



Code-Switching As a Cognitive Strategy in Learning English Speaking Skills across Interactional Contexts: Insights from EFL University Students

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Abstract

Code-switching (CS) is gradually recognized as a critical cognitive strategy in language acquisition, especially in English speaking skills. This study investigates how EFL students use CS across interactional contexts, which cognitive strategies are dominant when using CS and how they generally perceived the role of as a cognitive strategy in English-speaking activities. The study integrates mixed techniques including questionnaire, semi-structured interviews and classroom observation. The quantitative data is collected from 45 sophomore students majoring in English at Industrial University of Ho Chi Minh City (IUH). The findings indicate that CS is used across different interactional settings widely. Notably, there was balance CS use between student-student and student-teacher. Besides, CS often occurred in pair work rather than group work and when discussing complex speaking topics. Cognitive strategies emerged as the dominant mechanism driving CS usage including brainstorming, organizing ideas and language retrieval during speaking tasks. Furthermore, the results confirmed their positive perspectives on CS' role as a beneficial cognitive and communicative resource that helped them organize ideas, maintain communication, clarify meaning, and participate more confidently in English-speaking activities. The study suggests that CS should be viewed not as a deficiency but as a valuable pedagogical and cognitive resource in language to enhance teaching effectiveness and English-speaking skills as well.

Keywords: Code-switching, cognitive strategy, EFL, speaking skills, sophomore students

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1. Introduction

Speaking is widely regarded as one of the most demanding skills for learners of English as a Foreign Language (EFL), requiring not only linguistic knowledge but also real-time interaction, strategic language use, and considerable cognitive processing [1]. At the university level, these demands intensify: students must generate complex ideas, sustain logical argumentation, and manage the conceptualization and formulation stages of speech production simultaneously. Fear of making mistakes, anxiety, and limited confidence often compound these cognitive pressures [2], [3], leading many learners to alternate between their first language (L1) and English (L2) during communication-a behavior known as code-switching (CS) [4].

CS has traditionally been viewed with suspicion in EFL classrooms, framed as a sign of linguistic deficiency that reduces learners' exposure to the target language [5]. More recent scholarship, however, challenges this deficit view. Drawing on cognitive and sociocultural perspectives, researchers argue that CS functions as a strategic resource that helps learners manage cognitive load, deepen understanding, and sustain communication [6], [7]. From this standpoint, strategic use of L1 may reflect higher-order cognitive processes-planning, problem-solving, and self-regulation that are essential to oral language production [8]. Also, it may help learners compensate for gaps in L2 proficiency without breaking down communication [9].

Despite this shift in perspective, how CS operates as a cognitive strategy across different interactional contexts-such as pair work, group work, and interactions with teachers versus peers remains underexplored, particularly among EFL university students. In the Vietnamese context specifically, speaking is consistently identified as one of the most difficult skills for learners, who often struggle to organize ideas, sustain communication, and speak confidently due to limited linguistic resources and the cognitive demands of real-time processing ([10]; [11]). Students frequently rely on their mother tongue to bridge these gaps, yet CS use in EFL classrooms remains a contested practice: some scholars caution that overreliance on L1 reduces target-language exposure [12], [13], while others view it as a judicious strategy that supports information processing and idea structuring [14]. Much of the existing research, however, concentrates on teachers' instructional practices or general classroom perceptions [15] rather than on how learners themselves deploy CS during specific speaking tasks as a cognitive strategy.

This study aims to explore the role of CS as a cognitive strategy in developing English-speaking skills among university EFL students across different interactional contexts. It examines students' perceptions of CS's benefits and drawbacks, particularly its role in supporting idea generation, communication, reducing speaking anxiety and whether it influences L2 proficiency or not. The findings are expected to provide useful empirical evidence on the pedagogical value of strategic L1 use and recommend flexible EFL teaching practices at the tertiary level.

In order to achieve the mentioned objectives, the research focuses on: (1) reviewing Code-switching's theoretical background in second language acquisition; (2) examining the frequency and purposes of CS use across different speaking interactional contexts, including teacher-student, student-student, pair work and group work activities; (3) identifying the cognitive strategies underlying CS use and their perceived effects on students' speaking skills.

Theoretically, the study contributes to reframing CS as a purposeful cognitive strategy rather than a learning deficiency. Practically, its findings offer EFL instructors empirical grounds for adopting more flexible, learner-centered speaking pedagogies that align with learners' cognitive needs, ultimately supporting idea development, communicative confidence, and overall English proficiency.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Definitions of Code-switching

CS has been conceptualized from multiple linguistic perspectives. Early research characterized it structurally, as the alternation between two or more languages within a single

communicative event without necessarily changing topic or purpose [16], [17]. Sociolinguistic accounts instead frame CS as a socially situated practice shaped by the relationship between speakers and listeners [18], while more recent work describes it as a communicative behavior jointly shaped by linguistic, cognitive, and social factors rather than a purely structural pattern [19]. Building on these perspectives, the present study defines CS as learners' intentional alternation between Vietnamese (L1) and English (L2) during classroom interaction to achieve communicative, pedagogical, or social purposes, a definition that captures both the structural and functional dimensions of the phenomenon. Structurally, CS is commonly classified into intra-sentential, inter-sentential, and tag-switching types [16], a framework this study adopts for its practicality in categorizing classroom speech data, in contrast to more grammar-focused typologies such as [20]'s insertion-alternation-congruent lexicalization model.

2.2 Cognitive and Motivational Functions of Code-Switching

Beyond its structural forms, CS serves varied communicative and cognitive functions. Early sociolinguistic accounts attributed CS to speakers' communicative goals, social context, and interpersonal relations [17], including reducing social distance with interlocutors [21] and responding to situational or participant-related influences [22]. More recent research reframes CS explicitly as a cognitive strategy: switching languages allows learners to think through complex content in their L1 before producing it in English, supporting meaning construction and real-time cognitive processing [23]. Related work on bilingual cognitive control suggests that habitual language-switching is linked to gains in cognitive flexibility [24], while Vietnamese-context studies similarly describe CS as a strategic choice that helps learners blend L1 and L2 to process information and simplify classroom interaction [25].

2.3 Speaking Skills and Interactional Contexts

Speaking is a demanding productive skill that requires learners to simultaneously manage idea formation, vocabulary, grammar, and pronunciation in real time [26], while adapting language use to communicative purpose and interactional context [27]. EFL learners commonly face speaking-related anxiety stemming from time pressure and limited linguistic resources [28], a challenge well documented among Vietnamese university students [10]. The interactional context in which speaking occurs pair work, group work, or whole-class discussion, and interaction with peers versus teachers-shapes both communicative demands and the strategies learners deploy [26], [29]. Pair work, for instance, increases speaking time and reduces psychological pressure, while group work fosters collaboration and idea development, both of which may create distinct conditions for CS use; peer interaction in particular tends to involve less pressure than student-teacher exchanges, making CS more likely to occur naturally [30]. Topic variation further influences communicative demands and, in turn, the extent of CS use [31].

2.4 Theoretical Framework

Several complementary theoretical perspectives inform this study's understanding of CS as a cognitive strategy. [1]'s Speech Production Model conceptualizes speaking as unfolding through conceptualization, formulation, and articulation stages; when L2 competence is insufficient, switching to L1 can support the conceptualization stage without being constrained by linguistic limitations [32]. [33]'s Cognitive Load Theory further suggests that L1 use can

reduce the cognitive burden of managing meaning, vocabulary, grammar, and listener feedback simultaneously, freeing cognitive resources for target-language communication [34]. [35]’s Sociocultural Theory frames language as a mediational tool for organizing thought, positioning CS as scaffolding that helps learners bridge the gap between current and potential competence within their Zone of Proximal Development (ZPD), particularly in collaborative dialogue with peers or teachers [36], [37], [38], [39], [40]. Finally, Language Learning Strategies and Self-Regulated Learning frameworks [41], [42] position CS as a multi-functional strategy operating cognitively, metacognitively, and emotionally helping learners process ideas, regulate their own speech production, and manage communicative anxiety. Taken together, these frameworks suggest that CS functions simultaneously as a cognitive aid, a social mediation tool, and a self-regulatory strategy, though none alone fully accounts for how its use might vary across interactional contexts—a gap this study addresses by integrating these perspectives.

