



The Influence of the Use of Code-Mixing in Teaching by English Teachers (Perspectives from EFL Teenage Students)

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Abstract

Teaching English to EFL students is a challenge for English teachers in Indonesia, where English is viewed as a foreign language. Teachers in Indonesia often use code-mixing to facilitate better understanding of the lessons among students and to help them follow the material easily. However, the use of code-mixing itself must be carefully considered to ensure students can also practice their English specifically. Therefore, the objective of this study is to ascertain whether English teachers' classroom instructions are affected by the use of code-mixing, and if so, whether code-mixing can positively affect English learning in schools. For instance, code-mixing helps them enhance their understanding of the material. This quantitative study collected data through an online questionnaire and was conducted on EFL teenage students in Indonesia. In this study, data were collected from 165 EFL teenage students in Indonesia through a closed-ended Likert-scale questionnaire. The data were then analyzed using Regression Analysis, which showed a significant impact ($Sig. = 0.000$, $p < 0.05$). The findings indicate that code-mixing impacted students' perception of English language learning with their teachers. It helped them understand the material, develop language skills, and make them feel more confident.

Keywords: Code-Mixing; Language Usage; Teaching English; EFL Students

Introduction

The ability to use English is often used as a qualification in a career by most national and international companies. Employees who can communicate effectively in English with clients and partners from various countries can perform their jobs more efficiently. Therefore, mastering English is not only beneficial for the company as a whole, but also for the employees directly involved, who will reap

the benefits. These days, many people have mastered more than one language. People who can communicate in two languages are known as bilinguals (Pharamita et al., 2021).

In Indonesia, English is considered as a foreign language (Alrajafi, 2021). In the past, before they knew English, Indonesian people commonly blended Indonesian and regional languages into their speech (Herman et al., 2022). Salamat et al. (2022) argue that during conversations with others, individuals may switch or blend words from different languages. Language combination in conversation is called code-mixing. As stated by Pratapa & Choudhury (2021), code-mixing is when people blend words or phrases from multiple languages within a single conversation.

In the view of Muysken (2000), code-mixing is the occurrence of both lexical and grammatical components from two languages within a single utterance. In explaining code-mixing, Muysken (2000) also identifies three primary forms. The first is *insertion*, which occurs as words or phrases from a different language are incorporated into the sentence structure of another. Second is *alternation*, where speakers switch between the grammatical systems of two different languages within a conversation. The third, called *congruent lexicalization*, occurs when both languages contribute vocabulary to a sentence that shares a common grammatical framework.

The variety of code-mixing phenomena illustrates that bilingual speakers naturally blend two languages based on situational context, needs, and proficiency levels. Bilingual individuals possess the ability to speak and understand multiple language with ease. Various factors contribute to why bilinguals engage in code-mixing, including discussing a focused topic, citing others, highlighting something, interjecting, repeating information for clarification, and aiming to enhance the interlocutor's understanding (Hoffman, as quoted by Adriana & Ratmo, 2017).

English is taught from middle school to university. As an EFL country, English teaching and learning in Indonesia have been challenging. English teachers in Indonesia employ various learning strategies to deliver effective and optimal lessons that yield excellent English language outcomes. The most important responsibility of teachers is to encourage students to engage in learning actively (Boy Jon et al., 2021). In an English language learning classroom, the teacher could possibly use code-mixing when explaining materials, whether using media or not. Media are defined as tools that facilitate the transfer of messages from the sender to the intended recipient (Aditya & Ekawati, 2024).

According to Pharamita et al. (2021), this challenge stems from several causes, including students' limited English vocabulary and the difficulty they face when teachers explain the material solely in English, which can lead to misunderstandings. Considering students' English proficiency, examining the impact of code-mixing on learning is highly relevant in Indonesia. Teachers can utilize English exclusively when they believe that all students are on the same level

of proficiency, enabling them to fully understand the material being explained in English (Abdul et al., 2024).

