Volume 20, Issue 4, DOI: https://doi.org/10.17576/ebangi.2023.2004.13

eISSN: 1823-884x

Article

An Analysis of Code-Switching in Hitz FM Instagram Comments

Munirah 'Izzati Ismail & Nor Eleyana Abdullah*

The Academy of Language Studies, Universiti Teknologi Mara (UiTM) 40450 Shah Alam, Selangor Malaysia

*Corresponding Author: eleyanaabdullah@uitm.edu.my

Received: 10 August 2023 Accepted: 09 October 2023

Abstract: The phenomenon of code-switching nowadays used by the multilingual society and online community such as in Malaysia to communicate is often encountered on various social media platforms, including Instagram. Haryanto and Mahendra (2021) posited that code-switching is frequently found on Instagram and usually used by bilingual communities to write captions for photos or videos, and in their comments. However, the research on analysing code-switching on Instagram in Malaysian context is still understudied. Thus, this study aimed to examine the types of Malay-English code-switching expression on Hitz FM Instagram comment, and the reasons for code-switching in social networking websites by employing the framework by Poplack (1980) and Malik (1994) respectively. A thematic analysis was used to classify a one-year data consisting of f 323 Instagram comments into types and reasons for code-switching. The findings revealed the most occured type was intra-sentential (75.85%) followed by tag-switching (17.03%) and intersentential (7.12%). Whereas, out of the 10 reasons by Malik (1994), only 8 were found with the most reason was due to lack of competence (41.18%). Therefore, the findings suggest that social media users in a multilingual society frequently code-switch for various reasons when communicating on Instagram. It is hoped that the findings from this study will contribute more insights into the field of linguistics, and benefit future research.

Keywords: code-switching; multilingual; Instagram, intra-sentential; tag-switching; inter-sentential

Introduction

Ever since the digital revolution, communication was not only limited to conventional communication, but also has become more sophisticated and computerised. Digital communication has become an essential component of daily interactions among people (Lee, 2020). "While the Internet and the World Wide Web have always been used to facilitate social interaction, the emergence and rapid diffusion of Web 2.0 functionalities during the first decade of the new millennium enabled an evolutionary leap forward in the social component of web use" (Obar & Wildman, 2015, p. 745). This has led to how web-based communication is revolutionised with the arrival of Web.20 application such as the social media which facilitates online communication. The way people communicate has undergone major changes as a result of the central position that social media has in people's lives (Wong et al., 2021). Kapoor et al. (2018) defined social media as user-driven platforms that enable the sharing of interesting content, the fostering of conversations, and connection with a larger audience in a digital setting for multi-level interaction and networking. With the availability of social media platforms for the online community to communicate, the phenomenon of code-switching is encountered frequently on various platforms. Digital Business Lab (2022) has reported that as one of the top three social networking platforms frequently used in Malaysia in 2022,

Instagram which is ranked third after WhatsApp and Facebook, is also frequently used by the digital and mobile community. Instagram has emerged as one of the popular social media applications that code-switching can evidently be found in the communication between the users. The availability of simpler words in the language that people code-switch to was the main factor that motivates social media users to do so (Zulkifli & Tengku Mahadi, 2020), which is also apparent in the way Instagram users interact. Haryanto and Mahendra (2021) posited that code-switching is frequently found on Instagram and usually used by bilingual and multilingual communities to write captions for photos or videos that they upload to Instagram, as well as in their comments. Thus, it is proven that code-switching is prevalent in the routine interactions of multilingual users on Instagram.

