

The Cognitive Factors of Code-Switching Among Bilingual Primary School Students: A Case Study

Melisa Indrianie Effendie¹, Bahing², Indra Perdana³, Natalina Asi⁴, Misrita⁵, Ristati⁶

English Language Education Postgraduate Program, University of Palangka Raya, Indonesia

¹ mlsind134@gmail.com, ² bahingparay@gmail.com, ³ indraperdana86@gmail.com,

⁴ natalina@edu.upr.ac.id, ⁵ ritaqalang3@gmail.com, ⁶ ristati.tati@yahoo.com

Abstract

This research examines the cognitive factors which influenced code-switching phenomenon among bilingual primary students at Global Nusantara National Plus Primary School sampit. To achieve the result, the research use a qualitative case study approach, five bilingual students and the science teacher that been purposively sampled were been observed and interview to gather data of code switching and pedagogical insight. The results showed the cognitive factors of code-switching such as Helping understand (41.30%) and Speaking Easier (32.60%) as the most cognitive factors that been used by the bilingual students while performing code-switching as their strategy for effective communication and natural expression. Language difficulties (23.91%) and Self Editing (2.17%) were also observed as the least cognitive factors by the bilingual students while performing cod-switching during the learning in class. These findings brodens the understanding of code switching as a sophisticated cognitive and pedagogical mechanism that enhances how communication are evolving and advocating a valuable cognitive strenght in bilingual education in the future.

Keywords: Code-Switching; Bilingual; Primary School

INTRODUCTION

The growing global prominence of English has significantly influenced educational landscapes, particularly in Indonesia, where parents are increasingly prioritizing English exposure for their children (Lin & Lei, 2021; Sukmawati & Pujiani, 2024). This demand has spurred the emergence of schools adopting international standards or prioritizing English as a medium of instruction (Indriani et al., 2021). Bilingualism, beyond its communicative advantages, has been recognized for its cognitive benefits, promoting children's overall cognitive development and enhancing their ability to explore new information and adapt to a globalized era (Dewi et al., 2021). This article delves into the cognitive factors underlying code-switching among bilingual students at Global Nusantara National Plus Primary School Sampit, Indonesia, during classroom learning activities. This specific institution was chosen due to its unique bilingual system, combining both the national Indonesian curriculum and an international curriculum from Singapore, with a strong emphasis on English alongside Indonesian. Research indicates that bilingual children's proficiency in a second language (L2) is significantly influenced by the development of their first language (L1). Code-switching often serves as a cognitive adaptation for these students when they encounter difficulties in L2, allowing them to leverage their L1 linguistic and conceptual foundations to maintain communication continuity and express complex ideas. Cognitive factors such as the inability to recall a specific word or the greater availability of a term in another language often prompt code-switching (Gratien et al., 2023). Unlike conscious code-switching in adults, this process in children is often spontaneous and unconscious, representing a natural aspect of their bilingual language development and reflecting their ongoing language acquisition journey. Code-switching is broadly defined as the

speaker-motivated use of two or more linguistic varieties, including languages, dialects, or styles, within the same conversation (Myers-Scotton, 1989; Setiawan, 2023). It is recognized as a natural phenomenon where interlocutors transition their discourse between two or more languages, often occurring within the same conversational turns or even within the same phrases (Yow et al., 2016). According to some linguistic perspectives, code-switching occurs when a word or phrase from one language is substituted for a word or phrase in a second language (Heredia & Altarriba, 2001; Poplack, 2013).