2.5 Previous Studies and Research Gaps

Internationally, research on CS has generally followed two lines. A dominant pedagogical and discourse-functional line documents how L1 use helps learners negotiate meaning and maintain communication in task-based speaking [37], [43], without explicitly investigating the specific cognitive strategies: planning, self-monitoring, inferencing that CS reflects. A smaller psycholinguistic line, informed by the Adaptive Control Hypothesis, frames CS as an adaptive language-control strategy that shifts with interactional context [44], yet rarely compares CS systematically across teacher-student and peer interactions.

In Vietnam, research has been predominantly teacher-centered, examining instructors’ use of L1 for instructional or classroom-management purposes ([45]; [46]; [47]). Learner-focused studies remain scarcer: Sampson [48] and Luong [49] found that CS supports learning and reduces anxiety, though without linking these benefits closely to cognitive processes, while [50] examined non-English-major students’ attitudes toward CS and its relation to proficiency, but with a small sample and a general-attitude focus rather than skill-specific or interactional analysis.

Synthesizing this literature reveals that while CS is broadly recognized as beneficial, existing research stops short of explaining how it functions as a cognitive strategy, how its use varies across interactional conditions, and how it relates to the development of a specific productive skill such as speaking—particularly among Vietnamese EFL university students. This study addresses these gaps by examining CS use, its underlying cognitive strategies, and learners’ perceptions of its role across interactional contexts in English-speaking activities.

2.6 Research Questions

1. How do EFL university students use CS in learning speaking skills across interactional contexts? (RQ1)
2. Which cognitive strategies underlying CS are dominant in these contexts? (RQ2)
3. How do EFL students perceive the role of CS as a cognitive strategy in supporting English-speaking skills across different interactional contexts? (RQ3)

3. Methods

3.1 Pedagogical Setting & Participants

This study was conducted at the Faculty of Foreign Languages, Industrial University of Ho Chi Minh City (IUH), Vietnam, targeting sophomore English-major students enrolled in a speaking skills module during Semester 1 of the 2025-2026 academic year. In this setting, students regularly engaged in pair work, group work, and classroom presentations, which provided frequent opportunities for teacher-student and student-student interaction and made the context suitable for observing CS behavior in naturally occurring speaking activities.

A total of 45 sophomore English-major students participated in the questionnaire survey. Participants were selected through convenience sampling based on their accessibility and enrollment in the target speaking course, following Creswell [51]; this approach was considered appropriate given the study's exploratory and descriptive aims rather than a generalizing purpose. Inclusion criteria required participants to be sophomore English majors enrolled in a speaking course who voluntarily agreed to take part; incomplete responses were excluded.

The same 45 students, organized into 22 pairs and 7 groups, were observed across seven 45-minute speaking lessons covering varied topics and tasks (discussions, role-plays, presentations, and problem-solving activities). Following the survey and observation phases, ten students were purposively selected for semi-structured interviews based on their willingness to participate, active classroom involvement, and variation in observed CS patterns, ensuring diverse perspectives across interactional preferences. Interview participants were coded S1-S10 to preserve confidentiality.

3.2 Design of the Study

This study adopted an explanatory sequential mixed-methods design [43], in which quantitative data were collected and analyzed first, followed by qualitative data collection to explain, elaborate, and deepen the quantitative findings. This design allowed the researcher to capture broad statistical patterns of CS use while also obtaining rich contextual explanations of the cognitive strategies underlying it.

Three instruments were employed. The questionnaire consisted of four sections covering demographic information, frequency of CS use (addressing RQ1), cognitive strategies and interactional contexts underlying CS (RQ2), and students' perceptions of CS's role (RQ3), using a five-point Likert scale alongside multiple-choice and open-ended items. It was adapted from established CS instruments [48], [52], translated bilingually between Vietnamese and English to ensure comprehension, reviewed by the supervisor, and piloted with five students before administration to the full sample.

The classroom observation checklist comprised five sections recording contextual information, interactional relationships such as student-student or student-teacher, forms and timing of CS, and its cognitive and communicative functions and observable outcomes. It was developed based on the study's theoretical framework, drawing on [1]'s Speech Production Model, Cognitive Load Theory [33], and Sociocultural Theory [35].

The semi-structured interview protocol contained three sections corresponding to the three research questions, adapted from themes in previous CS research [37], [43] and reviewed by two experienced lecturers prior to use. Each interview lasted approximately 30 minutes and included 13 questions conducted in Vietnamese to facilitate natural and students' in-depth responses.

Content validity for all instruments was established through expert or supervisor review and pilot testing. Internal consistency of the questionnaire scales was confirmed via Cronbach's Alpha ($\alpha = .81-.84$), exceeding the acceptable threshold of .70. Across all three instruments, methodological triangulation-cross-checking findings from the questionnaire, observations, and interviews were used to strengthen the credibility and trustworthiness of the results.

3.3 Data collection & analysis

Prior to data collection, ethical approval and permission were obtained from the Faculty of Foreign Languages and the relevant course lecturers. Participation was voluntary and based on informed consent, with participants' identities anonymized throughout the study. Data were collected in three sequential stages: the questionnaire was administered first during regular class hours lasting 10-15 minutes per participant, followed by seven weeks of classroom observation with audio-recorded pair work and group work discussions, and finally four weeks of semi-structured interviews with the ten selected volunteers. All recordings were transcribed and coded using participant identifiers as S1-S10 to protect confidentiality.

Quantitative data were analyzed using SPSS version 27. Descriptive statistics including frequencies, percentages, means, and standard deviations were used to summarize participants' demographic profiles and CS-related responses, with mean scores interpreted on a five-band scale from Very Low to Very High. Chi-square tests of independence were additionally conducted to examine associations between demographic variables and CS behaviors, with significance set at the .05 level.

Qualitative data from observations and interviews were analyzed using thematic analysis [53], following its six standard phases-familiarization, initial coding, theme searching, theme review, theme definition, and report production-to identify recurring patterns in students' CS practices and perceptions. Consistent with the explanatory sequential design, quantitative and qualitative findings were subsequently integrated: questionnaire results provided an overall picture of CS use, observation data verified consistency between reported and actual classroom behavior, and interview data offered deeper explanations for the patterns identified, together enabling a comprehensive, triangulated response to the three research questions.

4. Results

4.1 Reliability of the Questionnaire

Table 4.1: Reliability Statistics

Scale	Number of items	Cronbach's Alpha	Interpretation
Cognitive strategies underlying CS	7	0.843	Good

Student's perspectives of CS role	4	0.812	Good
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Table 4.1 shows Cronbach's Alpha coefficient in the questionnaire result. It ranged from 0.81 for 4 items to 0.84 for 7 items. The results reflected the high level of internal consistency. The two values exceeded the recommended threshold of 0.70, determining the reliability of the questionnaire.