Despite the popularity of Instagram, research on its relation to the use of language particularly codeswitching is still underdeveloped in Malaysia. More related studies were produced in the Asian region such as Ardila (2022) who conducted a study on analysing the use of code-switching in responding to the viral status on Instagram in Indonesia, while Ginanti (2018) conducted a study on analysing code-mixing and codeswitching on Filipino's Instagram account specifically on comments and captions. Other studies focused on identifying the types and reasons for code-switching on Instagram in Indonesia (Anjarani, 2021; Haryanto & Mahendra, 2021; Kamariah & Ambalegin, 2019). Hence, this study intended to fill the present gap in Malaysia. Moreover, although discourse or content analysis on code-switching in Malaysia is a popular area to explore, yet more were conducted on other social media platforms such as Facebook, Twitter, and WhatsApp. For example, a content analysis study on the functions of code-switching in students' Facebook wall posts was conducted by Ting and Yeo (2019). Besides that, a study on code-switching among Malaysian teenagers on Twitter was performed by Tengku Mohamad Faiz (2019) and a study by Mohd Roslan et al. (2021) focused on analysing the types and influences of code-switching as well as the reason for codeswitching on WhatsApp, to name a few. Therefore, with the limited studies on code-switching on Instagram, particularly between the dominant language of Malay-English code-switch in Malaysia, this study aimed to provide more insights and contribution to further develop this research area based on these two research objectives:

- i. To analyse the types of Malay-English code-switching expressions used in the comments on Hitz FM Instagram posts.
- ii. To identify the reasons for using Malay-English code-switching in the comments on Hitz FM Instagram posts.

Literature Review

The internet enabled communication to not only happen conventionally, but also digitally. However, the arrival of Web 2.0 has ever since changed the way communication is done on the digital platform. Lee (2020) stated that language users' social interactions and ability to bond with other people have been considerably impacted by the recent advances in communication technology whereby geographical, cultural, and language barriers are no longer as rigid and dividing as they once were; belonging to the same ethnic or cultural group is not a prerequisite for developing a feeling of community. The Web 2.0 applications or social media platforms such as Instagram, Facebook, Twitter, and many more have revolutionised digital communication between users on the internet where people could become more interactive. This is because the applications are developed to let users both produce and consume information while interacting, collaborating, and sharing (Obar & Wildman, 2015). Therefore, digital communication on social media platforms is now an essential component in daily interactions among people.

With the availability of social media platforms for the multilingual online community to communicate, the phenomenon of code-switching nowadays is often encountered on various platforms. According to Jose et al. (2020), in the field of study on natural language processing particularly among multilingual speakers, code-switching is an emerging trend. For instance, a multicultural and multilingual country like Malaysia "nurtures the code-switching phenomena naturally in every edge of interaction amongst the communities regardless of gender, age, status and society" (Tati, Doring & Narasuman, 2020, p. 98). Code-switching happens for many reasons but the bilinguals in Malaysia who speak Malay and English tend to code-switch when they struggle to find the right word or when there is no suitable English equivalent for the word and they frequently switch

or mix between the two languages in these circumstances (Rahmat, Othman & Unin, 2019). Moreover, Hadei, Vigneswari and Koik (2016) posited that code-switching among Malay-English users in Malaysian multilingual society is done for various social reasons.

Many scholars in sociocultural linguistics have defined code-switching. Poplack (1980) defined it as the alternation of two languages within a single discourse, sentence, or constituent. On the other hand, Gumperz (1982) defined conversational code-switching as "the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems" (p. 59). A broad definition of code-switching is "alternate use of two languages or linguistic varieties within the same utterance or during the same conversation" (Hoffman, 1991 as cited in Kuang, 1999, p. 78). In short, a transition from one code to another is referred as code-switching (Mewengkang & Fansury, 2021).

Poplack (1980) and Hoffman (1991), categorised code-switching into a few types which are intrasentential, inter-sentential and tag switching. This study adopted Poplack (1980) codes-switching theory which outlined three types which are inter-sentential, intra-sentential and tag-switching which are explained below:

- i. Inter-sentential code-switching When each clause or phrase is in a different language, there is a language change at the sentence level. It is a switch from one language variety to another outside the sentence or the clause level within a single utterance.
- ii. Intra-sentential code-switching Language changes within the bounds of a phrase or sentence. Code changing, insertion, code mixing, and congruent lexicalization are some of the forms it can take.
- iii. Tag-switching Tag switching happens when the speakers tag a certain set of phrases or words in one language into another in an utterance. The occurrence of tag switching is often due to the lack of vocabulary by the users.