If not, the teacher is expected to use a bilingual language, incorporating both Indonesian and English. Fadliyah et al. (2023) claim that code-mixing can facilitate the understanding of the points discussed by both presenters and audiences during classroom presentations. In this context, using code-mixing becomes a communicative strategy for teachers and students. It provides them with an opportunity to practice and improve their English through the use of both languages. This perspective aligns with the view that first and second languages interact within a unified cognitive system, a concept emphasized by Guiora (1982).

According to (Guiora, 1982), the process of acquiring a first language (L1) and a second language (L2) should not be viewed as two separate systems, but rather as “elements that are interconnected within a single cognitive-affective framework.” In this view, L1 and L2 can influence each other, both mentally and emotionally, so that the simultaneous use of both languages can cause interference or positive transfer. This framework is relevant for better understanding the phenomenon of code-mixing in language learning, where students combine L1 and L2 in communication or learning processes.

Using Guiora's cognitive-affective approach, this study explores how code-mixing affects not only linguistic aspects, but also students' attitudes, comfort, and perceptions of language learning. Therefore, this theory provides a strong theoretical basis for analyzing students' perceptions of the use of code-mixing as a teaching tactic in the EFL context. Before figuring out the objectives of this study, the author identified a range of previous studies that served as references and comparisons for the current study. First, as observed by Khaliq et al. (2022), the investigation revealed the effectiveness of mixing code in teaching English at the secondary stage.

This study uses a questionnaire to conduct quantitative research with a sample of female teachers and students. Next, a study by Ezeh et al. (2022) confirmed the effectiveness of code-switching and code-mixing in the context of teaching and learning English as a second language, which is closely related to the present research. This study also uses a questionnaire to conduct quantitative research with a sample of both teachers and students. The last one is an investigation by Raza et al. (2022), which claims that code-mixing aids L2 learners in enhancing their speaking skills, communication, and comprehension in multilingual settings.

This study builds on these insights by further analyzing students' perspectives on code-mixing in EFL classrooms and its role in enhancing language acquisition. This study employed an anonymous digital survey to collect data from respondents. Based on the numerous previous studies described, researchers identified a research gap relevant to this study. This gap is mainly highlighted in the characteristics of the samples used. Most previous studies have taken samples from

teachers or combined teachers and students, but only a few have specifically highlighted students' perceptions. Additionally, several studies used a relatively small number of participants.

Therefore, this study focuses specifically on adolescent students as single respondents, with a larger and more specific sample size, to obtain more targeted data in understanding the application of code-mixing in English learning. This research presents a new perspective by focusing on examining adolescent students' perceptions of code-mixing by English teachers, utilizing a quantitative approach and a large sample of respondents. This study was also conducted in a local context, specifically in schools within the *Jabodetabek* area. Thus, this study focuses on investigating whether there is an impact of code-mixing on teaching by English teachers, with a particular focus on researching EFL teenage students.

Therefore, the research question that will be explored throughout the results and discussion part is:

1. Does the use of code-mixing influence English teaching?
2. If yes, does the use of code-mixing and English teaching have a positive influence?

Method

The research employed a quantitative approach, in which participants' data were obtained via a questionnaire. Quantitative research is used to determine whether there is any impact or effect between two variables. The first variable is code-mixing, and the other variable is teaching. In the view of Cohen et al. (2018), in research, quantitative data analysis is a strong method used. This approach is typically applied in a large research project and is also effective when used in smaller studies, such as case studies, action research, correlational research, and experiments. The data were collected from students' perceptions of the code-mixing employed by their teachers during the teaching process.

The data were derived from various secondary school students in several areas determined by the author, who were studying English at school, in the Jabodetabek Area (*Jakarta, Bogor, Depok, Tangerang, and Bekasi*), Indonesia. There are at least 11 schools in Jabodetabek included in this study. The author chose these schools based on accessibility or the author's connections to various schools, both onsite and offsite. The sample selected for this research included teenage students at the secondary level aged 15 to 18 years old. 15-18 years of age includes the period of middle teenage years (Monks et al., 2019), and because teenagers use code-mixing to express their social and cultural identity in an international society (Purba et al., 2024).