Linguists categorize code-switching into three primary types. First, Tag-switching (Extra-sentential) this type involves the insertion of short expressions or tags from one language into an utterance that is otherwise entirely in another language. Second, intra-sentential switching: this refers to the shifting of languages within a single sentence, occurring at the level of morpheme, word, phrase, or clause. Both languages may be utilized within the same turn. Last, Inter-sentential switching: This type of code-switching occurs at sentential boundaries, where one clause or sentence is in one language and the subsequent clause or sentence is in the other. The use of code-switching is also influenced by an individual's bilingual skills. Fluent bilinguals tend to switch at various syntactic boundaries within a sentence, whereas non-fluent bilinguals often favor switching between sentences, allowing them to participate in code-switching without the risk of violating grammatical rules in either language (Muthusamy et al., 2020). The previous study by Suhardianto and Afriana (2022) highlights a significant research gap by shifting focus on bilingual primary school students in Indonesia moved beyond mere linguistic classification to investigate the underlying cognitive motivations for code-switching, identifying factors like Helping Understanding and Speaking Easier.

This presents a clear gap that our research aims to address. The foundational literature, as cited above, describes the linguistic forms of code-switching, and the work by Muthusamy et al. (2020) links these forms to general bilingual fluency. However, it does not delve into the specific cognitive mechanisms that drive these choices in real-time. The Suhardianto and Afriana (2022) study initiated this inquiry but was limited by its small case-study design. Therefore, the research gap lies in moving from a structural description of code-switching to a functional and cognitive one. This research will build upon the foundational classifications (Poplack, 2013; Myers-Scotton, 1989) but will systematically investigate the cognitive factors that Effendie et al. (2024) identified, examining how variables like working memory and cognitive flexibility influence not just whether a student code-switches, but for what specific cognitive and communicative purpose within an authentic educational context. The provided literature establishes a robust understanding of code-switching in bilingual children, largely underpinned by Cummins's (1978) Developmental Interdependence Hypothesis. This existing body of work thoroughly explains that L2 acquisition is not a blank slate, but rather a process that leverages a child's L1 linguistic and conceptual foundation, facilitating the transfer of thinking strategies and leading to L1 use as a cognitive adaptation in L2 (Kheder & Kaan, 2021). It further highlights that code-switching serves as a crucial mechanism for maintaining communication continuity and demonstrates a grasp of broader concepts beyond isolated words (Liu et al., 2024). Additionally, the literature extensively catalogues the predominant reasons and functions of code-switching, including self-expression, lexical gaps, environmental influence, and various communicative purposes like word finding, clarification, and emphasis (Abubakar, 2022; Andriani, 2023; Cedden et al., 2024; Gratien et al., 2023; Heredia & Altarriba, 2001; Setiawan, 2023). However, while these studies offer a comprehensive "why" and "how" of code-switching, a notable gap remains in understanding its specific developmental trajectory across different age groups and proficiency levels within childhood. The existing research broadly refers to "bilingual children" without deeply exploring how the motivations, patterns, and cognitive underpinnings of code-switching might evolve as children mature and their L1 and L2 proficiencies shift. This gap suggests a need for research that

examines the dynamic nature of code-switching as children progress through various stages of bilingual development, offering a more nuanced understanding of this pervasive linguistic phenomenon. This research examine the cognitive factors which influenced code-switching phenomenon among bilingual primary students at Global Nusantara National Plus Primary School Sampit. Thus, this study aims to explore these cognitive underpinnings within the specific context of Global Nusantara National Plus Primary School, providing insights into how bilingual students strategically utilize their linguistic repertoires to facilitate learning and communication.

METHOD

This qualitative case study (Creswell & Creswell, 2018), conducted at Global Nusantara National Plus Primary School Sampit, focused on analyzing code-switching among its bilingual primary students. Five bilingual students (A.S, I.M, J.L, L.A, W.K) were specifically chosen due to their strong English and Indonesian skills, supportive bilingual surroundings, and participation in English courses. The homeroom teacher and Science teacher were also interviewed for their insights into student language use and English-medium instruction. Data was gathered through non-participatory observations of Science classes to record instances of code-switching, and semi-structured interviews with the teachers, which were audio/video recorded and transcribed. The data analysis followed the Miles et. al. (2014) model, involving data condensation (manual coding of code-switching types and cognitive factors, aided by Voyant Tools), data display (descriptive formats and tables), and conclusion drawing verified through comparing observation and interview data. The study's credibility was further strengthened by ensuring criteria of credibility, transferability, dependability, and confirmability.

