

An Analysis of Code-Switching Used by English Study Program Students Through WhatsApp Group

Muhammad AL Hudaifi Lubis¹ Supriusman² Maria Safriyanti³

English Study Program, Faculty of Teacher Training and Education, University of Riau,
Pekanbaru City, Province of Riau, Indonesia^{1,2,3}

Email: muhammad.al5804@student.unri.ac.id¹ supriusman@lecturer.unri.ac.id²
maria.safriyanti@lecturer.unri.ac.id³

Abstract

This study Investigated the types and reasons for code-switching used by students of the English Study Program at Riau University in WhatsApp group communication. As digital communication has increasingly expanded into academic and social interactions, code-switching has emerged as a common linguistic behavior among bilingual and multilingual speakers. By employing a qualitative content analysis approach, the researcher analyzed WhatsApp chat logs from WhatsApp groups and conducted semi-structured interviews with selected participants. The findings show that intra-sentential switching is the most frequently used type, followed by tag switching and inter-sentential switching. Most students inserted English terms such as “deadline” or “handle conclusion” within Indonesian sentences, reflecting their bilingual proficiency and exposure to academic discourse. The main reasons for code-switching include linguistic competence, social identity and solidarity, situational context, audience design, and the need for emphasis or clarification. The results of this study highlight how students adapt their language use to fit the communicative context in digital academic spaces, reflecting their bilingual identity and pragmatic language strategies.

Keywords: WhatsApp, Code-Switching, Bilingualism



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

INTRODUCTION

Language is a fundamental tool used by humans to communicate, interact and build relationships. In a multilingual society like Indonesia, it is common for speakers to use more than one language in their daily interactions. Indonesia speaks Indonesian as the national language, but many citizens are bilingual or multilingual, often switching between local languages, Indonesian and sometimes English in their communication (Zein, 2017). This linguistic behavior, known as code-switching, is a significant area of study in sociolinguistics, which explores the interaction between language and society (Bhatti et al., 2018). With the rise of digital communication technologies, especially in the Industry 4.0 era, language practices have undergone a substantial transformation. Communication is no longer limited to face-to-face interactions, but has expanded to virtual platforms that enable real-time, long-distance and often informal exchanges. Social media and messaging apps such as WhatsApp have become integral tools of everyday communication, especially among students. WhatsApp, developed in 2009, offers features such as instant messaging, voice notes, video calls and group chats, making it one of the most widely used apps for both personal and academic communication (Dike et al., 2019; Statista, 2024).

Students of the English Study Program at Riau University, like other students in Indonesia, use WhatsApp groups frequently to manage academic activities, coordinate assignments, and socialize with classmates. The flexibility and informality of WhatsApp encourages spontaneous communication where students often alternate between Indonesian and English. According Pérez and Palacios (2020), WhatsApp is preferred for its user-friendly interface and the way it facilitates group discussions and multimedia sharing, increasing its role in the academic

environment. The researcher, as a participant observer in the Class C WhatsApp group, observed frequent code-switching among students during informal and academic discussions. Unlike formal classroom settings, WhatsApp group conversations are unmonitored and allow students to express themselves freely, often switching languages depending on the topic, context or people involved in the conversation. This reflects a broader sociolinguistic trend where bilingual speakers use multiple languages to fulfill various communicative functions (Villarin & Emperador, 2023). Although numerous studies have examined code-switching in face-to-face and classroom contexts, there is a lack of research focused on its manifestation in informal digital communication such as WhatsApp group chats. This study addresses that gap by exploring the types and reasons for code-switching among English Study Program students at Universitas Riau, thereby contributing insights into bilingual language practices in academic digital spaces.

Bilingualism

Bilingualism refers to the ability to communicate fluently in two languages. According to Bialystok (2017), bilingual individuals benefit from improved functioning, such as cognitive flexibility and better problem-solving skills. In addition to cognitive advantages, bilinguals also show greater cultural awareness and enhanced interpersonal sensitivity, which contribute to social solidarity (Grosjean, 2018). In educational settings, bilingualism supports academic achievement when students are given the opportunity to develop proficiency in two languages (Collier & Thomas, 2017). Maintaining two languages also helps students maintain their cultural identity and linguistic heritage (García & Wei, 2014).

Language Choice

Language choice is a major aspect of bilingual communication. It is influenced by various factors, including topic, setting, interlocutor, and social identity (Wei, 2018). For example, a bilingual student may speak in Indonesian at home and switch to English during academic discussions. This fluid choice reflects not only linguistic ability but also social awareness. As García and Wei (2014) explain, bilingual individuals often switch languages strategically to express belongingness, convey nuance, or adapt to social expectations. Heller (2019) also notes that language can serve as a form of social capital, providing access to certain networks or opportunities.