A purposive sampling technique was adopted to guide the selection of participants who had experienced being taught by English teachers using code-mixing within the teaching and learning activities. Purposive sampling is selected for specific purposes so that researchers can obtain data from groups that are

considered most capable of providing information relevant to the focus of the study (Cohen et al., 2018). A total of 165 participants were involved in this study. Table 1 presents a demographic overview of the participants, including gender, age, and grade level.

Table 1. Demographics

Categories		Total of Participants
Gender	Male	77
	Female	88
Age	15	11
	16-17	135
	18	19
Grade Level	9	3
	10	71
	11	76
	12	15

The researchers collected the data by distributing online questionnaires using Google Forms to students in schools in the Jabodetabek area by distributing the link directly to the respondents and indirectly through online platforms, for example, WhatsApp. From whom data could be obtained. The data collection process took place from May 22 to June 25, 2025. Among the 15 items on the questionnaire, 13 were found as valid items used to collect data in this study, including seven items on code mixing overall and six items on code mixing about teaching, and the reliability was 0.883. The questionnaire was modified from the studies by Khaliq et al. (2022) and Raza et al. (2022), with several modifications.

A closed-ended questionnaire with a four-point Likert Scale (Strongly Agree, Agree, Disagree, and Strongly Disagree) was used as the research instrument, which measured several aspects, including the frequency of code-mixing used by teachers, and all the participants were requested to give their honest answer on that Likert Scale. A four-point Likert scale was chosen to eliminate neutral options, thereby encouraging respondents to express a clearer stance (agree or disagree) and yielding more definitive data. All respondents were briefed on the aims of the research and granted their consent before taking part in this research, including minors. The respondents' responses were kept confidential and used only for academic research purposes.

Respondents were provided with an online questionnaire via Google Forms. The collected data were investigated using IBM SPSS Statistics 25 software to complete several tests, one of which was the regression test, which was used in this study. Regression analysis is a type of mathematical equation that illustrates how independent and dependent variables interact (Kartiningrum et al., 2022). In this

study, researchers use simple linear regression. Simple Linear Regression is a statistical model utilized to analyze the causal relationship between one independent variable and one dependent variable, where this model defines the dependence of the dependent variable on the independent variable (Maulud & Abdulazeez, 2020). A simple linear regression analysis was conducted to assess the influence of code-mixing on the perceptions of English teaching. The results of this analysis were then used as a benchmark to test the research questions. Before regression analysis, assumptions such as normality and linearity were tested.

Validity Test

Before distributing the questionnaire for research, authors first conduct a validity test to ascertain that the questionnaire items used as measurement tools are in accordance with the research objectives or the measurement being conducted. A questionnaire item is considered valid when the r -calculated exceeds the r -table in the analysis.

Table. 2 Validity test

Item	Respondent	r value	table r	Details
Item 1	42	0.438	0.304	Valid
Item 2	42	0.646	0.304	Valid
Item 3	42	0.751	0.304	Valid
Item 4	42	0.807	0.304	Valid
Item 5	42	0.604	0.304	Valid
Item 6	42	0.683	0.304	Valid
Item 7	42	0.755	0.304	Valid
Item 8	42	0.742	0.304	Valid
Item 9	42	0.745	0.304	Valid
Item 10	42	0.599	0.304	Valid
Item 11	42	0.610	0.304	Valid
Item 12	42	0.138	0.304	Not valid
Item 13	42	-0.026	0.304	Not valid
Item 14	42	0.723	0.304	Valid
Item 15	42	0.789	0.304	Valid

As indicated in Table 2, it is evident that two questionnaire items are declared invalid because their r -calculated are smaller than the r -table values, namely item 12 ($0.138 < 0.304$) and item 13 ($-0.026 < 0.304$). Since two questionnaire items are invalid, only 13 items are used for the research. Details of the items are provided in the appendix.