RESULTS AND DISCUSSION

Results

To explore the cognitive factors influencing the use of code-switching by bilingual students at Global Nusantara National Plus Primary School Sampit, close attention was paid to their language choices during classroom observations. The analysis revealed varying degrees of influence from several cognitive factors.

During the homeroom time observation, the following cognitive factors were identified as influencing code-switching:

Table 1. The Cognitive Factors of Code-Switching During Homeroom Time

No	Subject Research	Utterances	Interlocutors	Expressions	Cognitive Factor	Type
1	J.L	“Yeay!. <i>Pesta siapa, ma’am?</i> ”	Teacher	Was spoken in a loud and clear voice when responding to the teacher	CF 3	Tag-switching
2	I.M	“Ma’am, reviewing the lessons means we should <i>kasih tahu apa</i> ”	Teacher	Repeated the instruction given by homeroom teacher to	CF 4	Intra-sentential code-switching

		<i>yang dipelajari like on Friday?"</i>		confirm understanding		
3	L.A	“What are you doing in the evening? <i>Saat sore kamu ngapain?"</i>	Non-bilingual friend	Repeated speech in two languages so that the interlocutor could understand	CF 4	Inter-sentential code-switching
4	L.A	“My mom scolded me for playing games too long on the last holiday. <i>Jadi, aku dimarahin mamaku"</i>	Non-bilingual friend	Repeated speech in two languages so that the interlocutor could understand	CF 4	Inter-sentential code-switching
5	L.A	“So, I save my phone <i>karena mamaku suruh"</i> ,	Non-bilingual friend	Fast language switched without any confusion	CF 3	Intra-sentential code-switching
6	L.A	“ <i>Palingan</i> like twice a week”	Non-bilingual friend	Seemed to think before speaking	CF 1	Intra-sentential code-switching
7	A.S	“I went to your house. <i>Waktu itu kamu gak dirumah"</i>	Bilingual friend	Fast language switched without any confusion	CF 3	Inter-sentential code-switching
8	W.K	“It was hard, <i>kan. I told you"</i>	Bilingual friend	Used as emphasis	CF 4	Tag-switching
9	W.K	“ <i>Bener!</i> I don't think that will be like that!”	Bilingual friend	Was done spontaneously to easier self-expression Switching was done to ask for clarification	CF 3	Tag-switching
10	I.M	“I'm sorry. <i>Aku gak bisa dengar suara kamu"</i>	Non-bilingual friend	when interlocutor was not speaking clearly and showing difficulties in speaking English	CF 4	Inter-sentential code-switching
11	I.M	“Did you go somewhere?”	Non-bilingual friend	Repetition in two languages	CF 4	Inter-sentential

		<i>Kamu kemana pas libur?"</i>		was done to help the interlocutor to understand		code-switching
12	I.M	"Oh iya, I helped my mom on holiday"	Non-bilingual friend	The used of tag switching was done after thinking and remembering	CF 3	Tag-switching
13	I.M	"I don't understand. Jadi, aku tanya mamaku"	Non-bilingual friend	Fast language switched without any confusion	CF 3	Inter-sentential code-switching
14	I.M	"It's like...mmm aku kerjain dulu beberapa habis itu nanti lagi"	Non-bilingual friend	The switching was done because of confusion in finding the right words/arranging the right words to convey the message	CF 1	Intra-sentential code-switching
15	I.M	"Okay, sampai jumpa"	Non-bilingual friend	Easier self-expression	CF 3	Tag-switching
16	J.L	"Hello, what did you do during holiday? Apa kamu liburan?"	Non-bilingual friend	Bilingual students clarified with their interlocutors to clarify the meaning of the previous question	CF 4	Inter-sentential code-switching
17	J.L	"It's so fun, tau!"	Non-bilingual friend	The bilingual emphasized about what she talked about	CF 4	Tag-switching
18	J.L	"I went there with my friends. Kamu gimana?"	Non-bilingual friend	Fast language switched without any confusion	CF 3	Inter-sentential code-switching
19	J.L	"So, you just like bring the book there and study together? Jadi kerja kelompok gitu ya"	Non-bilingual friend	Repeated speech in two languages so that the interlocutor could understand	CF 4	Inter-sentential code-switching