Types of Code-Switching

Code-switching is the practice of switching between two or more languages or varieties in a single interaction. Poplack (2018) identifies three main types:

1. Tag Switching: The insertion of fixed expressions or tags (e.g., “you know,” “right?”) from one language to another.
2. Inter-Sentential Switching: The switching of languages between complete sentences or clauses.
3. Intra-Sentential Switching: switching languages within a single sentence or phrase. This is often considered as the most complex type and requires high bilingual proficiency.

It can occur in spoken and written communication, including digital messaging platforms like WhatsApp.

Reasons for Code-Switching

The reasons for code-switching are diverse and often interconnected. Holmes (2022) and Meyerhoff (2019) outline some common motivations:

1. Linguistic Competence: Switching to compensate for limited vocabulary in one language.
2. Social Identity and Solidarity: Aligning oneself with a particular group or creating a sense of community.
3. Situational Context: Adapting language based on formality, topic, or environment.
4. Audience Design: Adapting language to suit the proficiency or preferences of the listener.
5. Emphasis or Clarification: Enhancing meaning or avoiding misunderstanding by switching to more precise or familiar terms.

Li Wei (2018) also introduced the concept of translanguaging, which views code-switching not as something random, but rather as a natural and fluent use of linguistic resources by bilinguals.

RESEARCH METHODS

Research Design

This study employed a qualitative content analysis approach to investigate the types and reasons for code-switching among English Study Program students at Universitas Riau in a WhatsApp group setting. This design was chosen to allow a detailed examination of naturally occurring digital conversations and the contextual factors influencing language use. According to Creswell and Poth (2018), qualitative content analysis is well-suited for exploring communication behaviors through document analysis and interviews, providing rich, descriptive data that explain what and how a phenomenon occurs.

Sample

The population of this study consisted of students from Class C of the English Study Program, Faculty of Teacher Training and Education, Universitas Riau, academic year 2020. The sample was selected using purposive sampling, focusing on students who were actively engaged in WhatsApp group conversations and exhibited code-switching behavior. A total of five students participated in the interview process, while chat logs from the broader group were used for content analysis.

Instrument

Two primary instruments were used:

1. WhatsApp Chat Logs: The researcher collected chat logs from the class group over a specific period to identify instances of code-switching. These logs provided authentic, naturally occurring language data.
2. Semi-Structured Interviews: Interviews were conducted with five selected students to explore their reasons for using code-switching. The interview guide included open-ended questions grouped into three sections: language background, code-switching behavior, and reasons for switching. The questions were adapted from previous studies (e.g., Cahyani & Cahyono, 2018; Guzmán et al., 2020; García & Wei, 2014).

Data Collection Technique

The data collection process involved two techniques:

- Documentation: WhatsApp chat logs were collected from the Class C group chat with participants' permission. These logs were reviewed to identify code-switching instances.
- Interviews: Semi-structured interviews were conducted to understand the students' motivations regarding code-switching. The interviews were collected from the chat with the participants and transcribed for analysis.

Data Analysis Techniques

The collected data were analyzed using thematic analysis, which involved the following steps (Nowell et al., 2017):

1. Familiarization: Repeated reading of chat logs and interview transcripts to gain a deep understanding of the data.
2. Coding: Identifying and categorizing instances of code-switching into three types (tag, inter-sentential, intra-sentential).
3. Theme Development: Grouping codes into thematic categories reflecting reasons for code-switching (e.g., linguistic competence, social identity, audience design).
4. Descriptive Reporting: Presenting themes with supporting excerpts from both chat logs and interview transcripts.

This approach allowed the researcher to capture both the linguistic patterns and contextual motivations behind code-switching in digital academic communication.

RESEARCH RESULTS AND DISCUSSION

This section presents and discusses the types and reasons for code-switching identified in the WhatsApp group of English Study Program students. The data were obtained through WhatsApp chat logs and student interviews, analyzed qualitatively using content and thematic analysis.

Types of Code-Switching

The study revealed that students employed all three types of code-switching as classified by Poplack (2018): intra-sentential, inter-sentential, and tag switching. In total, 91 instances of code-switching were identified across the group chat data.