Participant information

Table 4.2: Participants' demographic information

No .	Features	Descriptions	N=45	Percentage (%)
1	Age	19-year-olds	41	91%
		20-year-olds	3	7%
		21-year-olds	1	2%
2	Gender	Female	33	73%
		Male	12	27%
3	Years of learning English	Under 7 years	9	20%
		From 7 to 10 years	24	53%
		Above 10 years	12	27%
4	Students' self-assessment to English speaking skills	Excellent (9.0-10)	0	0%
		Good (8.0-8.9)	5	11%
		Fair (7.0-7.9)	24	53%
		Average (5.6-6.9)	15	33%
		Below Average (4.0-5.5)	1	2%
		Poor <4.0)	0	0%

Table 4.2 summarized the demographic profile of the 45 participants. The sample relatively was age-homogeneous, with 91% aged 19. Female gender predominated (73%), reflecting the typical gender distribution of English-major cohorts. Furthermore, most students had studied English for 7-10 years (53%), yet their self-assessed speaking proficiency remained modest with 53% rated themselves at the Fair level (7.0-7.9) and 33% at Average (5.6-6.9) and there was no one reaching Excellent band. This gap between years of study and speaking confidence provides contextual grounding for why students may rely on cognitive strategies such as CS.

4.2 Results of Research Question 1

4.2.1 Questionnaire findings

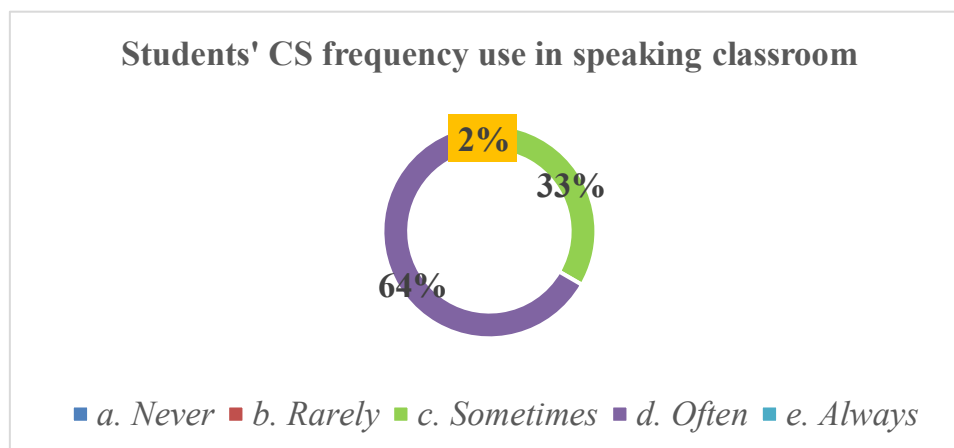


Chart 1: Students' switching between English and Vietnamese frequency

As shown in Chart 1, 64.4% of students reported switching between English and Vietnamese Often, 33.3% Sometimes, and only 2.3% Rarely, indicating that 97% of students use CS at least occasionally. This confirms CS as a widespread classroom strategy rather than isolated individual behavior.

Table 4.3: Frequency of CS use across communicative interlocutors

The occurrence of CS	Frequency (N)	Percentage
a. With Teachers mostly	8	18%
b. With peers mostly	11	24%
c. Equally with teachers and peers	26	58%

Table 4.3 reports the frequency distribution results of CS usage among students. The result revealed that the option "Equally with teachers and peers" accounted for the highest proportion of responses (58%), followed by "With Teachers mostly" (24%) and "With peers mostly" (18%). This variance reflected that CS was not tilted to a certain interaction context, but it tended to occur relatively equal between students-students and students-teachers speaking context. With respect to the descriptive statistics, this distribution indicated that learners preferred to "balance use" tendency to CS.

Table 4.4: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.400 ^a	2	0.002
Likelihood Ratio	12.087	2	0.002
N of Valid Cases	45		

A chi-square goodness-of-fit test confirmed this distribution was statistically significant ($\chi^2 = 12.400$, $df = 2$, $p = .002$), indicating that the interlocutor, especially teacher and peer interaction does not determine whether students switch codes.

Table 4.5: CS use across speaking activities

CS use by typical activities	N	Percentage %
Pair work	39	79.6%
Group work	5	10.2%
Pair work and Group work	4	8.2%
I rarely use Vietnamese	1	2.0%
Others	0	0.0%
Total	45	100%

Table 4.5 illustrated the frequency of CS use across speaking activities among students. The result expressed that 79.6% of students engaged in CS primarily during pair work, compared to only 10.2% in group work. More noticeably, the percentage of students who “Rarely use Vietnamese” minimized at 2.0%. Drawing on the results, “Pair work” in speaking activities facilitate the use of CS since its characteristics allows students to directly interact with each other with less pressure and a high level of closeness. In this context, learners prefer to transfer between two languages to maintain the flow of conversation or express ideas and deal with linguistic challenges without fear of public evaluation. Conversely, to “group work” which demand for a high collaborating and organizing, learners have to control their CS use. Ultimately, the collected data suggests that CS use does not only depend on learners’ linguistic competency but also by learning activities’ nature and demands.

Table 4.6: Purpose of CS in peer interaction

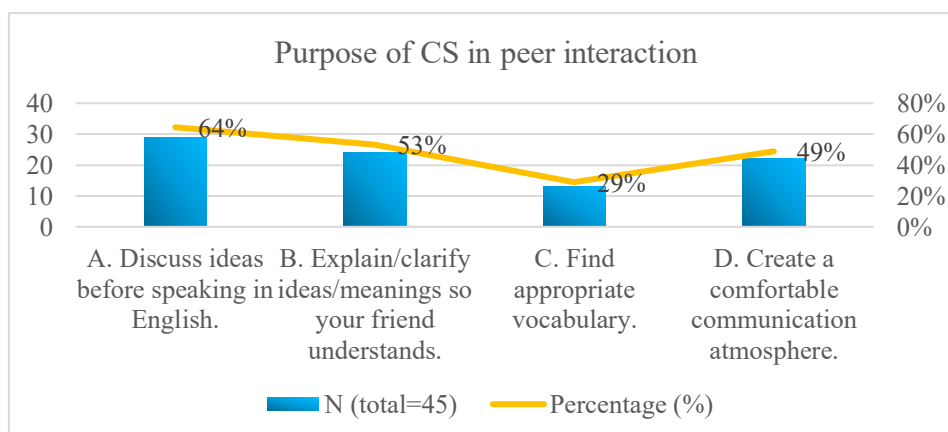


Table 4.6 shows students used CS with peers mainly to discuss ideas before speaking in English (64%), to clarify meaning (53%), and to create a comfortable communication atmosphere (49%). Notably, only 20% cited vocabulary gaps as a purpose, suggesting CS functions primarily as a strategy for idea-building rather than compensating for limited vocabulary.

Table 4.7: Situations in which CS is used

Answers	Statements	N (total=45)	Percentage (%)
A	When I can't remember English vocabulary.	36	80%
B	When I want to explain an idea more clearly.	32	71%

Answers	Statements	N (total=45)	Percentage (%)
C	When I need to discuss an idea with my classmates before speaking.	27	60%
D	When I want to ask the teacher to understand the speaking assignment requirements.	12	27%
E	When I want to maintain a conversation.	35	78%
F	When I feel anxious or lack confidence.	21	47%
Others		0	0%

Table 4.7 shows the situations prompting CS: vocabulary gaps (80%), maintaining conversation (78%), clarifying ideas (71%), discussing with classmates before speaking (60%), anxiety or low confidence (47%), and seeking clarification from the teacher (27%, the lowest). These results indicate CS serves multiple functions including compensating for language gaps, aiding comprehension, and easing anxiety while students tend to avoid it in more formal, teacher-directed exchanges.

