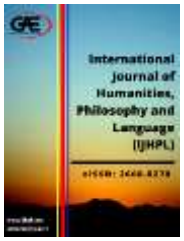
International Journal of Humanities, Philosophy and Language
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18



INTERNATIONAL JOURNAL OF HUMANITIES, PHILOSOPHY AND LANGUAGE (IJHPL)
www.gaexcellence.com/ijhpl

THE EFFECT OF CODE-SWITCHING IN WRITING: AN EXPERIMENTAL STUDY BASED ON BEGINNER CHINESE LEARNERS

Zhao Yunlu[1], Yap Teng Teng[2], Chew Fong Peng[3]*

[1] Institute for Advanced Studies, University of Malaya, Malaysia
s2149194@siswa.um.edu.my https://orcid.org/0009-0000-1228-0829
[2] Department of Malaysian Languages & Applied Linguistics, Faculty of Language and Linguistics, University of Malaya, Malaysia
yaptengteng@um.edu.my https://orcid.org/0000-0001-6558-2978
[3] Department of Language and Literacy Education, Faculty of Education, University of Malaya, Malaysia
fpchew@um.edu.my https://orcid.org/0000-0002-7876-7979

Article Info:

Article history:
Received date: 18.01.2026
Revised date: 29.01.2026
Accepted date: 09.02.2026
Published date: 02.03.2026

To cite this document:

Zhao, Y., Yap, T. T., & Chew, F. P. (2026). The Effect of Code-Switching in Writing: An Experimental Study Based on Beginner Chinese Learners. *International Journal of Humanities, Philosophy and Language, 9*(33), 01-18

Abstract:

This study investigates the effectiveness of English-Chinese code-switching (CS) in enhancing Chinese as a Second Language (CSL) learners' writing performance. Through an experimental design, the research compares the impact of CS on writing outcomes with that of traditional writing training among beginner CSL learners. A total of 365 participants from two public universities in Xi'an, China, were divided into an experimental group (n=125) and a control group (n=240). The experimental group received English-Chinese CS interventions during writing tasks, while the control group followed conventional monolingual Chinese writing instruction. Pre- and post-test writing scores were analyzed using independent and paired samples t-tests. The results indicate that the experimental group significantly outperformed the control group in post-test scores, showing medium effect sizes (d=0.232). Furthermore, the experimental group demonstrated greater progress from pre- to post-test compared to the control group (d=0.812 vs. d=0.731). These findings suggest that CS may function as a cognitive resource in CSL writing, supporting improvement in writing performance. This study provides empirical evidence on the potential benefits of integrating CS into language learning tasks, suggesting a possible approach for supporting writing development among beginner CSL learners.

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

DOI:10.35631/IJHPL.933001 **Keyword:**

Beginner Learner; Chinese Writing; Code-Switching; CSL; Experimental Study

Introduction

Code-switching (CS), the phenomenon where speakers alternate between two or more language varieties within the same conversation or communication context (Myers-Scotton, 1985), has been regarded as a core topic in sociolinguistic research. However, with the expanding perspectives in second language acquisition (SLA), scholars have increasingly recognized that learners' conscious use of CS during second language (L2) use is not only a social behavior but may also function as a potential cognitive and learning strategy. (e.g., Alić, 2022).

Existing studies have shown that CS has demonstrated positive learning effects in areas such as L2 speaking (Le, 2022), listening (Zhang & Graham, 2020), and reading (Sibongile & Ansurie, 2021). However, empirical research on its impact on L2 writing is relatively scarce and uneven (Grebeshkova, 2017). Most existing studies focus on English as a L2 (e.g., Medhin & Mohammed, 2024) and primarily explore the supportive role of CS in the writing process, such as its cognitive stimulation function in the ideation phase (Plata-Ramírez, 2016; Veerappan, 2013) or its value in fostering critical thinking (Uzairovich, 2025). In contrast, there is a lack of empirical evidence regarding how conscious CS as an intervention in the writing process directly affects final writing outcomes, such as text quality, linguistic accuracy, and organizational structure (Archila et al., 2021). This research gap is especially prominent in the context of CSL, where relevant empirical studies are even more limited. This gap restricts our comprehensive understanding of the mechanisms by which CS contributes to the development of overall writing competence.

To fill this gap, the present study adopts an experimental approach to investigate the effects of CS on the writing performance of CSL. We focus on beginner-level Chinese learners and set up an experimental group (English Chinese CS writing intervention) and a control group (regular Chinese writing training). Writing samples from pre-tests and post-tests are collected for both groups. The study primarily utilizes SPSS 27.0 software to conduct independent samples t-tests to compare group differences and paired samples t-tests to analyze intra-group pre-test and post-test changes, thereby quantitatively evaluating the impact of the CS strategy on learners' Chinese writing performance. The main question of this study aims to address is: Under strict control of other variables, can systematic English Chinese CS writing training significantly improve the writing performance of beginner-level Chinese learners?

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

This study aims to provide empirical evidence for the application of CS in CSL writing instruction through rigorous experimental design and data analysis, while also contributing to a deeper theoretical understanding of the collaborative functioning of multilingual resources in the cognitive process of L2 writing. In this study, CS is conceptualized as a cognitive scaffold that supports beginner CSL learners' writing processes by facilitating idea generation and linguistic access.

Literature Review

Code-Switching

The concept of "code" originally emerged from the fields of communication theory and semiotics and has since been gradually introduced into various academic disciplines, covering areas such as scientific research, literary analysis, and linguistic studies. According to Wardhaugh (1998), both a language and its evolving forms fall within the scope of code, which can refer to a complete language system or specifically to dialects, expressions, vocabulary used in particular contexts, and their variations. Verschueren (2000) further elaborated on this by stating, code refers to all the distinct variants within a language that can be clearly differentiated.

Haugen (1953) was the first to introduce the term CS, defining it as the act of switching between two or more languages and their variants depending on the communicative context. Haugen (1953) also introduced terms like "code-mixing" and "code-interference," which provided a theoretical framework for subsequent research. Since then, Myers-Scotton (1995:233) defined CS as "the use of two or more language varieties in different conversations or interactions." She noted that the language varieties in CS could be entirely different languages or different registers of the same language. CS inevitably occurs in bilingual or multilingual environments, highlighting that its development is intrinsically tied to bilingualism. Linguistic research on CS has primarily focused on three areas: sociolinguistics (e.g., Gumperz, 1972; Fishman, 1977), syntax (e.g., Myers-Scotton, 1993; Poplack, 1980), and conversation analysis (e.g., Auer, 1984b; Skiba, 1997; Gumperz, 1977). Among these, the integration of sociolinguistic research with foreign language classrooms has been a key source of studies on CS in the classroom.