- Intra-sentential switching was the most dominant type, accounting for 68,14% of the occurrences. This involves the insertion of English words or phrases into Indonesian sentences Example:
"Jangan lupa deadlinenya malam ini."
(Don't forget the deadline is tonight.)
Here, the English noun "deadline" is integrated with the Indonesian possessive suffix "-nya", showing intra-sentential blending. This type was the most frequent, reflecting the students' comfort in embedding English academic terms into Indonesian discourse.
- Tag switching followed at 16,48%. This type includes the addition of a tag or a brief statement in one sentence. Example:
"Wee besok jadi ketemuan, right?"
(So we're meeting tomorrow, right?)
The tag "right?" is appended to a sentence otherwise in Indonesian to seek confirmation or engage the audience. Such tags are often used for social bonding or discourse marking.
- Inter-sentential switching was the least frequent, comprising 15,38% of instances, where students alternated between complete sentences in English and Indonesian. Example:
"Don't worry. Aku yang bantu cari datanya."
(Don't worry. I'll help look for the data.)
The first sentence is in English, followed by a complete sentence in Indonesian. This type indicates fluency in both languages, often used to signal topic shifts or emphasize a point.

These findings are consistent with previous research (e.g., Mukhfizal, 2021; Ameliza & Ambalegin, 2020), which also identified intra-sentential switching as the most common form in

informal digital communication among students. The analysis also showed that code-switching more frequently occurred from Indonesian to English (62.66%) than vice versa (37.33%). This suggests that while Indonesian remained the dominant base language, English was frequently inserted for academic terms, clarification, or emphasis.

Reasons for Code-Switching

Based on thematic coding of interview data, five primary reasons emerged, aligning with frameworks by Holmes (2022), Li Wei (2018), and Meyerhoff (2019):

1. **Linguistic Competence:** Students often switched languages due to lexical gaps or limited vocabulary in English. For instance, participants noted switching to Indonesian when they forgot an English term during a discussion. Example:
“Kadang pas chat dosen lupa Bahasa Inggrisnya apa, ya udah tulis Bahasa Indonesianya aja.” (Student 4)
(Sometimes when I forget the English word, I just write it in Indonesian.) This shows code-switching as a compensatory strategy to maintain communication flow.
2. **Social Identity and Solidarity:** Code-switching was also used to establish familiarity and build a friendly atmosphere among peers. Many students reported feeling more comfortable using a mix of languages depending on who they were speaking to. Example:
“Enggak sih, tapi karena nyaman aja di grup biar makin friendly gitu.” (Student 1)
(Not really, it’s just because I feel more comfortable in the group; it makes things feel friendlier.). Language choice here reflects the speaker’s effort to maintain group cohesion.
3. **Situational Context:** Language use shifted depending on the topic and formality of the conversation. English was more commonly used during academic discussions, while Indonesian dominated in informal exchanges. Example:
“Seringnya sih pas bahas tugas pakai Bahasa Inggris, tapi kalau bahas hal lain langsung ganti ke Bahasa Indonesia.” (Student 1)
(Usually when discussing assignments, I use English. But for other topics, I switch to Indonesian.). This shows students’ awareness of appropriateness in different conversational settings.
4. **Audience Design/Participant:** Students adapted their language based on their interlocutor’s proficiency. English was used when peers were fluent, while Indonesian was preferred for clarity among less proficient speakers. Example:
“Kalau kawan paham Bahasa Inggris, ya pake Bahasa Inggris. Kalau enggak, otomatis pakai Bahasa Indonesia.” (Student 2)
(If my friend understands English, I use English. If not, I automatically use Indonesian.). Students modify their language choice to ensure mutual understanding.
5. **Emphasis or Clarification:** Switching languages allowed students to clarify meaning or emphasize a point. Some terms were seen as more concise or expressive in English, prompting a switch even in otherwise Indonesian-dominant exchanges. Example:
“Kadang kalau jelasin dan kawan susah paham, aku ganti ke Bahasa Indonesia atau Inggris biar mereka paham.” (Student 5)
(Sometimes when explaining and they don’t understand, I switch to Indonesian or English to make sure they get it.). This illustrates how code-switching enhances communicative clarity and effectiveness.

Discussion

The findings revealed that English Study Program students used three types of code-switching in their WhatsApp group conversations: intra-sentential, tag switching, and inter-sentential switching. Among these, intra-sentential switching was the most dominant, making

up 64% of all instances. This type occurred when students inserted English words or phrases into Indonesian sentences, such as in expressions like “handle conclusion” or “deadline.” The high frequency of intra-sentential switching suggests that students naturally blend English into Indonesian for clarity and efficiency, especially in academic contexts. This result is consistent with previous studies by Mukhfizal (2021), Ameliza and Ambalegin (2020), Yuningsih (2021), and Annisa et al. (2020), all of which found intra-sentential switching to be the most common form of code-switching in WhatsApp group settings. Tag switching, which includes short phrases like “right?” or “guys,” appeared in 16.48% of the data and often served pragmatic functions such as seeking confirmation or maintaining group cohesion, aligning with Meyerhoff’s (2022) explanation. Inter-sentential switching, which involves switching between full sentences, was the least common (15.38%) and usually occurred during topic shifts or when addressing different interlocutors.