Eldin (2014) stated that code-switching is then one phenomenon that results from bilingualism and multilingualism, therefore sociolinguists have always been interested in studying the phenomenon and the reasons that stand behind it. Appel and Muysken's (2006) argued that code-switching is employed to accomplish various goals in social interaction in their functional model of code-switching which outlined six functions of code-switching: referential, directive, expressive, phatic, metalinguistic and poetic. However, since code-switching can be identified not only based on types but also social purposes on social media, the framework of Malik (1994) who investigated the reasons to code-switch in social networking websites was applied. The reasons are listed as follows:

- i. Lack of facility When bilinguals or multilinguals cannot think of an appropriate expression or vocabulary item, or when the language used in the conversation lacks specific words required to continue the conversation smoothly, they will tend to code-switch.
- ii. Lack of competence Code-switching happens when speakers are not equally proficient in both languages, and also when the speakers are not familiar with the terms in both languages.
- iii. Semantic significance When speakers perceive two languages, code-switching at that precise moment will convey semantically significant information and serve as a communicative resource because lexical choice carries meaning.
- iv. To address different audience Code-switching is used when addressing listeners from different linguistic backgrounds. Utilising multiple languages at once to address individuals with various linguistic backgrounds is one reason for doing so. Additionally, speakers make it clear whom they are speaking to and what needs to be communicated.
- v. To show identity with a group Code-switching will be used by speakers when telling a joke and giving a punch line using two different languages, not only because it sounds better in their native language but also to emphasise the fact that they all come from the same minority group and have similar beliefs and experiences.
- vi. To amplify and emphasis a point Code-switching is also used to emphasise a point as well as to help end the conversation.

- vii. Mood of the speaker Code-switching will occur with a new dimension when bilinguals are tired or angry. It is because speakers will find the appropriate word or expression in their base language when they are in the right state of mind.
- viii. Habitual expression Code-switching commonly occurs in fixed greetings and parting, commands and requests, invitations, expressions of gratitude and also discourse markers.
- ix. Pragmatic reasons When it comes to the conversational context, switching between two languages can be very meaningful at times.
- x. To attract attention Code-switching is used in written and spoken advertisements to grab the readers' and listeners' attention.

"The term code-switching has not coined in the early years of the twentieth century, however, code-switching in textual form become more prominent after the Internet boom" (Jose, et al., 2020, p.136). In this twenty-first century, this phenomenon of textual code-switching is commonly manifested in Instagram posts, comments, stories, and captions, to name a few. Previous studies by Nuraeni, Farid and Cahyati (2018) found that Indonesian Instagram users used code-mixing such as words, phrases, idiomatic expressions, and clauses based on 23 captions of Instagram posts by 18 Instagram users, while Rezeki and Sagala (2021), studied the type of code-switching and code-mixing used by five Indonesian celebrities in their Instagram captions and the most used was external code-switching with 18 occurrences, followed by insertion code-mixing and lastly alternation code-mixing. Aside from Instagram captions, comments on Instagram posts are also a written form of code-switching. Ardila (2022) in her study of the Use of Code-Switching in Responding to "Viral" Status on Instagram demonstrated that most of the Indonesian's expressions in the comments section use intersentential code switching. Based on some of the previous studies mentioned to date, it is apparent that the investigation in this area is still underdeveloped in Malaysia and there is a need to add more perspectives not only on codeswitching in general, but specifically how it is manifested in one of the understudied social media platforms which is Instagram.

Methodology

1. Research Design

This study employed a qualitative approach using discourse analysis. According to Hjelm (2021) discourse analysis is the study of how language is used to carry out actions by looking at how language is used to build identities, relationships, beliefs, and knowledge systems. By using discourse analysis, the study analysed codeswitching in the comments on Instagram, particularly Hitz FM Instagram profile, which is a famous English radio station in Malaysia.