Early research viewed CS in L2 classrooms as a special phenomenon, interpreting it as an external manifestation of learners' insufficient L2 proficiency. As a result, it was suggested that teachers should minimize the use of the first language (L1) in order to maximize students' exposure to the target language (e.g., Willis, 1981). Cummins and Swain (1986), in their model of Additive Bilingualism, proposed that teaching should be conducted solely in the target language, with strict boundaries between L1 and L2, and the use of translation should be avoided. However, in the early 21st century, the role of CS in L2 classrooms began to be recognized and its functions were more thoroughly explored. Simon (2001) argued that classrooms are microcosms of language learning, providing opportunities for unique discoveries. She stated that the study of code in the classroom is multi-layered and more abstract compared to the analysis of social codes. Cook (2001) suggested that CS is a highly skilled linguistic activity and an effective strategy for SLA, as it can significantly enhance L2 instruction. Both scholars still advocated minimizing the use of L1 in SLA.

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

In recent years, CS has been applied in various aspects of L2 classrooms and has been proven to have distinct functions. Some studies focus on more specific applications of CS in L2 classrooms, suggesting that the L1 plays the role of an intermediary, particularly when there is a need for explanations of grammar, organizing classroom tasks, and managing student discipline (e.g., Sampurna, 2023; Murtiningsih et al., 2022). Moreover, CS can fulfill emotional needs, as Kumar et al. (2021) recommend its appropriate use for emotional support in the classroom.

Furthermore, recent studies have shown that CS significantly benefits the improvement of L2 proficiency (Mustafa, 2021; Alić, 2022). Specifically, CS has demonstrated positive effects on various language skills, including listening (Zhang & Graham, 2020), speaking (Le, 2022), reading (Sibongile & Ansurie, 2021), and writing (Moussa et al., 2016). However, these studies have largely focused on English as a L2, and there is a notable lack of research on CSL, which remains a gap that needs to be filled.

L2 Writing and CS in L2 Writing

L2 writing occupies an indispensable and central position in SLA and assessment systems. It not only serves as a comprehensive test of learners' language knowledge but also plays a key role in advancing their language abilities to a higher level (Wang, 2005). As a highly complex cognitive and verbal output activity, writing requires learners to actively mobilize and integrate their knowledge of vocabulary, grammar, and discourse, thus achieving language internalization from understanding to creation (Wu, 2023). This process is often accompanied by strong subjective intention to express and emotional investment, as writers need to construct meaning, convey viewpoints, and shape their self-identity through written forms.

Therefore, writing performance is often regarded as a dual representation of both language proficiency and the writer’s consciousness (Shin et al., 2021). Given the significant role writing plays in academic, professional, and cross-cultural communication, the delay in developing writing skills not only restricts overall language proficiency but also has a lasting negative impact on learning motivation and long-term learning outcomes (Luo et al., 2022). Therefore, a deeper exploration of the internal mechanisms and instructional strategies of L2 writing is of great theoretical and practical significance for optimizing language education and promoting learners' holistic development.

It is undeniable that at various stages of L2 writing training, regardless of the degree of L1 involvement, L1 always influences L2 writing (Van et al., 2009), especially for the beginner-learners (Karim & Nassaji, 2013; Ströbel et al., 2020; Moussa et al., 2016). In the field of English as a L2 writing research, scholars have gradually recognized that CS is not merely a sign of insufficient language ability but may play a constructive role in the writing process. Specifically, CS provides learners with important cognitive and emotional support in stages such as brainstorming (Zheng & Drybrough, 2023) and revision (Wang & Li, 2022). For lower-level learners in particular, if their limited proficiency in the target language is strictly constrained by monolingual norms, it may actually inhibit their willingness to express ideas and the development of their thoughts (Salmerón, 2022). In contrast, the strategic use of CS helps alleviate writing anxiety (Guimong et al., 2025), maintain fluency (Kumar et al., 2021), and promote language awareness through interactive feedback (Rafi & Morgan, 2023). Consequently, recent teaching practices have increasingly favored the active integration of CS in group discussions (Cárdenas & Ponzio, 2021), peer assessments (Paul Sun & Jun Zhang,

2022), and other activities, viewing it as an effective strategy to enhance writing skills (Shaha et al., 2024). In this sense, CS may function as a cognitive scaffold by allowing CSL learners to draw on familiar linguistic resources to support planning, formulation, and revision in writing tasks.

However, in the context of CSL, research on CS and its teaching applications remains markedly different. Although some studies have acknowledged the presence of CS phenomena in Chinese language learning, most explanations still remain at the level of "communication strategies" or "expedient solutions" (e.g., Xu, 2021), suggesting that CS is primarily used to increase task efficiency or compensate for language deficiencies (Wu, 2023). Corresponding teaching discussions tend to take a cautious or even negative stance, emphasizing the importance of monolingual learning norms (Yu, 2025) and failing to incorporate CS systematically into teaching resources or frameworks for developing language skills. This attitude contrasts sharply with the increasingly open and functional approach to CS in English as a L2 writing research.

Based on these distinctions, this study identifies an important research gap: Does CS have a similarly positive function in CSL writing environments, as it does in English contexts? Answering this question will not only deepen our understanding of the CSL writing process but also provide more inclusive and supportive pathways for teaching practice.

Language Output Hypothesis (Swain & Lapkin, 1995)

Swain and Lapkin's (1995) Language Output Hypothesis was developed in response to Crookes' (1991) critique of the Input Hypothesis (Krashen, 1989). Swain and Lapkin conducted a study with Grade 6 students learning French in an immersion program in Canada. In this immersive environment, many courses were taught in French, giving students ample opportunities for comprehensible input. However, Swain and Lapkin's (1995) findings showed that although the students' listening and reading skills improved significantly, their speaking and writing skills remained noticeably underdeveloped. Despite receiving input, students were still clearly identifiable as non-native speakers and writers due to the lack of output practice. Based on this, Swain and Lapkin (1995) discussed the functions of output and proposed a process model in which language output is a crucial component of SLA.