20	J.L	“It’s okay. <i>Nanti aku bawa yang baru</i> ”	Non-bilingual friend	Emphasize that this was not a problem	CF 4	Inter-sentential code-switching
21	J.L	“I don’t know. <i>Aku gak tahu</i> ”	Non-bilingual friend	Repeated speech in two languages so that the interlocutor could understand	CF 4	Inter-sentential code-switching
22	J.L	“It’s kinda... <i>aneh tapi nyata</i> ”	Non-bilingual friend	Had difficulty in finding the meaning in English	CF 1	Intra-sentential code-switching

During the homeroom time observation, cognitive factors CF 1 (Language difficulties), CF 3 (Speaking easier), and CF 4 (Helping Understanding) were observed to influence the use of code-switching.¹ Cognitive factor CF 2 (Self-editing) was not identified in this session.

During the science class observation, all four cognitive factors were identified as influencing code-switching:

Table 2. The Cognitive Factors of Code-Switching During Science Class

No	Subject Research	Utterances	Interlocutors	Expression	Cognitive Factors	Type
1.	J.L	“The light helps us to see the objects around us. <i>Jadi, cahaya itu membantu kita melihat objek disekitar kita</i> ”	Teacher	Fast language switched without any confusion	CF 3	Inter-sentential code-switching
2.	I.M	“ <i>Dengan cahaya</i> ...we can see the objects around us”	Teacher	Seemed to think and pause then continued in English more fluently	CF 1	Intra-sentential code-switching
3.	I.M	“We see with our eyes to see em... what is <i>pemandangan Bahasa Inggrisnya, ma’am?</i> ”	Teacher	Had difficulty in finding the meaning in English	CF 1	Intra-sentential code-switching
4.	L.A	“So, we need lights to see things because...some colors like black we cannot see the... <i>seperti... seperti warna hitam putih kita gak bisa lihat karena sulit</i> ”	Teacher	Had difficulty in English and there was a pause then continued with Indonesian more fluently	CF 1	Intra-sentential code-switching

5.	W.K	<p><i>dibedakan jadi kalau tanpa sinar matahari kita gak bisa lihat apapun atau membedakan warna</i></p> <p>“Light can make we see because sometimes we cannot see during the dark probably you can use a lamp or <i>aaa...sesuatu yang bisa menghasilkan lampu</i>”</p>	Teacher	<p>There was a pause then continued with Indonesian more fluently</p>	CF 1	Intra-sentential code-switching
6.	W.K	<p>“Oh, yes the lights I mean. <i>Lampu lagi hehehe</i>”</p> <p>So, in the dark we cannot see and</p>	Teacher	<p>Correcting errors in previous speech</p>	CF 2	Inter-sentential code-switching
7.	A.S	<p>then if there is no light in the world so <i>kita gak bisa lihat anything</i>”</p> <p>“We cannot see anything because it’s dark. <i>Gelap banget, ma’am.</i>”</p>	Teacher	<p>Fast language switched without any confusion</p>	CF 3	Intra-sentential code-switching
8.	J.L	<p>“Yeah, but not clear if blackout. <i>Namanya juga mati lampu.</i>”</p> <p>“<i>Ada beberapa sumber cahaya.</i></p>	Teacher	<p>Did repetition and emphasized</p>	CF 4	Inter-sentential code-switching
9.	W.K	<p>The sources of lights are like candles and lamps”</p> <p>“<i>Bulan dan matahari.</i> The moon and the sun, ma’am”</p>	Bilingual friend	<p>Did repetition and emphasized</p>	CF 4	Inter-sentential code-switching
10.	L.A	<p>“Because moon gains the light from the sun. <i>Bulan bercahaya karena matahari</i>”</p>	Teacher	<p>Fast language switched without any confusion</p>	CF 3	Inter-sentential code-switching
11.	A.S	<p>“<i>Oh iya,</i> the position of the moon is here and the sun is here”</p>	Teacher	<p>Did repetition</p>	CF 4	Inter-sentential code-switching
12.	W.K		Teacher	<p>Emphasized the message conveyed</p>	CF 4	Inter-sentential code-switching
13.	J.L		Teacher	<p>The used of tag switching was done after thinking and remembering</p>	CF 3	Tag-switching