2. Sample and Sampling Technique

This study employed purposive sampling method as the study only focuses on Malay-English code-switching in the comments on Hitz FM Instagram posts. A purposive sampling is a useful non-probability sampling technique that allows researchers to reach a targeted sample quickly because it is chosen based on population characteristics and the study's objective (Crossman, 2020). This sampling method was useful as it allowed the researcher to obtain data in a short period of time due to the time limitation. The selection of an English radio station Instagram account was due to the need of addressing limitations from previous research as well as offering more insights into this underdeveloped area of study.

Hitz FM Instagram account was selected based on the ranking statistics as reported by Astro (2022) based on the survey done by The GfK Radio Audience Measurement Survey (RAM) Wave 1, 2022. The survey reported that Hitz FM has maintained its position as the most popular English radio station in Malaysia with 1.2 million listeners weekly. Not only that, Hitz FM was chosen not only because it has the most listeners, but also because it has the most followers on Instagram among all the Malaysian English radio station Instagram accounts. A total of 323 public comments on Hitz FM Instagram posts were identified and chosen based on the sampling method. Patton (2015, as cited in Nor Hairunnisa & Nor Syamimi, 2022), outlined three steps in the purposive sampling strategy: determine inquiry purposes, focus inquiry questions, and decide the

type of data to collect. Therefore, the Instagram comments which only contain Malay-English code-switching were chosen as the type of data in this study.

3. Data Collection

The data collection procedures for this research started by looking into Hitz FM Instagram account and identifying the expressions of code-switching in the comment sections on the posts from July 2021 to August 2022. Next, the print-screen of the comments that contain Malay-English code switching were taken and copied into a data collection table. A total of 323 public comments were chosen based on the selection steps and criteria. Lastly, the analysis was done using the framework by Poplack (1980) and Malik (1994) respectively.

4. Data Analysis

The data for this study was analysed descriptively to answer the research questions of this study which were categorised based on the types of code-switching and reasons for code-switching on Hitz FM Instagram comments. Firstly, the occurrence of code-switching was counted and classified based on the theoretical framework by Poplack's (1980) three types of code-switching which are tag-switching, intra-sentential, and inter-sentential. Secondly, Malik's (1994) 10 reasons for code-switching in online communication was adopted to identify the reasons of code-switching used in the comments on Hitz FM Instagram posts. The 10 reasons were lack of facility, lack of register competence, mood of the speaker, to emphasise a point, habitual expressions, semantic significance, to show group identity, to address different audiences, pragmatic reasons and to attract attention. Next, the frequency of the occurrences of the data was analyse and presented in descriptive statistics using Microsoft Excel. Inter-rater reliability was used in this study, whereby evaluations were done between raters to determine the degree to which various raters can consistently get the same score of categories for the study subject (Harvey, 2021). To improve reliability in this study, the data was analysed, compared, and discussed by the researchers to reach a consensus of each specific category and validate the conclusion of the study.

The Findings

1. Types of Malay-English Code-switching Expressions used in the Comments on Hitz FM Instagram Posts Table 1 demonstrates the findings of the total occurrences (323) of the three types of code-switching found in the comments on Hitz FM Instagram posts. The most frequently used is intra-sentential type with a total of 75.85% followed by tag-switching with a total of 17.03% and the least used is inter-sentential which holds only 7.12% of the frequency.

Code-Switching Types	Frequency	Percentage (%)
Intra-sentential	245	75.85
Tag-switching	55	17.03
Inter-sentential	23	7.12
Total	323	100

Table 1. The frequency and percentage of code-switching types

Based on the table above, intra-sentential occurred the most in the comments of Instagram users on Hitz FM posts. This type of code-switching, according to Rahmat et al. (2019), occurs when the speaker switches languages within the sentence. This was the most used type of code-switching in multiracial countries like Malaysia as there are forms such as insertion, code mixing, and congruent lexicalization (Poplack, 1980). The examples below illustrate the use of intra-sentential code-switching in the Instagram comments by the users:

[&]quot;Still can't get over the fact that she jalan jalan at sungei wang"