The Language Output Hypothesis (Swain & Lapkin, 1995) posits that communicative "pushed output" is key to the learning process, while comprehensible output is the goal. When learners produce output that is not understood by their interlocutor, they will continue to try, adjusting their language forms with the help of feedback from the listener. This process aids in language acquisition. Simply encouraging students to speak without meaningful interaction and feedback will not lead to acquisition but will only help them develop basic skills (Swain & Lapkin, 1995). In contrast, when communication is not smooth, learners will adjust their language forms—both semantically and grammatically—often attempting new structures to make themselves understood (Swain & Lapkin, 1995). Therefore, "pushed output" not only motivates learners to communicate more accurately and fluently, but it also encourages them to pay attention to the features of the language, thus improving their accuracy in expression.

Empirical studies have confirmed that increasing the frequency of language output can significantly help enhance learners' language abilities. Researchers who support the Output Hypothesis (e.g., Lzumi, 2002; Swain & Lapkin, 2002) have analyzed and argued for the

hypothesis from various perspectives. This has led to the development of teaching methods that promote learning through writing, such as "writing for learning" (Wang Chuming, 2005; Su & Shi, 2020), which emphasizes the positive role of L2 writing in SLA/SLL.

However, the above research has mainly focused on English as a L2, where it is already well-established and supported by empirical evidence. In contrast, research on CSL writing is still in its infancy, with relatively few studies and limited foundational research (Luo, 2011). Existing CSL writing studies mainly focus on learners at intermediate or advanced levels (Wang, 2020), overlooking the necessity of Chinese L2 writing at the beginner level. Moreover, there is a lack of targeted, quantitative research aimed at improving the writing performance of beginner-level Chinese learners.

Based on these gaps, the present study adopts an experimental research design, dividing beginner-level Chinese learners into an experimental group and a control group over a semester (4 months). The aim is to investigate the effect of CS on beginner-level Chinese learners, with the hope of providing insights that could help improve learners' Chinese language acquisition. The study proposes the following research questions:

(1) RQ1: Is there any significant difference in the pre-test results between the experimental and control groups of CSL learners?
(2) RQ2: Is there any significant difference in the post-test results between the experimental and control groups of CSL learners?
(3) RQ3: Is there any significant difference between the pre-test and post-test results within the control group of CSL learners?
(4) RQ4: Is there any significant difference between the pre-test and post-test results within the experimental group of CSL learners?
Based on these research questions, the following hypotheses are formulated:
Ho1: There is no significant difference between the experimental and control groups regarding CSL learners' pre-test results.
Ha2: There is a significant difference between the experimental and control groups regarding CSL learners' post-test results.
Ha3: There is a significant difference between the pre-test and post-test results within the control group of CSL learners.
Ha4: There is a significant difference between the pre-test and post-test results within the experimental group of CSL learners.

Methodology

Participants

To ensure the rigor of the study, participants were selected to have relatively consistent proficiency in Chinese. The study employed a purposive sampling method, selecting three parallel classes (six classes in total, labeled A-F, n=384) from two comprehensive public universities in Xi'an, University A and University B, all taught by the same instructor. After explaining the study process and objectives, 365 beginner-level Chinese learners agreed to participate in the study (Table 1). All participants were proficient in English (IELTS > 6.0), ensuring that they were capable of using English Chinese CS.

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

To ensure comparability between groups and the reliability of the results, one class from each university was randomly assigned to the experimental group (n=125), and two classes from each university were assigned to the control group (n=240). Although the group sizes were unequal, both groups were drawn from the same instructional context and followed the same curriculum. All classes were aligned in terms of course type (Comprehensive Chinese), teaching duration (16 weeks), semester lesson allocation (128 hours), weekly class hours (6 hours), class duration (45 minutes per session), student type (degree-seeking students), textbook (HSK 1), homework assignments (content and frequency), and teaching schedule, differing only in the writing intervention.

According to the demographic information, among the 365 participants, 63% were male (n=230) and 37% were female (n=135). In terms of age, 57.5% were between 17-20 years old (n=210), 41.9% were between 21-24 years old (n=153), and 0.6% were over 25 years old (n=2).

Table 1: Samples of This Study

	University A	University B	Total
Control Group	A (62) C (67)	E (45) F (66)	240
Experimental Group	B (64)	D (61)	125
Total	193	172	365

Experimental Procedure

The experimental phase of this study spanned an entire Chinese learning semester (16 weeks). Students completed Chinese writing tests at four intervals throughout the semester, specifically in weeks 1, 5, 10, and 15, resulting in a total of four writing tests. To more accurately observe changes in learners' Chinese writing performance, the four writing tests were consistent in terms of topic (Self Introduction), word count requirement (at least 50 words/characters), time limit (15 minutes), and keyword prompts (name, age, nationality, hobbies, experience learning Chinese, and feelings about coming to China). However, the writing requirements differed between two groups: experimental learners were required to use English Chinese CS during the first three writing tests, while the fourth writing test required them to write solely in Chinese. In contrast, control learners were required to write solely in Chinese for all four tests. Furthermore, learners were asked to provide their real names and student ID to track changes in their writing performance.

To more directly examine the impact of CS on Chinese language learners' writing performance, the study sought to focus on learners' self-initiated CS behaviors while controlling for external interventions, and on this basis to systematically analyze the mechanisms through which CS influences Chinese writing performance.

First, during the writing tasks, in order to avoid interference from teacher guidance on learners' writing autonomy, instructors were explicitly instructed not to provide any form of writing framework, templates, or content-related guidance. Instead, the researcher provided a unified explanation of the scoring criteria prior to the writing tasks—namely, that less use of the L1 in writing would result in higher scores—so as to encourage learners to consciously regulate their use of CS. Additionally, invigilators were present in the classrooms to ensure that students completed the writing tests independently. This design aimed to ensure that learners made

language choices in a fully autonomous writing environment, thereby allowing a clearer observation of the direct relationship between CS and writing performance.

Second, to more thoroughly compare differences in L2 writing ability between two groups, the CS scaffolding previously provided to the experimental group was removed in the fourth writing task, so that learners in both groups completed the task under equivalent conditions. This arrangement helped to isolate the effects of scaffolding and to more accurately reveal the relationship between learners' L2 writing proficiency and their patterns of CS use in a more natural writing context.