14.	L.A	“Right! <i>Jadi gak bisa melihat</i> ”	Bilingual friend	Was done spontaneously to easier self-expression	CF 4	Tag-switching
15.	W.K	“ <i>Sinar matahari akan ganggu emm...our vision</i> ”	Bilingual friend	Experienced difficulty in finding the right word in Indonesian	CF 1	Intra-sentential code-switching
16.	L.A	“We can be blind, <i>seperti buta</i> ”	Bilingual friend	Did repetition and emphasized	CF 4	Intra-sentential code-switching
17.	J.L	“But my mom said it’s green because of the smoke. <i>Jadi hijau dia berubahnya</i> ”	Teacher	Did repetition and emphasized	CF 4	Inter-sentential code-switching
18.	L.A	“Just like this, <i>seperti ini</i> ”	Non-bilingual friend	Did repetition and emphasized	CF 4	Intra-sentential code-switching
19.	L.A	“So, you get the answer from <i>apa namanya...majalah tabloid?</i> ”	Non-bilingual friend	The switching was done because of confusion in finding the right words	CF 1	Intra-sentential code-switching
20.	L.A	“Oh, let me ask ma’am A.D. <i>Karena aku juga gak paham hehe</i> ”	Non-bilingual friend	Switching was done quickly and fluently	CF 3	Inter-sentential code-switching
21.	L.A	“Wait a minute, <i>kayanya aku yang salah</i> ”	Non-bilingual friend	Was done spontaneously and quickly	CF 3	Intra-sentential code-switching
22.	A.S	“ <i>Jadi, kalau sebuah pipa itu..em..lurus so cahaya</i> can go straight to the pipe very easily”	Teacher	Seemed to think and there was a pause	CF 1	Intra-sentential code-switching
23.	A.S	“ <i>Cahaya hanya bisa bergerak... em... it can move straight</i> ”	Teacher	Seemed to think and there was a pause	CF 1	Intra-sentential code-switching
24.	I.M	“The light from straight pipe <i>itu kan bisa langsung lurus karena mencapai mata kita</i> ”	Teacher	Was done spontaneously when explaining to the teacher.	CF 3	Intra-sentential code-switching

In the analysis to explore the factors why bilingual students at Global Nusantara National Plus Primary School Sampit use code-switching during science class time, researcher found that all

cognitive factors influence the used. In the table 4.1.2.2, the cognitive factors that influenced the use of code-switching indicated by codes CF 1, CF 2, CF 3, and CF 4.

The following are the percentages of cognitive factors that influenced the use of code-switching by bilingual students from the results of classroom observations:

Table 3. The Cognitive Factors of Code-Switching During Science Class

Cognitive Factors	During Homeroom time	During Science Class	Total	Percentages
CF 1	3	8	11	23,91%
CF 2	0	1	1	2,17%
CF 3	8	7	15	32,60%
CF 4	11	8	19	41,30%

From the table above it can be seen that CF 1 has a percentage of 23,91%, CF 2 has a percentage of 2,17%, CF 3 has a percentage of 32,60%, and CF 4 has a percentage of 41,30%.