Results

Descriptive Statistics*Table. 3 Descriptive Statistics*
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Code-mixing	165	7	24	12.90	2.919
Teaching	165	6	18	11.72	2.525
Valid N (listwise)	165				

Source: Primary Data, processed in 2025

Table 3 above presents descriptive statistics related to two variables, namely “Teaching” and “Code-mixing”. From the data present, it is apparent that the Code-Mixing variable has a minimum value of 7, a maximum of 24, a mean of 12.90, and a standard deviation of 2.919. Meanwhile, the Teaching variable has a minimum value of 6, a maximum of 18, a mean of 11.72, and a standard deviation of 2.525. Thus, these variables can be further analyzed to understand the influence on each other in a broader context. The relatively high mean values for both variables indicate that the use of code-mixing by English teachers is perceived positively by teenager EFL students. This suggests that code-mixing plays a role in supporting the teaching process, aiding material comprehension, and creating a more effective learning experience from the students' perspective.

Reliability Test

A total number of 165 students participated in this study. To ensure that the instruments used in this study had good internal consistency, a reliability test was conducted before the main data analysis. The research instrument applied was a closed questionnaire consisting of 13 statements. The reliability test was tested using IBM SPSS Statistics 25 with Cronbach's Alpha formula. The results are as follows:

Table 4. Reliability Test

Cronbach's Alpha	N of items
.907	13

Source: Primary Data, processed in 2025

The analysis reveals that the Cronbach's Alpha value is 0.907, indicating a high score of reliability. As stated by (Widodo, 2021), an instrument is considered reliable if the Cronbach's Alpha value is higher than the r table value. In essence, these findings indicate that the variable measuring the use of code-mixing and

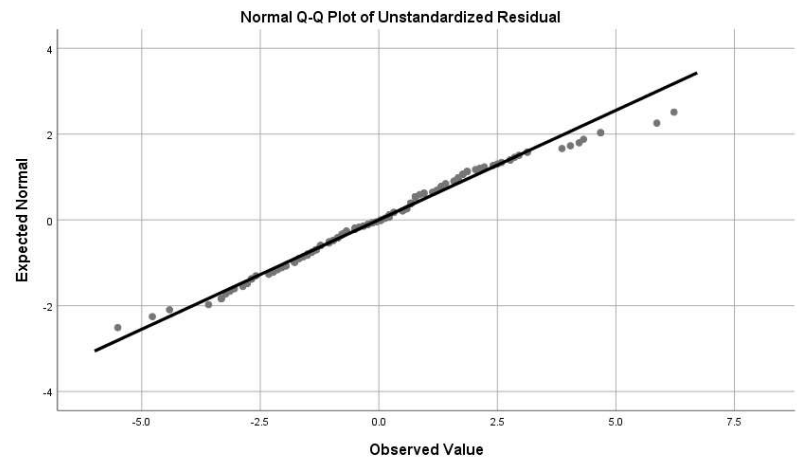
English teaching is consistent, as reflected in the 13 statements.

Normality Test

To ensure that after the final data is collected, the residuals are normally distributed, researchers conduct normality tests to determine whether the residuals in the data follow a normal distribution or not (Widodo, 2021). The normality test is important as one of the assumptions that must be satisfied in a parametric test. The test uses the Kolmogorov-Smirnov (K-S) normality test. The result is displayed in Table 5 below:

Table 5. Normality Test		
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		165
Normal Parameters ^{a,b}	Mean	-0.004112
	Std. Deviation	1.95977566
Most Extreme Differences	Absolute	0.068
	Positive	0.068
	Negative	-0.038
Test Statistic		0.068
Asymp. Sig. (2-tailed)		.063 ^c

Source: Primary Data, processed in 2025



The test was conducted on unstandardized residuals with a sample size (N) of 165 respondents. The mean (average) residual value was -0.0041120, and the standard deviation was 1.95977566. As indicated by the result of the normality test

conducted on the residual data, a significance value of 0.063 was obtained in the *Asymp. Sig* row. This value is higher than the specified significance level ($\alpha = 0.05$), so it can be concluded that the residuals follow a normal distribution. Other steps that can be taken to test normality, namely by looking at the P-Plot graph. Referring to the Normal P-P Plot of Regression graph, the diagonal line on the plot represents the ideal condition of normally distributed data.