To reduce the subjectivity of the writing assessment, each writing test was evaluated by two Chinese writing specialists. The scoring criteria followed the HSK writing section, with a maximum score of 30 points (Liu & Shang, 2014: 206). After grading, to facilitate independent sample t-tests and paired sample t-tests analysis using SPSS 27.0, writing scores were categorized into five levels: Level 1 (0-6 points), Level 2 (7-12 points), Level 3 (13-18 points), Level 4 (19-24 points), and Level 5 (25-30 points). This study utilized the first (pre-test) and fourth (post-test) writing test scores to investigate the intervention effect of CS on Chinese writing performance.

Instruments

The Chinese writing test for the pre-test and post-test was selected from the Chinese writing practice book Chinese Writing Tutorial (Zhao & Zhu, 2003), Unit 2, titled "Self-Introduction." This book was published by the Beijing Language and Culture University Press, which is a nationally recognized top-tier publishing institution (National First-Class Publisher). In China, over 90% of universities that enrol international students use textbooks from this publisher for their Chinese language programs (Chen & Li, 2020). Therefore, the content validity of the test can be assured.

The reliability of the test was assessed through a pilot test, using pre-test and post-test results to check the consistency of the test. The reliability was calculated by analysing the correlation coefficient between the two sets of test results (Chua, 2013). A total of 53 learners, who had the same Chinese learning background as those in the formal experiment, participated in the pilot test and retest, which took place one month after the initial test. The Pearson correlation coefficient was found to be 0.824, which is significant at the .01 level. According to Chua (2013), a research instrument is considered reliable if the correlation value is 0.65 or higher. Therefore, this Chinese writing test is deemed reliable for use in the present study.

After data entry and initial screening, 365 valid samples, free from outliers and missing values, were included for analysis. Independent sample t-tests and paired sample t-tests can be conducted on these data. Whether respondents' post-test scores were significantly different from their pre-test scores, both in the experimental group and in the control group, will be discussed in the following section on findings.

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

Findings

Independent Sample t-Test

To ensure the rigor of the study, we first employed purposive sampling to ensure that all participants had similar levels of Chinese proficiency. Additionally, SPSS 27.0 software was used to conduct independent sample t-tests on the pre-test scores of the experimental and control groups to enhance the validity of the study (Table 2), and to address RQ 1 and RQ 2.

Step 1: Analyzing the pre-test differences between the experimental and control groups to address RQ 1. The independent sample t-test for the pre-test (Table 2) showed that the experimental group had an average score (M=1.42) that was slightly higher than the control group (M=1.46) by no more than 0.1 points. The difference in average scores between the two groups was not significant (t = -0.436, p = 0.663). This indicates that, despite the different writing requirements, both groups were beginner-level Chinese learners with limited Chinese proficiency, particularly in writing. Therefore, no significant difference was found between the two groups in the pre-test, supporting Ho1. The pre-test results ensure comparability between the groups, eliminating the effect of baseline differences, and guaranteeing that any significant difference in the post-test can be attributed to the English Chinese CS writing intervention.

Step 2: Analyzing the post-test differences between the experimental and control groups to address RQ 2. The experimental group (M=3.84) scored nearly 0.5 points higher than the control group (M=3.38), and the difference between the groups was statistically significant (t = -4.346, p = 0.000). The effect size for the between-group post-test comparison (d = 0.232) was below the conventional threshold for a medium effect, indicating a small effect. Nevertheless, this difference was statistically significant, suggesting that the English Chinese CS writing intervention contributed to measurable improvements in the experimental group, thereby supporting Ha2. Although the magnitude of the effect was modest, it may still have practical relevance in real CSL writing classrooms, particularly when learners consciously draw on English–Chinese CS as a supportive strategy in writing.

Moreover, regarding the standard deviation, the experimental group's pre-test (SD=0.776 vs. 0.827) and post-test (SD=0.933 vs. 0.995) standard deviations were consistently lower than those of the control group. This suggests that the experimental group exhibited less variability in performance, implying that CS may have had a "stabilizing" or "converging" effect on the overall writing performance, leading to more consistent results among the experimental group participants.

Table 2: Independent Sample T-Test for Pre-test and Post-test

	Group	*N*	*M*	*SD*	*t*	*p*	*d*
pre-test	Control	240	1.42	.827	-.436	.663	—
	Experimental	125	1.46	.776			
post-test	Control	240	3.38	.995	-4.436	.000	.232
	Experimental	125	3.84	.933			

Note: d = Cohen's d

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

Paired Sample t-Test

This study also employed paired sample t-tests to assess whether there were significant differences between the pre-test and post-test scores for both the experimental and control groups, in order to address RQ 3 and RQ 4.

Step 1: Analysing the pre-test and post-test differences in the control group to address RQ3. The paired sample t-test results (Table 3) show that the control group's pre-test average score (M=1.42) was 1.96 points higher than the post-test average score (M=3.38), with a significant difference ($t = -37.975$, $p < .05$). This indicates that, with the passage of time, the Chinese writing level of the control group improved, and the difference between the pre-test and post-test scores was statistically significant, supporting Ha2. The effect size for the within-group pre–post difference in the control group ($d = 0.731$) exceeded the conventional threshold for a medium effect, indicating a relatively large within-group change over time. This finding suggests that conventional writing instruction was associated with substantial improvement in Chinese writing performance among beginner-level learners.

Step 2: Analysing the pre-test and post-test differences in the experimental group to address RQ 4. Table 3 shows that the experimental group's post-test average (M=3.84) was 2.39 points higher than the pre-test average (M=1.45), with a significant difference ($t = -45.226$, $p < .05$), supporting Ha3. The effect size for the within-group pre–post difference in the experimental group ($d = 0.812$) indicates a large improvement in writing performance over time. A similarly large within-group effect was observed in the control group ($d = 0.731$), suggesting that conventional writing instruction also led to substantial gains. When the two effect sizes are considered descriptively, learners in the English Chinese CS condition exhibited a slightly greater magnitude of improvement during the intervention period.