The most prevalent cognitive factor influencing bilingual students' code-switching was **Helping Understanding (CF 4)**, accounting for 41.30% of instances. This manifested through strategies such as repetition, emphasis, clarification, and confirmation, all aimed at ensuring the interlocutor's comprehension. The second most frequent factor was **Speaking Easier (CF 3)**, representing 32.60% of instances. This category encompasses easier self-expression and fluency in both languages. **Language Difficulties (CF 1)** was the third most common cognitive factor, accounting for 23.91% of instances. This factor includes concealing second language deficiency, experiencing loss of words, difficulty in word finding, and a general lack of understanding. The least prevalent cognitive factor was **Self-editing (CF 2)**, with only 2.17% of instances. This occurred when students corrected their own sentences or speech, or when they perceived an inaccuracy in their communication.

Discussion

The analysis of cognitive factors influencing code-switching revealed that all four predefined factors were present, though with varying degrees of prevalence. The most dominant factor was **Helping Understanding (CF 4)**, accounting for 41.30% of instances. Students used code-switching for repetition, emphasis, clarification, and confirmation, demonstrating a deliberate effort to ensure their message was clearly conveyed. This aligns with Johansson's (2013, in Hanafiah et al., 2021) view that bilinguals use their languages as resources to deliver meaning, and with Communication Accommodation Theory (Giles & Ogay, 2007 in Maranan et al., 2025), which posits that individuals adjust their language to improve comprehension. The homeroom teacher's observation that students adjust their language when peers are lacking in English further supports this facilitative role of code-switching.

The second most frequent factor was **Speaking Easier (CF 3)**, at 32.60%, reflecting students' ability to switch languages quickly and naturally for easier self-expression and demonstrating fluency. This is consistent with Cummins's (1978) Developmental Interdependence Hypothesis, which suggests that bilingual children with a strong L1 foundation find it easier to transfer thinking strategies to L2, often resulting in spontaneous and unintentional code-switching. The homeroom teacher noted that code-switching is largely 'naturally because it's their habit to use both languages.'

Language Difficulties (CF 1) was the third most common factor, at 23.91%. This included instances of concealing second language deficiency, word loss, word finding, and general lack of understanding. Students were observed pausing or thinking when struggling to find the right word, leading them to use terms from the other language. This supports Cummins's (1978)

theory that children use L1 structures as a cognitive adaptation when facing L2 difficulties. The science teacher provided an example of students asking for English equivalents of Indonesian words, indicating lexical gaps.

The least prevalent factor was **Self-editing (CF 2)**, observed in only 2.17% of instances, occurring when students corrected their speech or perceived inaccuracies. While Milroy and Muysken (1995) identify self-editing as a function of code-switching, its low frequency here may suggest that for these young bilinguals, code-switching is more often a spontaneous response to immediate communicative needs rather than a deliberate correction mechanism, aligning with the idea that code-switching in children is often unconscious and part of their acquisition process.

The combined dominance of Helping Understanding and Speaking Easier (over 70%) suggests that for these primary bilingual students, code-switching is primarily a productive linguistic strategy for effective communication and natural expression, rather than merely a compensatory mechanism for linguistic deficits. This implies a relatively functional stage of bilingual development where students leverage their full linguistic repertoire.

Comparing these cognitive factors with previous research, several overlaps emerge. Suhardianto and Afriana (2022) identified factors such as easy to convey a message, habitual experience, and repetition to clarify a message, which align closely with Speaking Easier and Helping Understanding in the current study. Muthusamy et al. (2020) found incompetence in the second language, ease of speaking in the first language, and avoiding misunderstanding as factors, which resonate with Language Difficulties and Helping Understanding. Villarín and Emperador (2023) highlighted loss of words and comfort as dominant factors, consistent with Language Difficulties and Speaking Easier. These comparisons indicate a shared understanding of the core cognitive drivers for code-switching across different contexts and age groups, though their relative prevalence may vary.