The dots on the graph reflect the actual distribution of the data being analyzed. Since most of the points appear to be very close to or right on the diagonal line, this indicates that the data in this analysis tends to follow a normal distribution, and one of the important assumptions in statistical analysis has been fulfilled. It can be inferred that the data used is appropriate for further analysis using parametric statistical methods, including linear regression.

Simple Linear Regression

In this study, hypothesis testing in researchers use simple linear regression to investigate the influence of variables. In simple linear regression, the model incorporates a single explanatory variable (i.e., the independent variable) and a single explained variable (i.e., the dependent variable), the purpose of which is to determine the relationship among variables and answer the research questions from a study. The result are shown in Table 7 below:

Table 6. Regression Test

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1 (Constant)	4.680	0.695		6.731	0.000
Code-mixing	0.545	0.053	0.631	10.372	0.000

Source: Primary Data, processed in 2025

Between the two variables, the analysis refers to the SPSS output in the coefficients table, particularly the significance value (Sig.) listed in the last row. In this study, the Sig. value is 0.000, which means it is smaller than the probability limit of 0.05 ($p < 0.05$) and the t-test result shows that the calculated t-value is 10.372, which is higher than the t-table value of 1.654 at a significance level of $\alpha = 0.05$.

Discussion

Based on this statistical testing criterion, it can be inferred that the use of code-mixing has an effect on teaching by English teachers. In addition, the regression results show that the t value is 10.372 and is positive (no minus sign). This indicates that the use of code-mixing (X) has a positive effect on teaching by English teachers (Y). Thus, the regression equation obtained is: $Y = 4.680 + 0.545X$. From the results obtained, it can be inferred that the implementation of code-mixing in English language teaching has a significant positive effect.

This positive effect can be attributed to the role of code-mixing in bridging EFL students' comprehension gaps by combining English with their first language, enabling clearer explanations of the material and facilitating better understanding. This result aligns with Khaliq et al. (2022) findings that code-mixing is effective if used in teaching English at the secondary stage. They claimed that both teachers and students exhibit a positive audacity in employing the technique of code-mixing, which has significantly enhanced the effectiveness and ease of English language teaching.

Teachers tend to perceive that the use of code-mixing in English teaching positively, as it functions to clarify meaning and provide certainty, code-mixing also facilitates good communication between the person who speaks and the person who listens (Wahyuni & Aeni, 2023). In addition, the majority of teachers expressed a very positive attitude towards the practice, as they considered that students became more relaxed and enjoyed the learning process when teachers used code-switching or code-mixing in a second language (L2) setting (Khan et al., 2022).

The contextualization of teaching English as a foreign language (EFL) in Indonesia is also different from other EFL contexts because English is rarely used in everyday communication, so students are rarely exposed to English beyond classroom activities. As a result, students rely heavily on their mother tongue to understand the learning material. Because of this, code-mixing becomes more relevant. Opposite to what was discovered by Nteziyaremye et al. (2024), the study concludes that code-mixing generally contributes to students' difficulties in acquiring the English language.

Students may struggle to develop their vocabulary, grammar, and understanding of the target language because they are not entirely focused on it. They said that numerous English teachers and school leaders emphasize that code-mixing causes students to feel less confident when speaking English. However, the findings of Iswari et al. (2025) complement that code-mixing in the ESL classroom has two sides: on the one hand, this phenomenon can facilitate students' comprehension of challenging material, enhance their confidence, and support their transition to full English use; on the other hand, however, unregulated overuse can hinder language acquisition due to reliance on the first language.