Moreover, in terms of standard deviation, both the control group (SD=0.995 vs. 0.827) and the experimental group (SD=0.933 vs. 0.776) showed that the post-test standard deviations were higher than the pre-test standard deviations. This suggests that both types of writing training led to increased variability in individual performance as time progressed. Such variability may be attributed to differences in learning speed, adaptability, and other individual factors.

Table 3: Paired Sample T-Test for Control Group and Experimental Group

	Test	*N*	*M*	*SD*	*t*	*p*	*d*
Control Group	pre-test	240	1.42	.827	-37.975	.000	.731
	post-test	240	3.38	.995			
Experimental Group	pre-test	125	1.45	.776	-45.226	.000	.812
	post-test	125	3.84	.933			

A comparison of the experimental group's pre-test and post-test writing samples (Figure 1 and Figure 2) reveals developmental changes in sentence construction and textual organization.

In the pre-test, when CS was permitted, learners' writing was characterized by short and relatively simple sentences. Despite this structural simplicity, CS enabled learners to construct complete texts and to externalize ideas that might otherwise have remained underdeveloped in Chinese. At the same time, the use of CS appeared to help learners identify gaps in their Chinese linguistic knowledge during the writing process.

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

After three rounds of CS-supported writing practice, learners demonstrated increased ability to actively compensate for these gaps. This change became evident in the post-test, when learners were required to write exclusively in Chinese. Sentence length increased, and the use of compound and complex sentences became more frequent, accompanied by improved clause linkage, clearer logical relations, and greater overall textual coherence.

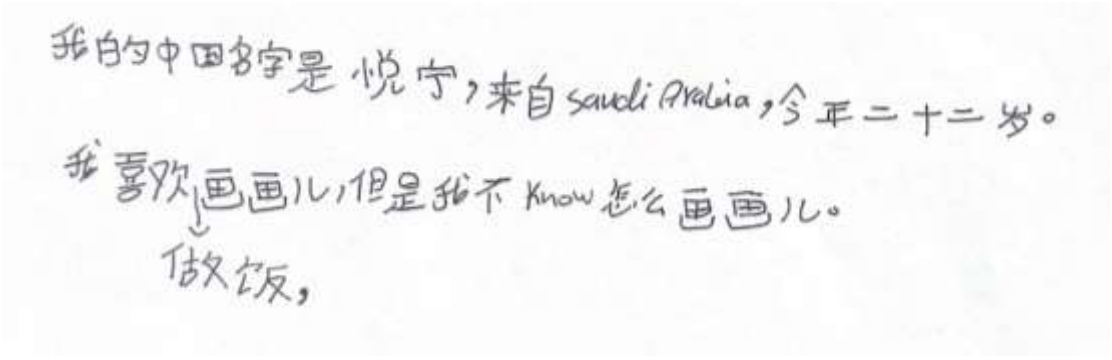


Figure 1: Example Of Pre-Test Writing

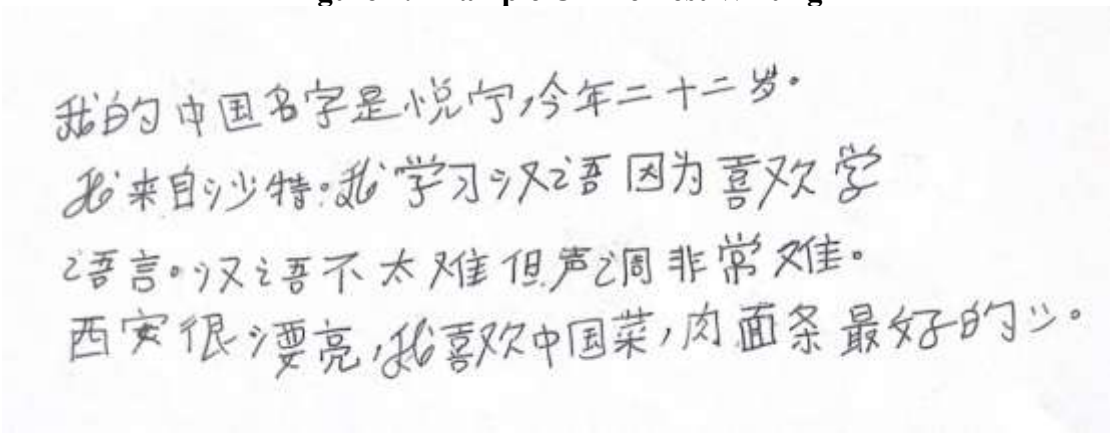


Figure 2: Example Of Post-Test Writing

Conclusion

This study systematically investigated the impact of English-Chinese CS writing intervention on beginner-level Chinese language learners' writing, and compared its effectiveness with conventional writing training. Despite the unequal group sizes, the analyses focused on within- and between-group comparisons using the same statistical procedures across groups. Based on inter-group balance tests and subsequent statistical analyses, three key conclusions were drawn from this research.

CS has a Significant "Value-Added Effect"

The independent sample t-test confirmed that the experimental group scored significantly higher in the post-test compared to the control group ($p < .001$), resulting in a meaningful small effect size ($d = 0.232$). Although the effect sizes did not reach the level of large effects, such moderate effects may still play an important facilitative role in enhancing the writing-related emotions of beginning learners of CSL. They also provide useful theoretical reference points and pedagogical implications for explaining the relatively slow development of Chinese writing.

International Journal of Humanities, Philosophy and Language
IJHPL
EISSN : 2600-8270
Volume 9 Issue 33 (March 2026) PP. 01-18

More importantly, the paired-samples t-test showed substantial pre–post improvement in both groups, with a large within-group effect observed in the (d = 0.812) and a slightly smaller effect in the control group (d = 0.731). Taken together with the between-group results, these findings suggest that English Chinese CS functions as an effective writing intervention and may offer additional pedagogical benefits beyond those achieved through conventional instruction, thereby further supporting learners' development in Chinese writing.

Qualitative evidence from the writing samples suggests that CS-based writing may support Chinese beginner learners' text-level planning and awareness of linguistic gaps. Although the initial CS use was associated with shorter and simpler sentences, learners gradually produced longer and more structurally complex sentences when CS was no longer permitted, indicating a potential benefit of the intervention for writing development at the beginner level.