CONCLUSION

The study on code-switching among bilingual students at Global Nusantara National Plus Primary School Sampit highlights its significant role as a sophisticated cognitive and pedagogical mechanism, far beyond a simple communication tool. Code-switching actively engages and enhances various mental resources, including attention, working memory, and cognitive control, thereby strengthening executive functions such as cognitive flexibility, problem-solving, and metalinguistic awareness. This practice serves as a "cognitive workout," aligning with the school's emphasis on critical thinking and creativity, and demonstrating how code-switching can be synergistically amplified within a supportive bilingual educational framework to foster advanced cognitive development. Despite these clear benefits, the study acknowledges limitations inherent in bilingualism research, including wide variability in participant characteristics, the lack of a universal definition of "bilingualism," and inconsistent findings in the broader "bilingual advantage" literature. Furthermore, societal stigmatization of code-switching, though likely mitigated in a supportive school environment, could still subtly influence student engagement. Future research should address these limitations by establishing standardized guidelines for participant reporting, employing multiple assessment tasks for executive functions, conducting longitudinal studies, and exploring moderating factors like working memory and socio-cultural contexts in greater depth to move towards a "context-dependent bilingual optimization" paradigm. The findings carry significant implications for educators, policymakers, and parents, advocating for a paradigm shift from viewing code-switching as a deficit to recognizing it as a valuable cognitive strength. Educators at Global Nusantara National Plus Primary School Sampit should embrace code-switching as an integral pedagogical strategy, utilizing "teachable moments," setting clear language goals, and

implementing translanguaging protocols to support biliteracy, cognitive development, and positive student identity. Policymakers should formally integrate code-switching into teaching policies and invest in professional development for teachers, while school administrators should foster supportive bilingual environments. Parents should be educated about the cognitive benefits to dispel misconceptions and encourage healthy code-switching at home. Ultimately, by validating and strategically integrating code-switching, educational institutions can enhance students' cognitive functions and contribute profoundly to their development as adaptable, empathetic "global citizens" capable of navigating diverse social and cultural dynamics.

ACKNOWLEDGMENTS

I would like to express my gratitude to Allah SWT for his blessings and guidance. Then, I would like to extend my sincere thanks to my advisors from University of Palangkaraya, Dr. Bahing, M.Pd., Dr. Indra Perdana, M.Pd., Dr. Natalina Asi, M.A., Dr. Misrita, S.S., M.Hum., and Dr. Ristati. S.Pd., M.Hum. for the direction and guidance given during the process. I realize this article still far from perfect. I truly welcome any constructive feedback and suggestion.