In terms of reasons for code-switching, the data showed that students switched languages for several purposes: Linguistic Competence, Social Identity and Solidarity, Situational Context, Audience Design/Participant, Emphasis or Clarification. A common reason was difficulty recalling English words, prompting students to use Indonesian to maintain conversation flow, as supported by Holmes (2022). For instance, Student 4 mentioned switching to Indonesian when they forgot an English term. Comfort and social connection also influenced language choice; Student 1 stated that switching made the group feel friendlier, reflecting Meyerhoff’s (2019) idea that code-switching supports group identity. Additionally, students used more English in formal discussions and Indonesian in informal contexts, showing that situational context strongly affected language use. Student 2 reported naturally switching to Indonesian when the topic became casual. Students also considered their peers’ language proficiency, choosing Indonesian for clearer communication when needed, as highlighted by Student 5. Lastly, students used code-switching to emphasize or clarify meaning, ensuring mutual understanding, which supports Holmes’ (2022) view that bilinguals use switching to enhance communication.

CONCLUSION

This study explored the types and reasons for code-switching among English Study Program students in a WhatsApp group setting. The findings revealed that intra-sentential switching was the most frequently used type, accounting for 64% of occurrences. This indicates that students often integrated English words or phrases within their Indonesian sentences, reflecting their bilingual proficiency and the influence of academic discourse. The reasons for code-switching were categorized into five main themes: linguistic limitations, sociocultural identity, situational context, addressee specification, and emphasis or clarification. Students frequently switched to Indonesian when they encountered difficulties in recalling English vocabulary, demonstrating code-switching as a strategy to maintain conversational flow and clarity.

BIBLIOGRAPHY

- Ameliza, S., & Ambalegin. (2020). Code Switching Analysis in English Literature WhatsApp Group. *Journal of English Education and Teaching*, 4(1), 23–32.
- Bhatti, A., Shamsudin, S., & Said, A. M. (2018). Code-switching: A useful foreign language teaching tool in EFL classrooms. *English Language Teaching*, 11(6), 93–101.
- Bialystok, E. (2017). Bilingual education for young children: Review of the effects and consequences. *International Journal of Bilingual Education and Bilingualism*, 20(3), 1–19.
- Cahyani, H., & Cahyono, B. Y. (2018). Teachers’ and students’ perceptions of code-switching in

- English as a foreign language classes: A study in Indonesia. *TEFLIN Journal*, 29(2), 170–193.
- Collier, V. P., & Thomas, W. P. (2017). Validating the power of bilingual schooling: Thirty-two years of large-scale longitudinal research. *Annual Review of Applied Linguistics*, 37, 1-15.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Dike, V. E., Obumneke, O. B., & Amadi, O. M. (2019). Social media and academic performance of business education students in colleges of education in Rivers State. *Journal of Information Technology and Management*, 20(1), 1–14.
- García, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. Palgrave Macmillan.
- Grosjean, F. (2018). Bilingualism: A short introduction. *Bilingualism: Language and Cognition*, 21(1), 1-5.
- Guzmán, E., Brown, A., & Brown, D. (2020). Multilingual code-switching on WhatsApp: Practices, motivations, and identity constructions among bilingual and multilingual youths. *Journal of Pragmatics*, 158, 29–45.
- Heller, M. (2019). Linguistic minorities and social justice: An introduction to the special issue. *Language in Society*, 48(1), 1–10.
- Holmes, J. (2022). *An introduction to sociolinguistics* (6th ed.). Routledge.
- Li, W. (2018). Translanguaging as a practical theory of language. *Applied Linguistics*, 39(1), 9–30.
- Meyerhoff, M. (2019). *Introducing sociolinguistics* (5th ed.). Routledge.
- Mukhfizal, M. (2021). An Analysis of Code-Switching in WhatsApp Group Communication. *Journal of English Language Teaching and Linguistics*, 6(1), 10–25.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1–13.
- Pérez, R., & Palacios, J. (2020). The effectiveness of WhatsApp in language learning: Students' perspectives. *Language Learning & Technology*, 24(2), 79–98.
- Poplack, S. (2018). Sometimes I'll start a sentence in Spanish y termino en español: Toward a typology of code-switching. *Linguistics*, 18(7/8), 581–618.
- Statista. (2024). Most popular global mobile messenger apps as of January 2024, based on number of monthly active users. <https://www.statista.com/>
- Villarin, J. F., & Emperador, M. G. (2023). Linguistic insecurity and code-switching in higher education. *Philippine Journal of Linguistics*, 54(1), 21–37.
- Zein, S. (2017). Bilingual education in Indonesia: Issues and challenges. *Indonesian Journal of Applied Linguistics*, 7(1), 1–10.