This supports the core idea of the theory: when learners are guided to consciously engage in CS between their native language and the target language during writing, this process constitutes the "pushed output" described by Swain and Lapkin (1995). Learners must actively address the gaps between the two languages, searching for appropriate target language forms, which deepens their understanding and internalization of Chinese. The greater improvement observed in the experimental group suggests that CS may function as a cognitive scaffold that supports learners' writing processes.

CS Promotes More Stable and Balanced Group Learning Outcomes

This study found that the control group also made significant progress under conventional training (d = 0.731), which affirms the value of traditional writing training. However, the data also showed that the experimental group's intra-group standard deviation remained lower than that of the control group in both the pre-test and post-test. This suggests that English Chinese CS may have a "converging" or stabilizing effect on learners' writing performance, making the overall performance in the experimental group more balanced and reducing the likelihood of extreme low scores. This resulted in more predictable overall gains in writing proficiency.

The reason could be that the specific output form of CS systematically guides learners to focus on the interface and correspondence between the two languages, providing a relatively unified "attention" focus and "hypothesis testing" framework. Compared to free writing, this guided output reduces randomness in terms of "what to focus on" and "what to test," making the learning process and outcomes more stable and predictable.

CS Intervention Regulates Individual Differentiation Patterns in Writing

Both the experimental and control groups showed greater intra-group variation in the post-test than in the pre-test, reflecting an inevitable trend of individual differentiation due to differences in learning speed, cognitive styles, and adaptability. However, as indicated by the second conclusion, CS writing intervention displayed a certain "convergence" effect in the experimental group, suggesting that specific instructional interventions can regulate the extent and form of this differentiation. Specifically, under conventional instruction, individual differences naturally expand over time, whereas with CS intervention, the teaching process not only promotes overall progress but also seems to "flatten" the distribution of learning outcomes, leading to a more concentrated score distribution. This finding suggests that the choice of

intervention not only affects "average improvement," but also profoundly influences the internal structure and developmental trajectory of a learner group.

Therefore, in pursuit of teaching efficiency, consciously adopting teaching strategies that regulate differentiation may become an important pathway to achieving both "quality improvement" and "equity," offering new theoretical perspectives and practical insights for teaching heterogeneous classes. This study not only confirms the effectiveness of CS writing intervention but also provides a mechanistic explanation for its effects from the perspective of the Output Hypothesis. The results suggest that CS essentially creates a reinforced, guided output environment, effectively triggering the cognitive facilitation, attention, and hypothesis testing functions of output, thereby promoting the acquisition of CSL writing skills. This offers new ideas and empirical evidence for further designing and optimizing L2 writing tasks under the Output Hypothesis framework.

Suggestions and Limitations

Suggestions for Chinese Teachers

For Chinese language teachers, the results of this study first suggest that the traditional view of learners' native languages as mere interference should be altered. Instead, their native language can be seen as a valuable teaching resource. This process should transform from unconscious mixing to a purposeful, controllable learning tool.

Finally, considering the more concentrated score distribution observed in the experimental group, teachers may intentionally use CS exercises when dealing with classes that have significant individual differences, in hopes of enhancing overall proficiency while promoting more balanced class development.

Suggestions for Chinese Learners

For Chinese learners, especially beginner writers, the first step is to develop a correct understanding of CS. They should recognize that strategically utilizing their native language when encountering writing difficulties is a positive problem-solving strategy, rather than a sign of insufficient language ability. Secondly, learners can consciously adopt a "bilingual brainstorming, Chinese writing" approach: first use their familiar language (e.g., English) to organize ideas and logic, then focus on finding the accurate Chinese expressions. In the process, they should consciously compare the differences between the two languages. Through such deliberate practice, learners will not only overcome writing blockages but also deepen their understanding of the characteristics of the Chinese language.

Limitations and Future Research Directions

Despite the valuable findings, this study has several limitations. First, in terms of sample size and duration, the number of participants was limited, and the intervention time was relatively short. Moreover, no delayed post-test was administered. As a result, it was not possible to verify whether the writing skills associated with CS demonstrate long-term retention or transfer effects. Future studies may adopt longitudinal designs by expanding the sample size, extending the duration of the intervention, and incorporating delayed post-tests to examine the sustainability of the observed effects. Second, in terms of measurement, the study primarily

relied on quantitative writing scores and did not deeply explore the specific dimensions of how CS affects writing quality, such as syntactic complexity, lexical richness, and learners' internal cognitive processes. Future research could combine text analysis, interviews, or oral reports with qualitative methods for a deeper investigation. Finally, this study treated CS as a whole intervention method; future research could further break it down into different types (e.g., lexical, syntactic, or discourse-level switches) and explore the specific impacts of different types of CS on writing output. This could provide more refined guidance for L2 teaching.

Acknowledgements:	I would like to express my sincere gratitude to Dr. Yap Teng Teng for her meticulous guidance throughout this study and for her insightful and constructive suggestions, which greatly contributed to the development and refinement of this research. I am also deeply grateful to Professor Chew Fong Peng for her intellectual inspiration and valuable perspectives on the research design and overall conceptual framework, which significantly shaped the direction of this study
Funding Statement:	No Funding
Conflict of Interest Statement:	The authors declare that there is no conflict of interest regarding the publication of this paper. All authors have contributed to this work and approved the final version of the manuscript for submission to the International Journal of Humanities, Philosophy and Language (IJHPL).
Ethics Statement:	This study was conducted in accordance with ethical research standards. All procedures involving human participants were reviewed and approved by the Universiti Malaya Research Ethics Committee (UMREC), approval number UM.TNC2/UMREC_3641. Informed consent was obtained from all participants prior to data collection. Participation was voluntary, and respondents were assured of confidentiality and anonymity. The data collected were used solely for academic purposes.
Author Contribution Statement:	All authors contributed significantly to the development of this manuscript. [Zhao Yunlu] was responsible for the conceptualization, literature review, drafting, methodology, data collection, and overall supervision of the study. [Yap Teng Teng] handled analysis and interpretation of results. [Chew Fong Peng] contributed to the critical revision of the manuscript. All authors read and approved the final version of the manuscript prior to submission.

References

Auer, P. (1984b). *On the meaning of conversational code-switching*. In P. Auer & A. di Luzio, (Eds.), *Interpretive Sociolinguistics* (pp.87-108). Tübingen: Gunter Narr Verlag.