REFERENCES

- Abubakar, A. S. (2022). Code Switching and Code-Mixing (CS-CM) in Multilingual Teacher-Talk: Pedagogic Functions and Educational Implications.
- Andriani, D. I. (2023). Code-Switching And Code-Mixing Analysis In Indonesian Songs Lyrics By Unlty. *Jurnal Basis*, 10(1), 67–78. <https://doi.org/10.33884/basisupb.v10i1.6882>
- Cedden, G., Meyer, P., Özkara, B., & von Stutterheim, C. (2024). The “code-switching issue”: transition from (socio) linguistic to cognitive research. *Bilingualism: Language and Cognition*, 1-14.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Cummins, J. (1978). Bilingualism and the Development of Metalinguistic Awareness. *Journal of Cross-Cultural Psychology*, 9(2), 131–149. <https://doi.org/10.1177/002202217892001>
- Dewi, G. P. R., Nitiasih, P. K., Artini, L. P., Suwastini, N. K. A., & Haryanti, N. D. (2021). Investigating the advantages of bilingualism: Multidimensional research findings. *ETERNAL (English, Teaching, Learning, and Research Journal)*, 7(2), 423-441.
- Gratien, T., Prosper, M., Bikorimana, D., & Hitayezu, E. (2023). Code-Switching And Code-Mixing In The English As A Foreign Language Teaching And Learning Process (A Sociolinguistic Analysis). *European Journal of Social Sciences Studies*, 9(3).
- Hanafiah, R., Mono, U., & Yusuf, M. (2021). Code-Switching in Lecturer-Students' Interaction in Thesis Examination: A Case Study in Indonesia. *International Journal of Instruction*, 14(1), 445–458. <https://doi.org/10.29333/iji.2021.14126a>
- Heredia, R. R., & Altarriba, J. (2001). Bilingual language mixing: Why do bilinguals code-switch?. *Current directions in psychological science*, 10(5), 164-168.
- Indriani, R. Y., Silvhiany, S., & Mirizon, S. (2021). Raising Bilingual Children: An Exploration of Language Ideology and its Practices in an Indonesian Family. *Indonesian Language Education and Literature*, 7(1), 27. <https://doi.org/10.24235/ileal.v7i1.8733>
- Kheder, S., & Kaan, E. (2021). Cognitive control in bilinguals: Proficiency and code-switching both matter. *Cognition*, 209, 104575.
- Lin, T., & Lei, J. (2021). English-medium instruction and content learning in higher education: Effects of medium of instruction, English proficiency, and academic ability. *Sage Open*, 11(4), 21582440211061533.

- Liu, H., Liu, Z., Yuan, M., & Chen, T. (2024). The effect of cognitive load on code-switching. *International Journal of Bilingualism*, 28(3), 513–530. <https://doi.org/10.1177/13670069231170142>
- Maranan, M., Batalla, R., & Santos, A. (2025). Exploring the Role of Code-Switching in Multilingual Classroom Dynamics: A Comparative Study of Attitudes and Practices among University Students in the Philippines. *JPAIR Multidisciplinary Research*, 59(1), 22-40.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook. (No Title)*.
- Milroy, L., & Muysken, P. (Eds.). (1995). *One speaker, two languages: Cross-disciplinary perspectives on code-switching*. Cambridge University Press.
- Muthusamy, P., Muniandy, R., Kandasamy, Sillalee. S., Hussin, O. H., Subramaniam, M., & Farashaiyan, A. (2020). Factors of Code-Switching among Bilingual International Students in Malaysia. *International Journal of Higher Education*, 9(4), 332. <https://doi.org/10.5430/ijhe.v9n4p332>
- Myers-Scotton, C. (1989). Codeswitching with English: types of switching, types of communities. *World Englishes*, 8(3), 333-346.
- Poplack, S. (2013). “Sometimes I’ll start a sentence in Spanish Y TERMINO EN ESPAÑOL”: Toward a typology of code-switching. *Linguistics*, 51(s1), 11-14.
- Setiawan, B. (2023). Code-Mixing vs Code-Switching: a Study of Grammatical Perspective Through Code-Switching Varieties. *KnE Social Sciences*, 47-57.
- Suhardianto, S., & Afriana, A. (2022). The types and factors of code switching in “English Time” course. *IdeBahasa*, 4(1), 53-62.
- Sukmawati, I. D., & Pujiani, T. (2024). English as Medium of Instruction (EMI) at Primary Schools in Indonesia: Challenges and Opportunities. *The Journal of English Teaching For Young And Adult Learners*, 3(1), 14–20. <https://doi.org/10.21137/jeeyal.2024.3.1.3>
- Villarin, S. J. B., & A. Emperador, E. (2023). Factors, Forms, and Functions of Code Switching on English Achievement among Grade 11 Students. *International Journal of Science and Management Studies (IJSMS)*, 99–109. <https://doi.org/10.51386/25815946/ijmsm-v6i2p114>