Therefore, educators need to adjust the application of code-mixing

according to the needs of the class, whether it is necessary to use or not, in order not to hinder the development of their language abilities (Handrayani, 2022). Code-mixing is most beneficial when used strategically, such as to explain difficult material, give instructions, or clarify vocabulary, as it can reduce the cognitive load on teenage EFL learners. However, excessive use or use without a clear pedagogical purpose can reduce exposure to English, for example, when explanations of text or grammar are provided mostly in Indonesian, thereby reducing students' practice in processing English.

This can be understood through the theory by Guiora (1982), the process of acquiring a first language (L1) and a second language (L2) does not occur separately, but rather is interconnected within a single cognitive and affective system. This means that L1 and L2 can influence each other in terms of both thought and feeling. Thus, use of two languages simultaneously can aid learning, but under certain conditions it can also cause interference.

Conclusion

This study showed that the use of code-mixing can have a significant and positive impact on English language teaching, according to teenage EFL students based in the *Jabodetabek* area. Students feel more comfortable and find the material easier to understand. Teachers frequently employ code-mixing to help explain material, introduce new vocabulary, and establish a relaxed classroom atmosphere, both in Indonesian and English. The use of code-mixing has been proven to enhance the learning process by strengthening interaction and understanding between teachers and students.

However, the use of code-mixing can also result in students experiencing a lack of confidence and having limited English practice. Hence, the implementation of code-mixing must be adapted to suit the conditions and needs of each class, determining its necessity. This finding suggests that code-mixing may facilitate comprehension and support a more effective learning experience, particularly in the context of challenging material. It is recommended that educators employ code-mixing judiciously. Nevertheless, educators must acknowledge the potential negative consequences of excessive code-mixing, including reduced exposure to the target language.

Teachers must enhance their knowledge of bilingualism and language teaching strategies to employ code-mixing effectively without adversely affecting students' English proficiency. From the students' side, they must often practice using English so that they can develop their language skills. Moving to another aspect, recognizing the limitations of the research is essential. A limitation of this study is that it tends to use only one research method, namely, quantitative research through surveys, and cannot be further analyzed if the aim is to conduct a more in-depth study on code-mixing.

Implication

This suggestion is addressed to future research to explore a mixed-methods approach to investigate code-mixing perception based on students' language ability level. In addition, it is recommended that future research adopt a longitudinal study to examine the long-term impact of code-mixing, and also recommend conducting comparative studies across regions in Indonesia.

