In conclusion, although the results of the present study do not demonstrate statistically significant improvements in overall reading comprehension performance, the descriptive performance trends, the differential effects observed across specific question types, and the positive perceptions expressed by both teachers and students suggest that teacher code switching may serve as a pragmatic pedagogical resource in multilingual university classrooms. Future research could extend this line of investigation by examining longer instructional interventions, larger participant samples across multiple Algerian universities, or the integration of code switching with additional reading instruction strategies to further clarify its role in supporting EFL reading development in multilingual educational contexts.

V. LIMITATIONS OF THE STUDY

Despite the insights provided by the present investigation, several limitations should be acknowledged. First, the duration of the intervention was relatively short, consisting of three instructional

sessions conducted within a limited time frame. A longer experimental period may have allowed students more time to adapt to the instructional approach and might have produced clearer effects on reading comprehension performance.

Second, the sample was restricted to non-English major students from a single Algerian university. Although the participants represented different academic faculties, the findings cannot necessarily be generalized to all Algerian EFL contexts or to students with different linguistic backgrounds and proficiency levels. Future studies involving larger and more diverse samples across multiple universities would provide stronger empirical evidence.

Third, the analysis of reading question types relied primarily on descriptive accuracy rates rather than inferential statistical testing. While the patterns observed provide useful insights into potential differences across comprehension processes, further research employing more advanced statistical analyses could offer more precise evaluation of these effects.

Finally, the study focused specifically on short-term reading comprehension outcomes. Other important dimensions of language development, such as long-term vocabulary retention, reading strategy use, or learner engagement, were not examined. Future research could therefore investigate how

strategic teacher code-switching influences a broader range of language learning outcomes over extended instructional periods.

VI. DIRECTIONS FOR FUTURE RESEARCH

Future research may expand upon the findings of the present study in several ways. First, longitudinal studies examining the effects of teacher code switching over longer instructional periods would provide a clearer understanding of its potential impact on the development of reading comprehension skills. Extended interventions may reveal whether the modest trends observed in this study become more pronounced as learners gradually adapt to instructional strategies that incorporate controlled first language support.

Second, further investigations could involve larger participant samples drawn from multiple Algerian universities to enhance the generalizability of the findings across different institutional and sociolinguistic contexts. Comparative studies between universities or between different academic disciplines may also reveal whether the pedagogical role of code switching varies according to students' language proficiency levels or academic needs.

Finally, future research could explore the interaction between teacher code switching and other

instructional variables, such as explicit reading strategy training, vocabulary instruction, or digital reading environments. Integrating these approaches may provide deeper insights into how strategic first language use can be combined with other pedagogical techniques to support EFL reading development in multilingual university contexts.

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LIST OF TABLES

Table 1. *Independent Samples t-Test Results for Reading Comprehension Scores*

Table 2. *Percentage Accuracy Rates by Reading Question Type: Experimental vs. Control Groups*

Table 3. *Student Attitudes Toward Teacher Code Switching in Reading Classrooms*