4.2.2 Observation findings

Table 4.8: Context information and CS use frequency in speaking activities

Day	Topics	Speaking activities			CS use frequency
		Teacher-Whole class	Pair work	Group work	
1	Phone etiquette	1. Warm up: Playing game 2. Learn Vocabulary	1. Think about some situations and answer the 03 given questions 2. Choose a situation and perform role-play with partners.	1. Read the given task and share the common expression	-22 pairs: CS always occurs (21/22 pairs) -07 groups: CS always occurs (07/07 groups)
2	Giving directions	1. Listen and answer the questions 2. Learn Vocabulary	1. Describe and give instructions to the peer 2. Answer 10 questions within 05 minutes 3. Role play: 04 situations	1. Research and record to fill up the bank table	
3	Live and learn	1. Listen to visualizing location	1. Practice asking for clarification 2. Practice using expressions of location	1. Describe map locations 2. Discussing personal views	

Day	Topics	Speaking activities			CS use frequency
		Teacher-Whole class	Pair work	Group work	
4	Bright lights, Big city	1. Listen for clues to relationships between people and visualizing directions	1. Practice starting and ending a phone conversation 2. Express frustration	1. Practice requesting and giving directions	
5	Money talks	1. Listen to main ideas and details 2. Listen to numbers and expressions of advice	1. Practice suggesting and recommending sentences 2. Practice for giving and refusing advice	1. Discuss managing money, entrepreneurs and abilities	
6	Renting an apartment		1. Discuss the given situations (10) and present in front of the class		
7	Nail that job	1. Answer the 06 questions by the teacher	1. Role play a job interview 2. Practice apologizing and reconciling	1. Discuss jobs and careers 2. Give short oral report	

Classroom observations across seven speaking lessons (Table 4.8) showed CS occurring in nearly all pairs (21/22) and all groups (7/7), though more frequently in pair work-consistent with the questionnaire and interview data. This supports the finding that the lower-pressure, dyadic nature of pair work facilitates CS use.

Table 4.9: Forms of code-switching

CS types	N=29 (22 pairs+07 groups)	%
Intra-sentential switching	25	86
Tag-switching	22	76
Inter-sentential switching	17	59

In table 4.9, the results show that intra-sentential switching was the most observed form (86%) which occurred when students paused mid-utterance to recall a word. For example, one student said, "turn left to... à cái nơi để cơ quan chính quyền làm việc-Town Hall." Also, Tag-switching appeared with a high percentage of 76% “à” “ừm” “you know đúng không?”. It mainly occurred when learners sought to appropriate vocabulary or needed more time to process target language. In contrast, Inter-sentential switching was less common (59%). Students mainly used this type to explain an idea in Vietnamese first and expressed it in English then; for instance, “Theo mình nguyên nhân chính là chi phí cao! I think the main reason is the high cost.” This finding is similar to the questionnaire results in Table 4.5, where students reported

that they most often switched languages to discuss ideas before speaking in English. Overall, the observations suggest that students used different types of CS for different purposes.

4.2.3 Interview findings

Table 4.10: Interviewed students' demographics and CS use frequency

No.	Name	Gender	Age
1	S1	Male	19
2	S2	Female	19
3	S3	Female	19
4	S4	Female	19
5	S5	Female	19
6	S6	Male	19
7	S7	Male	19
8	S8	Female	19
9	S9	Male	19
10	S10	Female	20

The author asked the interviewees that among speaking activities such as group work or pair work or both, which contexts they tend to use CS and their reasons behind, their responses were as below:

S1 was the only one in the class sharing that he “rarely used Vietnamese” in English speaking class. He attempted to minimize CS use; however, he acknowledged that he still relied on Vietnamese when encountering complex topics or when clarifying ideas for his partner, indicating that complete avoidance of CS is rare even among more motivated learners. (Extract from I1, Appendix 4)

S2, S3, S5, S6, S8, S9 and S10 voiced that they often switched between English and Vietnamese in pair work activities (Extract from I2, I3, I5, I6, I8, I9, I10, Appendix 4). They sincerely explained that when working in pairs, they would have close discussions with their peers. This made they felt more comfortable speaking L1 rather than L2 to exchange and explain ideas and questions to support each other without worrying about being judged by their peers. S8 said that she preferred to talk to her close classmates by Vietnamese. She felt less pressure when using mother tongue to discuss with her familiar friends. S9 added that he was willing to use L1 to understand unfamiliar English topics and requirements from the teacher more clearly. S3 described that she tended to use Vietnamese as an effective way to save time, avoid breaking the communication flow and ensure the given speaking tasks completed on time. Normally, they only had 3-5 minutes for practicing and sharing. In short, students may frequently engage in CS during pair work since they feel less anxious and can communicate without fear of others' negative evaluation.

However, S4 (Extract from I4, Appendix 4) detailed that she engaged CS between L1 and L2 during group speaking tasks in order to compensate for her lexical gaps, especially for clarifying meaning, managing speaking tasks and reducing communication anxiety. It also

helped her to enhance group cohesion and facilitated collaborative learning. By contrast, S7 (Extract from I7, Appendix 4) said that he was flexible in using CS both in pairs and group work speaking activities. He was nervous and not confident to speaking by English. He almost discussed with his partners by Vietnamese, but when teacher asked him to present, he easily expressed the answers by English well. It was interesting that his L1 use was so useful for him to re-arrange ideas prior to delivering it by English.

4.3 Results of Research Question 2

4.3.1 Questionnaire findings

Table 4.11: Cognitive strategies underlying CS

Statements	Variable	Mean	Std. Deviation
I use Vietnamese to think and organize ideas before speaking by English.	V1	4.09	0.82
I use CS when I could not find the appropriate vocabulary in English.	V2	4.11	0.65
I use Vietnamese helps me interpret the exact meaning that I want to speak.	V3	3.84	0.93
I switch to Vietnamese to check whether I understand the English contents.	V4	3.64	0.74
I use Vietnamese to control the conversation flow and to avoid communication breakdown.	V5	3.49	1.01
I use Vietnamese to reduce anxiety before speaking English	V6	3.51	0.84
CS makes me feel more confident when joining in English speaking activities	V7	3.67	0.67

Table 4.11 showed that all seven cognitive strategy items exceeded the neutral mean ($M > 3$), with an overall mean of approximately 3.78 and strong internal reliability with Cronbach's $\alpha = 0.843$. The two highest-rated items were V2 "using CS when unable to retrieve vocabulary" with $M = 4.11$ and V1 "using Vietnamese to organize ideas before speaking with $M = 4.09$. These results confirm that lexical retrieval and idea planning were the primary cognitive functions of CS. Classroom evidence supported this by observed instances such as "I have just got "thăng tiến", "à... promotion" or "Turn right at... à chỗ có đèn giao thông ấy... the traffic lights.", illustrating real-time lexical retrieval switching. V7 ($M = 3.67$) also exemplified that CS built students' communicative confidence. Additionally, emotion-related and flow-control functions (V5, $M = 3.49$; S6, $M = 3.51$) were rated lower but remained above neutral, showing that they played a secondary supporting role. In closing, the results indicate that students use CS with a variety of purposes in English speaking process, especially its function to assist organizing ideas and forming sentences in mind prior to speaking by English.

4.3.2 Observation findings

Table 4.12: Time of CS occurrence and associated cognitive functions

Time of CS occurrence	Cognitive function	N=29 (22 pairs+07 groups)	%
Before speaking	Planning and organizing ideas	24	83
While speaking	Lexical retrieval and maintaining communication	27	93
After speaking	Self-monitoring and meaning evaluation	11	38

As can be seen in Table 4.12, the result reveals that CS occurred over the three stages of speaking task implementation process. Particularly, CS occurred most frequently while speaking (93%), to mainly support lexical retrieval and maintain communication. This suggests that participants often switched to Vietnamese when they could not immediately recall English words but wanted to continue speaking fluently. CS also occurred before speaking (83%) to help learners plan and organize their ideas before producing English. In contrast, after speaking, CS was less common (38%) and was mainly used for self-monitoring and evaluating meaning, indicating that reflection was not its primary function.