References

- Abdul, R., Fadlilatul, B., & Bali Geroda, G. (2024). *Students' Perception of Code Mixing and Code Switching Used by The Teacher at SMA Negeri 5 Samarinda*. 9(1), 125–132.
- Aditya, B. F., & Ekawati, A. D. (2024). Students' Improving Vocabulary by Discord as an Alternative Asynchronous Learning Media. *JPG: Jurnal Pendidikan Guru Journal*, 5(3), 472–479. <https://ejournal.uika-bogor.ac.id/index.php/jpg/index>
- Adriana, & Ratmo. (2017). Code Mixing and Code Switching in “ Hitam Putih ” Television Program. *Paradigma Lingua*, 2(1), 3–15. <http://openjournal.unpam.ac.id/index.php/Paradigma/article/view/406>
- Alrajafi, G. (2021). The use of English in Indonesia: Status and Influence. *SIGEH ELT: Journal of Literature and Linguistics*, 1(1), 1–10. <https://doi.org/10.36269/sigeh.v1i1.355>
- Boy Jon, R., Embong, R., Purnama, B., & Safar Wadi, A. (2021). The Challenges of English Language Teaching in Indonesia. *International Journal of English and Applied Linguistics (IJEAL)*, 1(3), 158–168. <https://doi.org/10.47709/ijeal.v1i3.1157>
- Cohen, L., Manion, L., & Morisson, K. (2018). Research Methods in Education. In *Taylor and Francis* (Eighth edi). Routledge.
- Ezeh, N. G., Umeh, I. A., & Anyanwu, E. C. (2022). Code Switching and Code Mixing in Teaching and Learning of English as a Second Language: Building on Knowledge. *English Language Teaching*, 15(9), 106. <https://doi.org/10.5539/elt.v15n9p106>
- Fadliyah, R., Dollah, S., & Muhayyang, M. (2023). an Analysis of Code Mixing Used By Efl Students in the Classroom Presentation. *ARRUS Journal of Social Sciences and Humanities*, 3(4), 416–429. <https://doi.org/10.35877/soshum1905>
- Furwana, D., Muin, F. R., Zainuddin, A. A., & Mulyani, A. G. (2024). Unlocking the Potential: Exploring the Impact of Online Assessment in English Language Teaching. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 12(1), 653–662.
- Guiora, A. Z. (1982). *THE DIALECTIC OF LANGUAGE ACQUISITION*. Guiora.
- Handrayani, D. (2022). Is Code-Mixing Needed in English Teaching Process?: EFL Teacher's Experience. *Lingua Didaktika: Jurnal Bahasa Dan Pembelajaran Bahasa*, 16(2), 185. <https://doi.org/10.24036/ld.v16i2.119289>

- Herman, H., Thao, N. Van, Purba, R., & Simanjuntak, N. S. U. (2022). Attracting Viewers through Advertisement by Using Code Mixing: A Sociolinguistics Study. *Anglophile Journal*, 2(2), 80. <https://doi.org/10.51278/anglophile.v2i2.304>
- Husnaini, H. (2022). Development of Self Esteem-Oriented Micro Teaching Materials for IAIN Palopo English Education Students. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 10(1), 538-560.
- Iswari, I. I. R., Aditama, M. G., Najib, R. A., Education, E. L., Muhammdiyah, U., Batang, K., Education, L., & Yogyakarta, U. N. (2025). *CODE MIXING IN ESL CLASSROOM : BARRIER OR BRIDGE TO LANGUAGE LEARNING ?* 03(01), 69–74.
- Kartiningrum, E. D., Basuki, H., Bambang, N., Otok, W., Nurul, E., & Yuswatiningsih, K. E. (2022). *Aplikasi Regresi Dan Korelasi*.
- Khaliq, A. A., Farukh, A., & Pervaiz, B. (2022). *PRACTICING CODE MIXING IN TEACHING ENGLISH IN HIGHER SECONDARY SCHOOLS*. 8(June), 1–11.
- Khan, F., Hussain, A., Qayyum, N., & Ahsan, D. M. (2022). Teachers' Perceptions regarding Code-Switching and Code-Mixing as Scaffoldings in Teaching L2 Speaking Skills at Graduation Level. *International Research Journal of Management and Social Sciences*, 3(2), 1–20. [https://doi.org/10.53575/irjmss.v3.2.1\(22\)1-20](https://doi.org/10.53575/irjmss.v3.2.1(22)1-20)
- Maulud, D., & Abdulazeez, A. M. (2020). A Review on Linear Regression Comprehensive in Machine Learning. *Journal of Applied Science and Technology Trends*, 1(2), 140–147. <https://doi.org/10.38094/jastt1457>
- Monks, F. J., Knoers, A. M. P., & Hadinoto, S. R. (2019). *Psikologi perkembangan : pengantar dalam berbagai bagiannya* (18th ed.). Yogyakarta : Gadjah Mada University Press, 2002 © 2019, Gadjah Mada University Press. <https://ugmpress.ugm.ac.id/en/product/psikologi/psikologi-perkembangan-pengantar-dalam-berbagai-bagiannya>
- Muysken, P. (2000). *Bilingual Speech*. THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE The Pitt Building, Trumpington Street, Cambridge, United Kingdom. <https://www.cambridge.org/id/universitypress/subjects/languages-linguistics/sociolinguistics/bilingual-speech-typology-code-mixing?format=HB&isbn=9780521771689>
- Nteziyaremye, A., Ndizeye, A., Nzabakirana, A., Benimana, R., & Mugisha, P. (2024). The Impact of Code Switching and Code Mixing on Learning of English Language in Lower Secondary School level: A Case Study of Selected Schools in Rubavu District, Rwanda. *African Journal of Empirical Research*, 5(3), 571–587. <https://doi.org/10.51867/ajernet.5.3.50>
- Pharamita, T. A., Hardiah, M., & Damayanti, I. (2021). Code Switching and Code Mixing in English Language Learning Class. *Jadila: Journal of Development and Innovation in Language and Literature Education*, 1(3), 302–317.