The second highest occurrence was recorded by tag-switching. Tati et al. (2020) stated that the injection of a tag or exclamation in a language's sentences is known as tag-switching. This type of code-switching serves as a sentence filler and an ethnic identity marker in the other language. Moreover, as reasoned by Poplack (1980), users also often tag-switch due to the lack of vocabulary. Below are the examples of tag-switching found in the comments by the Instagram users:

"If someone talked too much, you also can geram right? i think your husband also be like him"

"Alamak 4.15 Am im gonna sleep"

Lastly, the type with the least occurrence was inter-sentential switching. It is a switch from one language variety to another outside the sentence or the clause level within a single utterance (Poplack, 1980). In this case, the switch between Malay-English or vice versa was done in separate clauses or sentences. The examples below show how intra-sentential code-switching was done by the Instagram users:

2. Reasons for using Malay-English Code-switching in the Comments on Hitz FM Instagram Posts. Table 2 shows the ten reasons for code-switching in the comments on Hitz FM Instagram posts. There were only eight out of the ten reasons found in the data collection. The highest percentage of reason for code-switching was the lack of competence with a total of 41.18%, semantic significance fell second at 17.95%, while the lowest occurrence was to address different audiences at 2.48%. Interestingly, none of the code-switching found in the data was done for pragmatic reasons and to attract attention.

Code-Switching Reasons	Frequency	Percentage (%)
Lack of facility	35	10.85
Lack of competence	133	41.18
Semantic significance	58	17.96
To address different audience	8	2.48
To show identity with a group	22	6.81
To amplify and emphasise a	23	7.12
point		
Mood of the speaker	13	4.02
Habitual expressions	31	9.60
Pragmatic reasons	0	0.00
To attract attention	0	0.00
Total	323	100

Table 2. The frequency and percentage of the ten reasons to code-switching

Based on the findings in the table above, Instagram users were found to code-switch due to lack of competence the most in their comments. Lack of competence is used when a speaker's primary language lacks a specific vocabulary, they transfer the codex to the second language throughout the interaction. Below are the instances of code-switching used for this reason:

Next, Instagram users used code-switching because of semantic significance which fell in second place. It works as a communicative resource that builds on participants' perceptions of two languages, code-

[&]quot;What was the answer? tak sempat dengar"

[&]quot;What ever still, I continue put on mask where ever I go. I don't want kena covid"

[&]quot;Msia version: i found a lipas in my roti canai tapau, now the restaurant kena saman and closed by jabatan kesihatan"

switching at a particular instant transmits semantically relevant information. The examples of comment are illustrated below for this type of reason:

"All the best Both of you!! Hope kaki tak rabak! Anyway Selamat Hari Merdeka! Hope We Merdeka From All every aspect"

"Easy peasy, kacang rebus! The One and Only @cristiano"

The third most frequent reason to code-switch by the Instagram users on Hitz FM posts was lack of facility. This happens when the speaker frequently switches the words between languages due to limited expression, and the words or phrases they use is a compensation for the limitation of their vocabulary. Below are the examples of comment to illustrate this type:

"How can he NOT realise that the concert it's like on that day?? Weyyyy.... Alarm reminder tak set ke?? Adoi~ Gone case lah dah lah beli 5 ticket haih"

"I always told my lil brother that we pungut him at pasar raya."

Next, habitual expression was moderately employed as the reason for code-switching in the Instagram comments by the users. This occurs when the phrases such as greeting, commands, parting, expressions of gratitude and discourse markers were used in an utterance. The examples of comment below exemplify this reason:

"Jap la, Grammy otw kan"

"Adoi can u diam ah, talk so much go do podcast la"

To amplify a point was used less among the Instagram users in their comments. Users code-switch for this reason to conclude or highlight points in an utterance spoken by the speaker. Textually, users were also commonly found to use capital letters to amplify points and exaggerating the end letter in the spelling of the amplified words. The comments below served as the examples of how code-switching was used for this reason:

"PUNYALAH AKU INGAT YOU TWO LEAVING, Congratulations guyssss"

"that's easy, just said "BAPAK AH!" semua orang tau kau orang Malaysia 🤣 🤣 joke joke saja ya 🥰 "

To show identity with a group was found to be used less by the Instagram users as well. It is used by the speakers to evoke a sense of familiarity and connection among members of a group who are similar in identity, values, culture, or ethnicity. The examples of comment below illustrate this reason:

"Dei macha, wanna go bungkus nasi or not? Later don't say tak belanja ah..."