4.3.3 Interview findings

To triangulate the quantitative results in Table 4.10, interview data were examined for evidence of the four dominant cognitive strategies identified through observation. First, evidence of lexical retrieval reported from S10. He explained that he switched to Vietnamese “chỉ khi nào bí từ thôi, chứ nghĩ ra là em nói tiếng Anh luôn”, meaning “only when I’m stuck for a word, if I can think of it, I say it in English right away” (Extract from I103, Appendix 4), a pattern consistent with the highest-rated item V2 ($M = 4.11$). Second, S2 reported that she “nghĩ bằng tiếng Việt trước, sắp xếp ý xong mới nói tiếng Anh”, meaning “I think in Vietnamese first, organize my ideas, then speak in English” (Extract from I23, Appendix 4), echoing item V1 ($M = 4.09$) and reinforcing the observation-based finding that planning and organizing ideas was among the most frequent strategies.

Third, S5 described briefly switching to Vietnamese mid-conversation to “check lại xem bạn có hiểu đúng ý mình không” (Extract from I65, Appendix 4), to verify whether her partner had correctly understood her meaning, illustrating the self-monitoring function.

S7 noted that he sometimes “so sánh hai cách nói trong đầu bằng tiếng Việt trước khi chọn cách diễn đạt tiếng Anh phù hợp nhất”, meaning “mentally comparing two ways of phrasing something in Vietnamese before choosing the most appropriate English expression” (Extract from I65, Appendix 4), reflecting the meaning-evaluation strategy.

Taken together, the interview data corroborates the questionnaire and observation findings, confirming that lexical retrieval and planning and organizing ideas were the most frequently reported strategies, while self-monitoring and meaning evaluation, though less dominant, were nonetheless present across multiple interviewees.

4.4 Results of Research Question 3

4.4.1 Questionnaire findings

Table 4.13: Effects on learning

Statements	Variable	Mean	Std. Deviation	Min	Max
CS allows me to complete English-speaking tasks more effectively.	V8	3.78	0.82	3	5
CS helps me to maintain communication when I do not know how to express ideas in English.	V9	3.93	0.81	2	5
CS assists me in analyzing and developing ideas when discussing with others.	V10	3.84	0.6	3	5
In general, I agree that CS is a helpful strategy in learning English speaking rather than a sign of poor performance.	V11	3.67	0.56	2	5

Table 4.13 consistently showed students' positive attitudes toward the learning effects of CS with Mean range from 3.67 to 3.93. S9 (M = 3.93) was the highest-rated items, indicating that students used CS as crucial for maintaining communication when L2 expression was unavailable. S10 (M = 3.84) highlighted CS served as a metacognitive function for idea analysis and elaboration. Furthermore, S8 (M = 3.78) confirmed that CS supported the effectiveness of overall speaking tasks while S11 (M = 3.67) showed that students viewed CS as a strategy rather than a sign of deficiency. Also, the consistently low standard deviations (0.56-0.82) indicated strong agreement across participants.

Table 4.14: Students' learning outcomes after the speaking tests

Scores	Self-evaluation	Mid-term result
	Percentage (N=45)	
Excellent (9.0-10)	0%	2%
Good (8.0-8.9)	11%	16%
Fair (7.0-7.9)	53%	60%
Average (5.6-6.9)	33%	13%
Below Average (4.0-5.5)	2%	9%
Poor <4.0)	0%	0%

Table 4.14 displays the comparison between students' self-assessed speaking ability and their actual mid-term test scores. Most of students kept remained within the Fair band with 53% self-assessed vs 60% mid-term. Noticeably, the Good category increased slightly from 11% to 16% in the actual test, while the Average category dwindled from 33% to 13%, implying some students underestimated their speaking performance. The difference between self-evaluation and the actual test result, especially at lower scores level demonstrates that speaking competency is influenced by many factors. It may include vocabulary breadth, the ability to organize ideas, anxiety level, learning experience and interaction environments. In this context, CS can be seen one of the many strategies used by students to tackle communication difficulties. Nonetheless, it is emphasized that CS will not be the only factor affecting learners' learning outcomes. In this case, CS can play a supporting role to develop speaking skills. Such factors

as frequency practice, learning strategies, teachers' guidelines and English-speaking environment still is the primary ones in enhancing learners' speaking competency.

4.4.2 Observation findings

Classroom observation provided specific evidence of how CS supported communication continuity and idea development. During the “Money Talks” lesson (Day 5, Table 4.7), one pair was observed discussing entrepreneurship: after a 4-second pause, one student switched to Vietnamese to propose an argument “nếu không có vốn thì sao khởi nghiệp được”, which her partner then helped reformulate into English “if you don't have capital, how can you start a business?”. This episode illustrates CS functioning not merely to fill a lexical gap but to co-construct an argument before its English articulation. It directly supports the questionnaire finding that CS assists in “analyzing and developing ideas when discussing with others” (S10, $M = 3.84$).

Similarly, during the “Nail That Job” role-play (Day 7), a student who had been silent for several seconds switched to Vietnamese to ask a clarifying question of his partner, then resumed the role-play in English without breaking the interaction. Such instances, there were 14 out of 22 pairs suggested that CS served as a communication-repair mechanism that prevented interactional breakdown, consistent with the highest-rated learning-effect item S9 ($M = 3.93$, “CS helps me maintain communication”).

Table 4.15: Observed outcomes following code-switching

Interactional outcomes	N=29 (22 pairs+07 groups)	%
Learners speak more fluently	23	79%
Clear ideas	25	86%
Listener understands the shared message better	22	76%
Reduce communication breakdown / communication maintained	20	69%
Communication breakdown	3	10%
No clear impact	2	7%

Table 4.15 shows CS was associated with predominantly positive outcomes: clearer ideas (86%), more fluent speech (79%), and better listener comprehension (76%), while communication breakdown (10%) and no clear impact (7%) were rare. This confirms CS's role in overcoming language obstacles and maintaining conversational flow.

4.4.3 Interview findings

Table 4.16: Students' perspectives on the role of CS on Communication and Idea Generation Processes

Students	Answers
S1	Switching to Vietnamese can help me to verify what I intentionally speak is proper or not prior to speaking by English. (Extract from I112, Appendix 4)

S2	It is like we double check our ideas before talking to others. (Extract from I212, Appendix 4)
S3	Using Vietnamese can compensate for English vocabulary if I must express complicated or academic ideas. (Extract from I312, Appendix 4)
S4	My mother tongue helps me more confident when talking to my peers. (Extract from I412, Appendix 4)
S5	Using Vietnamese helps ensure the listener can understand my points correctly. (Extract from I512, Appendix 4)
S6	I considered Vietnamese as a tool to assist my idea generation better. (Extract from I612, Appendix 4)
S7	I feel like it is easy for me to control discussed content. (Extract from I712, Appendix 4)
S8	It looks like a self-cognitive check. (Extract from I812, Appendix 4)
S9	It assists me to evaluate the logic of the answers. (Extract from I912, Appendix 4)
S10	CS between English and Vietnamese helps me to avoid misunderstanding or wrong expressions. (Extract from I012, Appendix 4)

Table 4.16 provides the result that most of students agreed that CS facilitated the communication process and forming ideas. Specially, Vietnamese use allowed them to revise ideas before speaking, compensate when lack of English vocabulary, arranging and monitoring the speaking content as well as evaluate the answers' logic. Furthermore, switching to Vietnamese enabled learners to be more confident and reduce the risk of wrong expression or misunderstanding during communication.

4.5 Discussion

4.5.1 Summaries of the results

Based on the target research questions, the results reveal some useful insights. First, it is about how students use CS across interactional contexts. The data displays that CS is used in high frequency and occurs in many speaking activities. It is worth noting that students have a tendency to use CS in pair work instead of group work as well as in complex speaking topics. More importantly, CS use is not restricted by a specific interlocutor, but it often equally occurs when students speak to peers and the teacher, highlighting its flexibility use in EFL classrooms.

Second, with regard to cognitive strategies dominating CS use, the SPSS data result demonstrates that information processing-related factors such as brainstorming, organizing ideas and language retrieval reach the highest average value. Drawing on the result, it validates that CS is primarily used as cognitive strategy, aiming to facilitating the speech production process including conceptualization, formulation and articulation; especially when students find it hard to express ideas by English.