<https://doi.org/10.52690/jadila.v1i3.117>

- Pratapa, A., & Choudhury, M. (2021). Comparing Grammatical Theories of Code-Mixing. *W-NUT 2021 - 7th Workshop on Noisy User-Generated Text, Proceedings of the Conference*, 158–167. <https://doi.org/10.18653/v1/2021.wnut-1.18>
- Purba, E. N. P., Togatorop, D. P., Simbolon, A., & Sari, Y. (2024). *Analisis Pengaruh Media Sosial terhadap Keberagaman Bahasa : Campur Kode sebagai Tren Komunikasi Anak Muda Universitas Negeri Medan , Indonesia dikalangan anak muda . Platform media sosial seperti Instagram , TikTok , dan WhatsApp di kalangan masyarakat g. 2(4).*
- Raza, D., Latif, A., & Raza, W. (2022). Role of Code-Switching and Code-Mixing in Improving L2 Leaners' Target Language Speaking Skill in Multilingual Settings. *International Research Journal of Education and Innovation*, 3(2), 1–16. [https://doi.org/10.53575/irjei.v3.02\(22\)1.1-16](https://doi.org/10.53575/irjei.v3.02(22)1.1-16)
- Salamat, E., Moge, T., & Maru, M. G. (2022). an Analysis of English Code Mixing Used By Agnez Mo. *SoCul: International Journal of Research in Social Cultural Issues*, 1(2), 93–102. <https://doi.org/10.53682/soculijrccsscli.v1i2.2595>
- Wahyuni, S., & Aeni, N. (2023). Teachers' Perceptions about the Use of Code-Mixing in Teaching English. *Journal of Excellence in English Language Education*, 2(2).
- Widodo. (2021). *METODOLOGI PENELITIAN Populer & Praktis* (1st editio). PT RajaGrafindo Persada.

Appendix

Questionnaire Items

	Statement	SA	A	D	SD
1	Code-mixing allows me to understand better.				
2	Code-mixing makes me feel more confident in classroom.				
3	Code-mixing helps me to develop my language skills.				
4	Code-mixing helps me to boost up my second language skill.				
5	Usage of code-mixing allows me to express the ideas that I cannot express in English.				
6	I think that code-mixing can assist me in group discussion in foreign language classroom.				

7	Usage of code-mixing makes it easy to carry out tasks successfully.				
8	I can understand my teacher's instructions more easily when he/she is using code-mixing.				
9	I follow the teacher more when teaching in Indonesian and English.				
10	Teaching the lesson through code-mixing increases my chances of passing the exams.				
11	I feel less stressful in my English class because my teacher will explain meaning of difficult words in another language.				
12	It confuses me when teacher teaches in Indonesian and English at the same class period.				
13	I feel teacher violates the rules of English when he/she mixes codes.				
14	I think that there is a need of code-mixing to communicate with other students in the ELT (English Language Teaching) classroom.				
15	I think that code-mixing can assist the L2 learners (people who are learning a second or foreign language) during the communication with teachers and students.				

Adapted from (Khaliq et al., 2022) and (Raza et al., 2022)