"Same here. Lunch hour. All rush tapau nasi at mamaksss"

Mood of the speaker was among the least occurred reason to code-switch among Instagram users in their comments. It happens when a speaker expresses his or her sentiments or mood which may be influenced by emotional elements such as fear, enjoyment, or rage. Below are the examples of comment for this reason:

"Can get free justin bieber tickets tak?? Didn't manage to secure them just now got kicked out got scammed from the web super depressed"

"The part where my eyes jadi waterfallll. 🏉 🏉 🧨"

Lastly, the least used reason for code-switching among the Instagram users in their comments is to address different audience. It is employed when the speaker is aware and intends to address audiences coming from various linguistic backgrounds. The examples of comment below illustrate this reason:

"Alfatihah takziah, my condolences. she same age with me"

"The uniform. Like what happening in cllinics/hospital. We doctors have to think on what to wear every day, while MAs and Nurses doesnt have to think about it at all. And they looks so cool in uniforms. And other frontliners like abang 2 and kakak 2 bomba/polis/askar. Auto handsome wey. Seriously."

Discussion

This study identified the types and reasons for code-switching in Hitz FM Instagram comments. The findings revealed Instagram users on Hitz FM Instagram account used code-switching in their social media comments very frequently. It justified by Tati et al. (2020), the multilingual environment in Malaysia fosters the code-switching phenomenon naturally at every point of interaction. According to the findings, the most used type of code-switching was intra-sentential (78.85%). The finding agrees with Haryanto and Mahendra (2021) whereby on Instagram, users are found to perform intra-sentential more frequently compared to the other types. However, it opposes Anjarani (2021) as she revealed tag-switching to be the most frequently used type among Indonesian English major students on Instagram. In contrast, tag-switching was found to be moderately used among the users in this study (17.03%). Finally, the less occurred type of code-switching used by Malaysian users in their Instagram comments was inter-sentential (7.12%). This finding argues with Manik et al. (2020) whereby it was found that tag-switching was used the least.

Moving on to the reasons for code-switching and code-mixing, the most significant reason in this study was the lack of competence (41.18%). It was found that Instagram users tend to use the words in their mother tongue whenever their vocabulary is limited. This finding supports Malik (1994) that this happens when speakers are not equally proficient in both languages and when the speakers are not familiar with the terms in both languages, thus as what was reflected in the highest occurrence for lack of competence. Moreover, the second highest occurrence of reason for code-switching in this study was semantic significance as most of the Malay speakers would use the English-Malay or vice versa code-switch comfortably without hindering the meaning of the utterances. Semantic significance happens when the speaker wants to convey semantically significant information based on listeners' interpretation of two languages (Ardila, 2022). Lastly, the least common reason used by the users to code-switch was to address different audiences at 2.48%. Hadie et al. (2016) revealed the opposite in his study among bilinguals who used Malay-English in social interactions whereby most frequent reason was to show identity, while the least was to show mood.

Conclusion

This study aimed to discover the phenomenon of code-switching on social media which was done on Instagram in the comments sections on Malaysia's famous radio station, Hitz FM. The findings of this study demonstrated that code-switching is an integral part of the online communication among users in a multilingual society like Malaysia. Moreover, the bilinguals or multilinguals in Malaysia who speak Malay and English were found to naturally employ code-switching for various reasons on Instagram. Moreover, this study intended to bring forward the code-switching done on this platform in Malaysia, which was less emphasised compared to other social media competitors. Evidently, the findings revealed high occurrences of types and reasons on this platform, which proved its relevance and significance in the development of sociolinguistics in general, and code-switching on social media platforms in particular.