Alić Topić A. (2022). Code-switching in second language teaching of English: Does it matter? *MAP Education and Humanities, 2*(1), 8-17. https://doi.org/10.53880/2744-2373.2022.2.1.8

Archila, P. A., Molina, J., & de Mejía, A. M. T. (2021). Fostering bilingual scientific writing through a systematic and purposeful code-switching pedagogical strategy. *International Journal of Bilingual Education and Bilingualism*. https://doi.org/10.1080/13670050.2018.1516189

Cárdenas Curiel, L., & Ponzio, C. M. (2021). Imagining multimodal and translanguaging possibilities for authentic cultural writing experiences. *Journal of Multilingual Education Research, 11*(1), 6. https://doi.org/10.5422/jmer.2021.v11.79-102

Chen Wanchao & Li Jie. (2020). Performance management problems and countermeasures of professional publishing houses: a case study of Beijing Language and Culture University Press. *Communication and copyright* (11),119-120+123. doi:10.16852/j.cnki.45-1390/g2.2020.11.036.

Chua, Y. P. (2013). *Mastering research statistics*. Selangor, KL: McGraw-Hil Education (Malaysia) Sdn Bhd.

Cook, V. (2001). Using the first language in the classroom. *Canadian modern language review, 57*(3), 402-423. https://doi.org/10.3138/cmlr.57.3.402

Crookes, G. (1991). Second language speech production research: A methodologically oriented review. *Studies in Second Language Acquisition, 13*(2), 113-131. https://doi.org/10.1017/S0272263100009918

Cummins J, Swain M. (1986). *Blingualism in Education: Aspects of Theory, Research and Practice.* Harlow: Longman:101-105.

Fishman, J. A. (1977). *Bilingual Education: Current Perspectives*. Arlington, VA: Center for Applied Linguistics.

Gumperz, J. J. (1972). *Directions in sociolinguistics: The ethnography of communication*. Holt, Rinehart and Winston.

Grebeshkova, O. (2017). *Written code-switching in the notes of second-language learners in bilingual classroom environments* (Doctoral dissertation, Université de Lyon).

Guimong, R. S., Quilang, A. J., Yamis, E., Arante, M. R., & Quiño-Justol, J. (2025). The effectiveness of code-mixing on English language skills among grade 10 students. *International Journal of Multidisciplinary Educational Research and Innovation. 3*(2), 310-329.

Gumperz, J. J. (1977). The sociolinguistic significance of conversational code-switching. *RELC journal, 8*(2), 1-34. https://doi.org/10.1177/003368827700800201

Haugen, E. (1953). *The Norwegian language in America, a study in bilingual behavior, volume 2: The American dialects of Norwegian*. University of Pennsylvania Press.

Izumi, S. (2002). Output, input enhancement, and the noticing hypothesis: An experimental study on ESL relativization. *Studies in second language acquisition, 24*(4), 541-577. https://doi.org/10.1017/S0272263102004023

Karim, K., & Nassaji, H. (2013). First language transfer in second language writing: an examination of current research. *Iranian Journal of Language Teaching Research, 1*(1), 117-134.

Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *The modern language journal, 73*(4), 440-464. https://doi.org/10.2307/326879

Kumar, T., Nukapangu, V., & Hassan, A. (2021). Effectiveness of code-switching in language classroom in India at primary level: a case of L2 teachers' perspectives. *Pegem Journal of Education and Instruction, 11*(4), 379-385. https://doi.org/10.47750/pegegog.11.04.37

Kumar T, Nukapangu V, Hassan A, (2021). Effectiveness of code-switching in language classroom in India at primary level: a case of L2 teachers' perspectives. *Pegem Journal of Education and Instruction, 11*(4), 2021, 379-385. 10.47750/pegegog.11.04.37

Le, T. N. H. (2022). A study on code-switching in oral and texting communication of university lecturer and students. *International Journal of TESOL & Education, 2*(3), 149-166. https://doi.org/10.54855/ijte.222310

Liu Zuoqing, Shang Xiaomeng (eds.) (2014). *Passing the new HSK (level 5) writing classification training*. Beijing: Beijing Language and Culture University Press

Luo, M., Chano, J., Chittranun, T., & Nithideechaiwarachok, B. (2022). Improving Chinese reading and writing skills: second language acquisition theory perspective. *Journal of Educational Issues, 8*(2), 325-346. 10.5296/jei.v8i2.20148

Luo Qingsong. (2011). A review of research on teaching Chinese as a foreign language. *Language Teaching and Research*, (03),29-36.

MEDHIN, M. M., & Mohammed, N. (2024). examining the impact of code-switching on students'paragraph writing in efl classrooms. *journal of english language teaching, 6*(1), 204-218. 10.56185/jelita.v6i1.861

Moussa, A., Sajjad, P., & Mehdi, N (2016). Improving the quality of second language writing by first language use. *Theory and Practice in Language Studies, 6*(4), 767. 10.17507/tpls.0604.14

Murtiningsih, S. R., Munawaroh, M., & Hidayatulloh, S. M. M. (2022). Code-switching in EFL classrooms: factors influencing teachers to use code-switching and its types used in the classrooms. *Journal on English as a foreign language, 12*(2), 318-338. https://doi.org/10.23971/jefl.v12i2.3941

Mustafa Altun （2021） code-switching in l2 classrooms: a useful strategy to reinforce learning. *Canadian Journal of Language and Literature Studies* Vol. 1(1), pp. 21-26 10.53103/cjlls.v1i1.13

Myers-Scotton, C. (1993). Common and uncommon ground: Social and structural factors in codeswitching. *Language in society, 22*(4), 475-503. https://doi.org/10.1017/S0047404500017449

Myers-Scotton, C. (1995). 11 A Lexically Based Model Of Code-Switching. In L. Milroy & P. Muysken (Eds.), *One speaker, two languages: Cross-disciplinary perspectives on code-switching* (pp. 233–256). Cambridge University Press.

Paul Sun, P., & Jun Zhang, L. (2022). Effects of translanguaging in online peer feedback on Chinese university English-as-a-foreign-language students' writing performance. *Relc Journal, 53*(2), 325-341. https://doi.org/10.1177/00336882221089051

Pengchong Zhang & Suzanne Graham. (2020). Vocabulary learning through listening: Comparing L2 explanations, teacher codeswitching, contrastive focus-on-form and incidental learning. *Language Teaching Research*. doi:10.1177/1362168819829022.