Third, in terms of students' perspectives on the role of CS as a cognitive strategy in supporting English-speaking skills across different interactional contexts, the results exhibit that students use CS to maintain the conversation, express the meaning of sentences more accurately. It also contributes to boosting their confidence when participating in speaking

activities. Consequently, not only does CS play a key role in assisting learners' communication but also promotes learning process more effectively.

4.5.1.1 Research Question 1

As found in the results, most of students made up to 97% use CS at least "Sometimes" frequency and 64.4% of them used CS "Often", revealing that CS was not a separate behavior, but a cognitive systematic strategy in English speaking class. Noticeably, the result displayed that CS was frequently used in speaking activities and occurred across different interactional contexts. However, CS was recorded more in pair work (79.6%) rather than group work (10.2%). On the one hand, pair work creates a close atmosphere, less underestimated by others and time pressure as normally 3-5 minutes. The real-time factor then required them to proceed with the language quickly. Hence, they tended to use Vietnamese as "cognitive shortcut" to keep the conversation going. On the other hand, group work required learners' collaboration and high organization driving them to control CS tightly. The findings of this research are generally consistent with previous studies on CS. Specially, [35]'s Sociocultural Theory, especially ZPD notion, helps explain why CS focusing on pair work instead of group work. To less pressure environment, they can use L1 as an intermediate tool to "negotiate meaning" and build up knowledge in "ZPD". That also is consistent with the collaborative learning process described by [36] and [40]'s "scaffolding model".

Another interesting finding was that CS occurred relatively balance between teacher and students (58% equally) instead of focusing on peer-peer interaction as initial hypothesis. This result suggested that interlocuter was not the primary determining factor, but the task features and interactive contexts mainly ruled over learners' CS.

The findings partially reconfirm and add in to Adaptive Control Hypothesis [44] which pointed out bilinguals' CS flexibly changed based on different interactional contexts. Nevertheless, [44] and majority of previous international studies [30], [35] supposed that CS less occurred when learners communicated with those who were in higher hierarchical order as "teacher". Furthermore ([45]; [46]; [47]) have focused mainly on teachers' use of CS for explaining lessons, supporting weaker students, or managing classrooms. In contrast, the present study examined CS from the learners' perspective and found that it occurred independently of teacher behavior. In fact, it appeared more frequently during pair-work activities when the teacher was not directly involved in the interaction. This finding helps address the research gap identified in Section 2.2.2 and suggests that learner CS and teacher CS may be driven by different purposes and therefore should be investigated separately. In fact, the research result revealed a balance CS use between learners-teacher and peer-peer interaction which is a differential point compared to other studies.

4.5.1.2 Research Question 2

The results reveal that among the cognitive strategies underlying CS, lexical retrieval (S2, $M = 4.11$) and planning/organizing (S1, $M = 4.09$) were rated highest, while emotion-related functions such as anxiety reduction (S6, $M = 3.51$) and flow control (S5, $M = 3.49$) were comparatively lower, though still above the neutral midpoint. This pattern can be explained by the cognitive demands of the speech production process. Following [1]'s model, the formulation stage requires simultaneous processing of lexical items, grammar, and pronunciation in the L2;

when this processing load exceeds learners' available cognitive capacity; particularly for students at the Fair and Average proficiency band (Table 4.1), switching temporarily to L1 reduces the burden of lexical and grammatical encoding, freeing cognitive resources for idea development. This explains why information-processing strategies such as retrieval and planning outweighed emotion-regulation strategies: the former addresses a more immediate processing bottleneck, while the latter addresses a secondary, affective concern.

This finding aligns closely with [33]'s Cognitive Load Theory and reinforces [44]'s Adaptive Control Hypothesis, which frames CS as a flexible control mechanism rather than a random behavior. However, it diverges from earlier CS research [39], [40], which primarily framed the benefits of CS in psychological or pedagogical terms, reducing anxiety, aiding task completion, without specifying the underlying cognitive mechanism. By identifying and ranking four distinct cognitive strategies such as lexical retrieval, planning, organizing, self-monitoring, meaning evaluation, and showing that information-processing strategies dominate over affective ones, this study extends beyond the descriptive, function-based accounts that characterized much of the literature reviewed in Section 2.2.2, and directly addresses the gap concerning how CS operates cognitively, not merely that it is beneficial.

4.5.1.3 Research Question 3

The consistent positive attitudes recorded via the three collected sources. In the questionnaire, students reported high mean scores relatively from 3.67 to 3.93. In addition, classroom observation contributed to the findings such as 86% of students generating ideas more clearly, 79% spoke more fluently, only 10 experienced noticeable communication breakdowns.

This pattern was further strengthened by the interview data as all 10 students concurred the positive role of CS. The consistency of these findings across questionnaires, observations, and interviews reinforced the results' credibility and demonstrated effective triangulation within the mixed-methods design.

Nevertheless, when these findings were compared with the students' actual speaking scores (Table 4.14), the relationship between CS use and academic performance was less straightforward. Interestingly, several students rated their own speaking ability lower than their actual test results. This suggests that the main contribution of CS lies in supporting the speaking process rather than improving speaking scores directly. In particular, CS appears to help students maintain conversation flow, organize their ideas, and communicate with greater confidence. Speaking competency, by contrast, is likely influenced by a wider range of factors including vocabulary knowledge, the amount of speaking practice, and the learning environment.

These findings are also consistent with the theoretical framework and previous research. A clear example was observed during the Money Talks activity, where one student first expressed an idea in Vietnamese before a classmate helped reformulate it in English. This interaction illustrates [38] [39], concept of collaborative dialogue, in which learners work together to construct meaning while solving language problems. In this case, CS was used not only to overcome vocabulary gaps but also to support shared meaning-making, as predicted by Sociocultural Theory.

Compared with previous studies conducted in Vietnam, such as [48] and [49], which generally concluded that CS helps reduce learners' anxiety and facilitates learning, the present study shows how it contributes to different aspects of the speaking process, including idea generation, speech fluency, and communication confidence.

A particularly interesting comparison can be made with [50], the study most closely related to the current research. While [50] found that students generally held positive attitudes toward CS, their actual use of CS and emotional responses were relatively neutral, suggesting a gap between beliefs and classroom behavior. In contrast, the present study found not only positive attitudes but also a very high level of actual CS use, with 97% of the observed students using CS during speaking activities. One possible explanation is the difference in the participant groups. The students in the present study were English majors, who are likely to have stronger metalinguistic awareness and greater confidence in language learning than the non-English majors in [50]'s study. As a result, they may have been more willing and able to put their positive attitudes toward CS into practice during speaking tasks.

6. Conclusion

This study explored the role of CS as a cognitive strategy in English-speaking activities among sophomore English-major students at IUH, focusing on how CS is used across interactional contexts, the cognitive strategies underlying its use, and students' perceptions of its role in developing speaking skills. Using an explanatory sequential mixed-methods design that integrated questionnaires, classroom observations, and semi-structured interviews, the study successfully addressed all three research questions and strengthened the reliability of its findings through data triangulation.

The findings show that students frequently switched between English and Vietnamese across most speaking activities, with CS occurring more often during pair work than group work, suggesting that interactional context shapes the frequency of CS use. The dominant cognitive strategies underlying this behavior were idea generation, idea organization, and lexical retrieval, indicating that students rely on their first language as a thinking tool at various stages of speech production, particularly when handling cognitively demanding topics. Students generally perceived CS as a beneficial strategy that enhanced communication, boosted confidence, and facilitated idea development-although it was not found to directly determine overall speaking achievement, which appears to be shaped by multiple additional factors.