Therefore, it is hoped that the findings from this study will contribute more insights into the related fields, and benefit future research. There are a few recommendations for future research. Firstly, one of the limitations that can be identified was from the methodological aspect. Since this study utilised a qualitative approach, it is recommended for future researchers to employ quantitative or mixed methods in order to achieve more statistically significant and enhanced results. Next, it is also recommended for future researchers

to carry out a comparable study by utilising different frameworks. In addition, future researchers also can study on different codes such as Mandarin-English or Tamil-English on Instagram since this study only focused on Malay-English codes.

Acknowledgement: The authors would like to express their gratitude to Instagram, the public comments, Akademi Pengajian Bahasa UiTM Shah Alam, and everyone who has directly and indirectly contributed to this study.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Anjarani, M. (2021). An Analysis on The use of code switching in instagram used by English students in UNISMA. *Jurnal Penelitian, Pendidikan, Dan Pembelajaran, 16*, 13.
- Appel, R., & Muysken, P. (2006). Language contact and bilingualism. Amsterdam University Press.
- Ardila, I. (2022). The use of code switching in responding to "viral" status on Instagram. *Proceedings of the First International Conference on Democracy and Social Transformation, ICON-DEMOST 2021, September 15, 2021, Semarang, Indonesia*. https://doi.org/10.4108/eai.15-9-2021.2315604
- Astro. (2022). *Astro Radio grew reach by 3% to 16.4 mil weekly listeners | Press Release | Mediaroom | Astro*. Corporate.astro.com.my. https://corporate.astro.com.my/mediaroom-releases/astro-radio-grew-reach-by-3-to-16-4-mil-weekly-listeners
- Crossman, A. (2020, March 19). What you need to understand about purposive sampling. ThoughtCo. https://www.thoughtco.com/purposive-sampling-3026727
- Digital Business Lab. (2022, July 26). Social media penetration in Malaysia [Research]. *Digital Business Lab.* https://digital-business-lab.com/2022/07/
- Eldin, A. A. T. S. (2014). Socio Linguistic study of code switching of the Arabic language speakers on social networking. *International Journal of English Linguistics*, *4*(6). https://doi.org/10.5539/ijel.v4n6p78
- Ginanti, E. (2018). Code mixing and code-switching analysis in Filipino's Instagram accounts captions and comments. UNDIP. http://eprints.undip.ac.id/65725/
- Gumperz, J. (1982). Discourse strategies. Cambridge University Press.
- Hadei, M., Vigneswari, C. K., & Koik, S. J. (2016). Social factors for code-switching-a study of Malaysian-English bilingual speakers. *International Journal of Language and Linguistics*, 4(3), 122-127. https://doi.org/10.11648/j.ijll.20160403.15
- Harvey, N. D. (2021). A simple guide to inter-rater, intra-rater and test-retest reliability for animal behaviour studies (No. 8stpy). Centre for Open Science. https://doi.org/10.31219/osf.io/8stpy
- Haryanto, S., & Mahendra, A. (2021). Types and reasons of using code switching in instagram. *Profunedu International Conference Proceeding*, 3, 83–88.
- Hie Tang, S., & Liang Yeo, K. (2019). Code-switching function in Facebook wallposts. *Human Behavior, Development and Society*, 20(3).
- Hjelm, T. (2021). Discourse Analysis. In S. Engler & M. Stausberg (Eds.), *The Routledge handbook of research methods in the study of religion* (2nd ed) (pp. 229-244). Routledge.
- Hoffman, C. (1991). An introduction to bilingualism (1st ed.). Longman.
- Jose, N., Chakravarthi, B. R., Suryawanshi, S., Sherly, E., & McCrae, J. P. (2020, March). A survey of current datasets for code-switching research. In 2020 6th international conference on advanced computing and communication systems (ICACCS) (pp. 136-141). IEEE.
- Kamariah, K., & Ambalegin, A. (2019). An analysis of using code switching in Instagram. *Jurnal Basis*, 6(2), 259-266.
- Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Information Systems Frontiers*, 20, 531-558.
- Kuang, C. H. (1999). Factors affecting code switching: A case study of an urban family in Petaling Jaya. *Journal of Modern Languages*, 12(1), 77-89.