Plata-Ramírez, J. M. (2016). Language switching: Exploring writers' perceptions on the use of their L1s in the L2 writing process. *Revista Internacional De Lenguas Extranjeras/International Journal of Foreign Languages*, (5), 47-77. https://doi.org/10.17345/rile5.1003

Poplack, S. (1980). Deletion and disambiguation in Puerto Rican Spanish. *Language, 56*(2), 371-385. 10.1353/lan.1980.0033

Rafi, A. S. M., & Morgan, A. M. (2023). Translanguaging and power in academic writing discourse: The case of a Bangladeshi university. *Classroom Discourse, 14*(2), 192-214. https://doi.org/10.1080/19463014.2022.2046621

Salmerón, C. (2022). Elementary translanguaging writing pedagogy: A literature review. *Journal of literacy research, 54*(3), 222-246. https://doi.org/10.1177/1086296X221117188

Sampurna, B. (2023). Code-switching in English classroom. *Jurnal Syntax Transformation, 4*(3), 40-43. https://doi.org/10.46799/jst.v4i3.706

Shaha, A. A., Khanb, M., Ahmadc, N., Mehmoodd, S., Khane, M., & Ahmadf, I. (2024) Review of the Impacts of Code-Switching on Writing Skill of English Language Learners. *International Journal of Social Science Archives, 7*(2), 1109-1116

Shin, D., Kwon, S. K., & Lee, Y. (2021). The effect of using online language-support resources on L2 writing performance. *Language Testing in Asia, 11*(1), 1-23. https://doi.org/10.1186/s40468-021-00119-4

Sibongile S., Ansurie P. (2021) Why do teachers code-switch when teaching English as a second language? *South African Journal of Education, 41*(1), S1-S7. https://doi.org/10.15700/saje.v41ns1a1934

Simon, D. L. (2001). Towards a new understanding of codeswitching in the foreign language classroom. *Trends in linguistics studies and monographs, 126*, 311-342.

Skiba, R. (1997). Code switching as a countenance of language interference. *The internet TESL journal, 3*(10), 1-6. http://iteslj.org/Articles/Skiba-CodeSwitching.html

Ströbel, M., Kerz, E., & Wiechmann, D. (2020). The relationship between first and second language writing: Investigating the effects of first language complexity on second language complexity in advanced stages of learning. *Language Learning*, *70*(3), 732-767. https://doi.org/10.1111/lang.12394

Su Jianhong & Shi Hui. (2020). Comparative analysis of "writing to promote learning" research at home and abroad. *Examination and Evaluation (University English Teaching and Research Edition)*, (05),27-30.https://doi.org/10.16830/j.cnki.22-1387/g4.2020.05.006.

Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied linguistics, 16*(3), 371-391. https://doi.org/10.1093/applin/16.3.371

Swain, M., & Lapkin, S. (2002). Talking it through: Two French immersion learners' response to reformulation. *International journal of educational research, 37*(3-4), 285-304. https://doi.org/10.1016/S0883-0355(03)00006-5

Uzairovich, A. H. (2025). Code-switching as a strategy to support writing development and critical thinking in multilingual EFL learners. In *London International Monthly Conference on Multidisciplinary Research and Innovation (LIMCMRI)* (Vol. 2, No. 1, pp. 566-572). https://worldsciencepub.com/index.php/lmc/article/view/599

Van Weijen, D., Van den Bergh, H., Rijlaarsdam, G., & Sanders, T. (2009). L1 use during L2 writing: An empirical study of a complex phenomenon. *Journal of Second language writing, 18*(4), 235-250. https://doi.org/10.1016/j.jslw.2009.06.003

Veerappan, V., Yusof, D. S. M., & Aris, A. M. (2013). Language-switching in L2 composition among ESL and EFL undergraduate writers. *The linguistics journal, 7*(1), 209-228.

Verschueren, J. (2000). Notes on the role of metapragmatic awareness in language use. *Pragmatics, 10*(4), 439-456. https://doi.org/10.1075/prag.10.4.02ver

Wang, C. M. (2005). The length approach to foreign language writing. *Foreign Languages in China*, (01). 45-49. https://doi.org/10.13564/j.cnki.issn.1672-9382.2005.01.010.

Wang, Y. (2020). Developing advanced CFL learners' academic writing skills: Theory and practice. *The Palgrave Handbook of Chinese Language Studies*, 1-38. 10.1007/978-981-13-6844-8_57-1

Wang, Y., & Li, D. (2022). Translanguaging pedagogy in tutor's oral corrective feedback on Chinese EFL learners' argumentative writing. *Asian-Pacific Journal of Second and Foreign Language Education*, 7(1), 33. https://doi.org/10.1186/s40862-022-00170-5

Wardhaugh, R. (1998). *An introduction to sociolinguistics (3rd ed.)*. Maiden, MA: Blackwell.

Willis J. (1981). *Teaching English through English*. Harlow: Longman.

Wu Jifeng. (2023). Research on the measurement of language characteristics of academic Chinese writing for Chinese second speakers. *Language and writing applications* (03),51-61. 10.16499/j.cnki.1003-5397.2023.03.005.

Wu Xinyue. (2023). Analysis of the application of code conversion strategy in international Chinese classrooms. *Chinese character culture*(S1),155-157. CNKI:SUN:HZWZ.0.2023-S1-059.

Xu Jingyu. (2021). *Investigation and Research on Language Code Conversion for Primary Chinese Classroom Teaching by Chinese Teacher Volunteers in Thailand* (Master's Thesis, Yunnan Normal University). https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202102&filename=1021621360.nh

Yu Luoqi. (2025). *Research on the Conversion of Extracurricular Communication Code for International Students in the Environment of International Chinese Education* (Master's Thesis, Chinese University of Foreign Studies). https://doi.org/10.27316/d.cnki.gswyu.2025.001383.

Zhao, J., & Zhu, B. (Eds.). (2003). *Chinese Writing Tutorial*. Beijing: Beijing Language and Culture University Press.

Zheng, Z. Z., & Drybrough, A. G. (2023). Translanguaging in the academic writing process: Exploring Chinese bilingual postgraduate students' practices at a British university. *Journal of English for Academic Purposes, 65*, 101269. https://doi.org/10.1016/j.jeap.2023.101269