Taken together, these results support reconceptualizing CS not as a sign of linguistic deficiency but as a purposeful cognitive and communicative resource that helps learners manage the demands of real-time English speaking. Theoretically, the study contributes to a deeper understanding of the cognitive mechanisms-planning, self-monitoring, and reasoning-behind CS, an area less addressed by prior research that has focused mainly on its communicative functions. Practically, the findings encourage EFL instructors to move away from strict "English-only" policies toward more flexible, translanguaging-informed approaches that recognize students' first language as a legitimate resource for thinking and communication rather than a barrier to be eliminated.

Several limitations should be considered when interpreting these findings. The relatively small sample consisting of 45 students from a single university, selected via convenience sampling that limits the study's generalizability. Self-reported questionnaire and interview data may be subject to social desirability bias, and the use of students' personal devices for recording classroom interactions may have introduced an observer effect. In addition, the study focused solely on speaking skills and relied primarily on descriptive statistics rather than more advanced multivariate techniques, meaning the relationships identified should be understood as correlational rather than causal.

Future research could address these limitations by expanding participant samples across universities, disciplines, and proficiency levels; employing longitudinal designs to examine how the functions of CS evolve as learners' proficiency develops; using independent recording equipment to reduce observer effects; and applying more advanced analytical approaches, such as Structural Equation Modeling, to test causal relationships among CS, cognitive strategies, and speaking outcomes. Overall, this research reinforces the view that Vietnamese EFL learners' first language can serve as a valuable cognitive and communicative resource in developing English-speaking competence, rather than an obstacle to be avoided.

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Conflicts of Interest

The authors declare no conflict of interest.

Author Contributions

Conceptualization, T.T.P.; Methodology, N.T.D.; Investigation, T.T.P.; Data collection, T.T.T.P.; Formal analysis, T.T.T.P.; Writing original draft preparation, T.T.T.P.; Writing review and editing, N.T.D.; Supervision, N.T.D. All authors have read and agreed to the published version of the manuscript.

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Ethical approval and permission were obtained from the Faculty of Foreign Languages and the relevant course lecturers by 16 Jan 2026.

Informed Consent Statement

Written informed consent was obtained from all participants prior to their participation.

Data Availability Statement

The data are not publicly available due to confidentiality restrictions but be available from the corresponding author upon reasonable request and with permission from the data owner.

Declaration of Generative AI and AI-Assisted Technologies

Generative AI (ChatGPT, OpenAI) was used solely to assist with language editing and improving the clarity of the manuscript. The authors reviewed, edited, and verified all content and took full responsibility for the final version of the manuscript.

References

- [1] W. J. M. Levelt, *Speaking*. The MIT Press, 1989. doi: [10.7551/mitpress/6393.001.0001](https://doi.org/10.7551/mitpress/6393.001.0001).
- [2] R. K, and C. Alamelu, "A Study of Factors Affecting and Causing Speaking Anxiety," *Procedia Computer Science*, vol. 172, pp. 1053-1058, 2020. doi: [10.1016/j.procs.2020.05.154](https://doi.org/10.1016/j.procs.2020.05.154).
- [3] T. T. Nguyen, and T. T. N. Tong, "Investigation into Difficulties in Public Speaking among English-majored Students at University of Phan Thiet," *International Journal of Language Instruction*, vol. 3, no. 1, pp. 17-30, 2024. doi: [10.54855/ijli.24312](https://doi.org/10.54855/ijli.24312).
- [4] B. Rampton, *Crossing*. Routledge, 2014. doi: [10.4324/9781315760360](https://doi.org/10.4324/9781315760360).
- [5] E. Macaro, "Analysing Student Teachers' Codeswitching in Foreign Language Classrooms: Theories and Decision Making," *The Modern Language Journal*, vol. 85, no. 4, pp. 531-548, 2001. doi: [10.1111/0026-7902.00124](https://doi.org/10.1111/0026-7902.00124).
- [6] S. Canagarajah, "Codemeshing in Academic Writing: Identifying Teachable Strategies of Translanguaging," *The Modern Language Journal*, vol. 95, no. 3, pp. 401-417, 2011. doi: [10.1111/j.1540-4781.2011.01207.x](https://doi.org/10.1111/j.1540-4781.2011.01207.x).
- [7] O. García, and L. Wei, "Language, Bilingualism and Education," *Translanguaging*, pp. 46-62, 2014. doi: [10.1057/9781137385765_4](https://doi.org/10.1057/9781137385765_4).
- [8] M. Swain, and S. Lapkin, "A Vygotskian sociocultural perspective on immersion education," *Journal of Immersion and Content-Based Language Education*, vol. 1, no. 1, pp. 101-129, 2013. doi: [10.1075/jicb.1.1.05swa](https://doi.org/10.1075/jicb.1.1.05swa).
- [9] C. Færch, and G. Kasper, "TWO WAYS OF DEFINING COMMUNICATION STRATEGIES," *Language Learning*, vol. 34, no. 1, pp. 45-63, 1984. doi: [10.1111/j.1467-1770.1984.tb00995.x](https://doi.org/10.1111/j.1467-1770.1984.tb00995.x).
- [10] H. M. Le, and N. T. V. Phan, "Vietnamese EFL Students' Perceptions of Difficulties in Achieving English Oral Communicative Competence," *International Journal of Scientific Research and Management*, vol. 11, no. 05, pp. 2769-2782, 2023. doi: [10.18535/ijstrm/v11i05.el02](https://doi.org/10.18535/ijstrm/v11i05.el02).
- [11] T. B. N. Tran, & H. G. Nguyen, "An investigation into difficulties in English speaking skills encountered by English-majored students at a university in Can Tho City". *Equipment with New General Education Program*, vol. 2, no. 313, pp.54-56, 2024.
- [12] M. Turnbull and J. Dailey-O'Cain, Eds., *First Language Use in Second and Foreign Language Learning*. Bristol, U.K.: Multilingual Matters, 2009
- [13] W. Littlewood, and B. Yu, "First language and target language in the foreign language classroom," *Language Teaching*, vol. 44, no. 1, pp. 64-77, 2009. doi: [10.1017/s0261444809990310](https://doi.org/10.1017/s0261444809990310).
- [14] E. Makulloluwa, "Code switching by teachers in the second language classroom," *International Journal of Arts & Sciences*, vol. 6, no. 3, pp. 581-598, 2013.
- [15] I. Fauzi, "Code-switching in EFL classroom settings: A review from teachers' and students' outlook," *Journal of English Teaching and Learning Issues*, vol. 6, no. 2, pp. 107-120, 2023, doi: [10.21043/jetli.v6i2.19681](https://doi.org/10.21043/jetli.v6i2.19681).