- Lee, J. S. (2020). Digital communication, social media, and Englishes. World Englishes, 39(1), 2-6.
- Malik, L. (1994). Socio-linguistics: A study of code-switching. Anmol Publication PVT. LTD.
- Manik, C. C. M., Hutauruk, B. S., Herman, Purba, C. N. (2020). Code-mixing and code-switching found in photo captions instagram of Indonesian celebrities in 2020. *Global Scientific Journal*, 8(9), 1344-1363.
- Mewengkang, C., & Fansury, A. H. (2021). Writing daily status on social media: Code-mixing and code-switching phenomena: A literature review. *Klasikal: Journal of Education, Language Teaching*, *3*(3), 80–87. https://doi.org/10.52208/klasikal.v3i3.110
- Mohd Roslan, A. N., Mahmud, M. M., & Ismail, O. (2021). Why Code-switch on whatsapp? A quantitative analysis of types and influences of code-switching. *Asian Social Science*, *17*(10), 43. https://doi.org/10.5539/ass.v17n10p43
- Nor Hairunnisa Mohammad Nor, & Nor Syamimi Iliani Che Hassan. (2022). A speech act study of online comments towards covid-19 report in the Malaysian National Security Council's official facebook page. *ESTEEM Journal of Social Sciences and Humanities*, 6(2), 147-163.
- Nuraeni, B. L., Farid, M. Z., & Cahyati, S. S. (2018). The use of Indonesian English code mixing on Instagram caption. *PROJECT (Professional Journal of English Education)*, 1(4), 448. https://doi.org/10.22460/project.v1i4.p448-453
- Obar, J. A., & Wildman, S. S. (2015). Social media definition and the governance challenge-an introduction to the special issue. *Telecommunications Policy*, *39*(9), 745-750. https://dx.doi.org/10.2139/ssrn.2647377
- Poplack, S. (1980). Sometimes i'll start a sentence in spanish Y TERMINO EN ESPAÑOL: Toward a typology of code-switching. *Linguistics*, *18*(7-8). https://doi.org/10.1515/ling.1980.18.7-8.581
- Rahmat, N. H., Othman, N. A., & Unin, N. (2019). Exploring the functions and reasons for inter-sentential code-switching among lecturers. *European Journal of English Language Teaching*, 4(4), 112–129. http://dx.doi.org/10.5281/zenodo.3228544
- Rezeki, T. I., & Sagala, R. W. (2021). The realization of code mixing and code switching of Indonesian celebrities' caption on Instagram. *Jurnal Serunai Ilmu Pendidikan*, 7(1). https://ejournal.stkipbudidaya.ac.id/index.php/ja/article/download/391/303
- Tati, J. S., Doring, L. K., & Narasuman, S. (2020). Analysis of types of code switching among community college students in Sabah Malaysia. *Journal of Social Science Advanced Research (JOSSAR)*, 2(4), 97–109. Research Gate.
- Tengku Mohamad Faiz Tg Azhar (2019). *The use of code-switching on Twitter among Malaysian teenagers*. MALRep.
- Ting, S. H., & Yeo, D. K. L. (2019). Code-switching Functions in Facebook Wallposts. *Human Behavior, Development & Society*, 20(3).
- Wong, A., Ho, S., Olusanya, O., Antonini, M. V., & Lyness, D. (2021). The use of social media and online communications in times of pandemic COVID-19. *Journal of the Intensive Care Society*, 22(3), 255-260. https://doi.org/10.1177/1751143720966280
- Zulkifli, Z. I., & Tengku Mahadi, T. S. (2020). Reasons to code-switch: A case study of Malaysian Twitter users. *Rangsit Journal of Social Sciences and Humanities*, 7(1), 35–43.