- [16] S. Poplack, “Sometimes I’ll start a sentence in Spanish Y TERMINO EN ESPAÑOL: toward a typology of code-switching1,” *Linguistics*, vol. 18, no. 7-8, 1980. doi: [10.1515/ling.1980.18.7-8.581](https://doi.org/10.1515/ling.1980.18.7-8.581).
- [17] J. J. Gumperz, *Discourse Strategies*. Cambridge, U.K.: Cambridge University Press, 1982.
- [18] J. Holmes, *An Introduction to Sociolinguistics*. Routledge, 2013. doi: [10.4324/9781315833057](https://doi.org/10.4324/9781315833057).
- [19] Anne L. Beatty-Martínez, Melinda Fricke, and Christian A. Navarro-Torres, “When Jugglers Learn to Tango: Switching Between Languages and Disciplines,” *The American Journal of Psychology*, vol. 137, no. 2, pp. 181-190, 2024. doi: [10.5406/19398298.137.2.09](https://doi.org/10.5406/19398298.137.2.09).
- [20] Muysken, P. *Bilingual speech: A typology of code-mixing*. Cambridge University Press, 2000.
- [21] Auer, P. *Code-switching in conversation: Language, interaction and identity*. Routledge, 1998.
- [22] H. M. K. Al Yousef, A. R. Al Jaraedah, N. M. Alomari, S. I. Al-Qawasmeh, and M. M. Al-Natou. “Beyond linguistic gaps: Types of code-switching among Jordanian bilingual speakers”. *Journal of World Englishes and Educational Practices*, Vol. 7, no. 1, pp 22-31, 2025, <https://doi.org/10.32996/jweep.2025.7.1.3>
- [23] M. A. Vela Gámez, “Code-switching as a Learning Strategy for EFL Learners,” *International Journal of Linguistics Literature & Translation*, vol. 6, no. 10, pp. 95-103, 2023. doi: [10.32996/ijllt.2023.6.10.13](https://doi.org/10.32996/ijllt.2023.6.10.13).
- [24] B. Özkara, G. Cedden, C. von Stutterheim, and P. Meyer, “Code-switching and cognitive control: a review of current trends and future directions,” *Frontiers in Language Sciences*, vol. 4, 2025. doi: [10.3389/flang.2025.1515283](https://doi.org/10.3389/flang.2025.1515283).
- [25] T. T. T. Phan, “Code-switching use of English major students at English speaking classes at University of Foreign Languages, Hue University,” *Hue University Journal of Sciences: Social Science and Humanities*, vol. 130, no. 6D, pp. 85–109, 2021, doi: [10.26459/hueunijssh.v130i6D.6289](https://doi.org/10.26459/hueunijssh.v130i6D.6289)
- [26] J. Harmer, *The Practice of English Language Teaching*, 4th ed. Harlow, U.K.: Pearson Education Limited, 2007.
- [27] M. Canale, and M. Swain, “THEORETICAL BASES OF COMMUNICATIVE APPROACHES TO SECOND LANGUAGE TEACHING AND TESTING,” *Applied Linguistics*, vol. I, no. 1, pp. 1-47, 1980. doi: [10.1093/applin/i.1.1](https://doi.org/10.1093/applin/i.1.1).
- [28] R. Hanifa, “Factors generating anxiety when learning EFL speaking skills,” *Studies in English Language and Education*, vol. 5, no. 2, pp. 230-239, 2018. doi: [10.24815/siele.v5i2.10932](https://doi.org/10.24815/siele.v5i2.10932).
- [29] OECD, *Unlocking High-Quality Teaching*. OECD Publishing, 2025. doi: [10.1787/f5b82176-en](https://doi.org/10.1787/f5b82176-en).
- [30] Y. Watanabe, and M. Swain, “Effects of proficiency differences and patterns of pair interaction on second language learning: collaborative dialogue between adult ESL learners,” *Language Teaching Research*, vol. 11, no. 2, pp. 121-142, 2007. doi: [10.1177/136216880607074599](https://doi.org/10.1177/136216880607074599).
- [31] S. Yun, “Code-switching in EFL learners’ conversation: Foreigner-included context vs. Korean-only context”. *Discourse and Cognition*, Vol. 30, no. 2, pp. 103-124. 2023.

- [32] J. F. Kroll, and E. Bialystok, "Understanding the consequences of bilingualism for language processing and cognition," *Journal of Cognitive Psychology*, vol. 25, no. 5, pp. 497-514, 2013. doi: [10.1080/20445911.2013.799170](https://doi.org/10.1080/20445911.2013.799170).
- [33] J. Sweller, "Cognitive Load During Problem Solving: Effects on Learning," *Cognitive Science*, vol. 12, no. 2, pp. 257-285, 1988. doi: [10.1207/s15516709cog1202_4](https://doi.org/10.1207/s15516709cog1202_4).
- [34] M. Canale, and M. Swain. "Theoretical bases of communicative approaches to second language teaching and testing". *Applied Linguistics*, Vol. 1, no. 1, pp.1-47. 2013.
- [35] L. S. Vygotsky, *Mind in Society*. Harvard University Press, 1980. doi: [10.2307/j.ctvjf9vz4](https://doi.org/10.2307/j.ctvjf9vz4).
- [36] R. Donato. *Collective scaffolding in second language learning*. In J. P. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 33-56). Ablex Publishing. 1994.
- [37] M. Antón, and F. J. DiCamilla. "Socio-cognitive functions of L1 collaborative interaction in the L2 classroom". *Modern Language Journal*, Vol. 83, no. 2, pp. 233-247. 1999.
- [38] M. Swain. *The output hypothesis and beyond: Mediating acquisition through collaborative dialogue*. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97-114). Oxford University Press. 2000.
- [39] M. Swain. *The Languageing, agency and collaboration in advanced second language proficiency*. In H. Byrnes (Ed.), *Advanced language learning: The contribution of Halliday and Vygotsky* (pp. 95-108). Continuum. 2006.
- [40] J. P. Lantolf, and S. L. Thorne. *Sociocultural theory and the genesis of second language development*. Oxford University Press. 2006.
- [41] R. L. Oxford. *Language learning strategies: What every teacher should know*. Newbury House. 1990
- [42] B. J. Zimmerman, "Attaining Self-Regulation," *Handbook of Self-Regulation*, pp. 13-39, 2000. doi: [10.1016/b978-012109890-2/50031-7](https://doi.org/10.1016/b978-012109890-2/50031-7).
- [43] N. Storch, and G. Wigglesworth, "Is There a Role for the Use of the L1 in an L2 Setting?," *TESOL Quarterly*, vol. 37, no. 4, pp. 760, 2003. doi: [10.2307/3588224](https://doi.org/10.2307/3588224).
- [44] D. W. Green, and J. Abutalebi, "Language control in bilinguals: The adaptive control hypothesis," *Journal of Cognitive Psychology*, vol. 25, no. 5, pp. 515-530, 2013. doi: [10.1080/20445911.2013.796377](https://doi.org/10.1080/20445911.2013.796377).
- [45] N. Q. Tien, "English-Vietnamese code-switching in tertiary educational context in Vietnam". *Asian Englishes*, vol.15, no.2, pp. 4-29. 2012.
- [46] T. N. Nguyen, P. Grainger, and M. Carey. "Code-switching in English Language Education:Voices from Vietnam". *Theory and Practice in Language Studies*, Vol. 6, no.7, pp. 1333-1340. 2016.<http://dx.doi.org/10.17507/tpls.0607.01>
- [47] L. Grant, and T. T. M. Nguyen. "Pedagogical code-switching in Vietnamese tertiary EFL classrooms". *The Asian EFL Journal*, Vol. 19, no. 2, p.97-123. 2017.
- [48] A. Sampson, "Learner code-switching versus English only," *ELT Journal*, vol. 66, no. 3, pp. 293-303, 2011. doi: [10.1093/elt/ccr067](https://doi.org/10.1093/elt/ccr067).
- [49] Q. H. Luong, and K. G. U. J. Graduate School of Humanities, "Code-switching in Vietnamese EFL Context: Attitudes of Vietnamese ELF Teachers, Educators, and Students," *International Journal of Research in English Education*, vol. 7, no. 1, pp. 1-15,

2022. doi: [10.52547/ijree.7.1.1](https://doi.org/10.52547/ijree.7.1.1).

- [50] M. T. Duong, T. N. Tran, and H. A. K. Tieu. “Non-English majors’ attitudes towards code-switching as a communication strategy in relation to their English proficiency”. *TNU Journal of Science and Technology*, 228(4), 26-31. 2023. <https://doi.org/10.34238/tnu-jst.6920>
- [51] J. W. Creswell, and V. L. Plano Clark. *Designing and conducting mixed methods research (3rd ed.)*. Sage Publications. 2018.
- [52] J. T. Selamat. *Code switching in the Malaysian ESL classroom [Unpublished master’s thesis]*. University of Otago. 2014.
- [53] V. Braun, and V. Clarke, “Using thematic analysis in psychology,” *Qualitative Research in Psychology*, vol. 3, no. 2, pp. 77-101, 2006. doi: [10.1191/1478088706qp063oa](https://doi.org/10.1191/1478088706qp063oa).