# CODE-MIXING AND CODE-SWITCHING MANIFESTATION IN COMPUTER MEDIATED COMMUNICATION (CMC) – AN ANALYSIS ON THE WRITTEN INTERACTION BETWEEN ENGLISH DEPARTMENT MEMBERS

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## ABSTRACT

Code-mixing (CM) and code-switching (CS) are common patterns that can be observed in the spoken and written language among multilingual speakers. The manifestation of code-mixing and code-switching in Computer Mediated Communication (CMC) is inevitable in the wake of the technological waves that pervaded everyday's interactions. CMC is defined as any form of communication via the usage of two or more electronic devices, which includes the interaction using social media platforms and applications like WhatsApp and WeChat. This study observes the instances of the code-mixing and code-switching occurrences in the CMC between USAS' English Language Department members. The data collected is analysed to determine the pattern and the factors influencing the mixing and switching to happen. The analysed CMC data is derived from the text message conversations of the Department's WhatsApp group over the span of 16 days; of the heaviest traffic use. This study also examines the languages (and derivatives) used in the code-switching, and explore the factors contributing to the manifestation.

*Keywords:* Computer-Mediated Communication, CMC, code-switching, code-mixing, bi/multilingualism

## INTRODUCTION

### Code-Mixing and Code-Switching

Code-mixing and code-switching are common in the bilingual and multilingual demographics. According to Wardaugh and Fuller (2021, p. 98), communication systems (like languages) used when talking to each other and in instances, two languages or codes combined within a sentence without changing the topic is considered as code-switching. Wardaugh and Fuller (2021, p.98) also used code-mixing and code-switching interchangeably with code-mixing mentioned as 'intra-sentential code-switching' (p. 106). Muysken (1997, 2000, 2020) also identified code-mixing as intra-sentential code-switching.

Muysken (1987, p.359) first used the term 'code-mixing' and defining it as the usage of two codes in one clause. In the *Code-Switching Processes: Alternation, Insertion, Congruent Lexicalization* published in 1997, Musyken redefined the 'mix of two languages in one clause' as code-switching, and introduced the three patterns of code-switching as alternation, insertion, and congruent lexicalization Muysken (p. 361). In 2000, Muysken revisit the three categories of aforementioned patterns in *Bilingual Speech: A Typology of Code-Mixing* and using it under the label code-mixing. He stated:

> *" I am using the term **code-mixing** to refer to all cases where lexical items and grammatical features from two languages appear in one sentence. The more commonly used term **code-switching** will be reserved for the rapid succession of several languages in a single speech event."* Muysken (2000, p.1)

Then in 2020, Muysken reverted back to using code-switching as the umbrella for the three patterns of proposed prior.

Some other key references of the theoretical frameworks on the matter are by Poplack, Gumperz, Romaine, and Muysken. This paper is focusing on Muysken's framework as the main point of reference, supplemented by other references that supports the theory. As for the definition used, this paper is referring to Muysken's model as per the year 1997 and 2020 publication; 'mix of two languages in one clause' as code-switching.

Code-switching is the use of multiple languages, varieties, or styles by a speaker within an utterance or discourse, or between various interlocutors or settings, according to Romaine (1992), as referenced by Wibowo, Yuniasih, and Nelfianti (2017). Code-switching is often used to express different social identities, to convey different meanings, or to simply make conversation more efficient. For example, a speaker might switch to a different language to address a person from a different language group, to express a particular emotion, or to use a word or phrase that is not available in their first language. In other words, code-switching refers to the use of several linguistic codes—languages, dialects, and styles—during conversations or in different contexts, contingent on the audience. Depending on the situation and the person they are speaking to, speakers modify their language.

In code-switching, it involves the integration of elements from different languages within the same sentence, resulting in hybrid utterance or sentence. For example, a the interlocutor might say, "I'm going to the *kedai* (translated: 'shop') to buy some *nasi* (translated: 'rice')." This utterance involves the mixing of English and Malay within the same sentence.

Conversely, in code-mixing there is a clear and distinct switch from one language to another. It refers to the alternation between two or more languages at the sentence level, often triggered by situational factors like audience, topic, or speaker intent (Myers-Scotton, 1997). For example, the interlocutor might say, "I'm going to the store? *Nak kirim apa-apa* (translated: 'Anything that I can get for you')?" This utterance involves a switch from English to Malay at the sentence level. To be more precise, grammatical rules limit code-mixing and it is intra-sentential.

The key difference between code-switching and code-mixing is that code-switching involves the alternation of two or more languages within the same sentence, while code-mixing involves the combination of elements of two or more languages at the sentence level. As per mentioned prior, this definition is based on Muysken (1997, 2020).

A number of studies had analysed the motivation and discourse function of code-switching and code-mixing. However, the data of these studies were primarily taken from face-to-face spoken conversation. A majority of code-mixing and code-switching theoretical frameworks are based on spoken data. Due to the technology wave, written communication has become more prevalent in everyday communication in both professional and social setting due to its real-time factor, thanks to the advancement of technology. The format has also varies to become more fluid and resembling more of a spoken conversation following the real-time technology.

**Computed-Mediated Communication (CMC)**

The usage of Computed-Mediated Communication (CMC) is now one of the most popular way of workplace communication for one-way communication (e.g: channelling of information, announcement, reminder, etc.) and two-way communication (e.g: discussions, decision-making, etc.). As CMC is usually done is a written format, the majority of code-switching theoretical frameworks is being challenged as this particular way of communication no longer conformed to these frameworks as it is in different form despite it resemblance to the spoken language.

**Research Questions**

The study is aimed at investigating the pattern and the factors influencing the code-switching to happen in the chosen CMC setting. Following are the research question(s) to be addressed in order to meet the aforementioned objective(s).

1. What are the languages/languages derivatives used in the CMC code-switching and code-mixing?
2. What are the factor(s) that influence the code-switching and code-mixing?

**METHODOLOGY**

The study focused on one CMC genre which is the WhatsApp group conversation of Universiti Sultan Azlan Shah (USAS)'s English Department. This method is the most commonly used channel of communication of the department; for both formal and informal content (i.e official and social setting).

**Participants**

The group selected for this study is based on the bilingual background, as the majority of the group taught English (L2) with a background of Malay language as their native language (L1). It is pertinent to understand of when and where do the subjects code-switched and code-mixed to get their message across. The outcome of this study could be emulate in the classroom teaching, to identify the factors that can be most favourable for a certain language to be used in particular settings.

The group is made of 26 English Language Department members that are consisted of 2 administrative staff, 3 academic staff teaching General Studies subjects, and 21 academic staff teaching English subjects.

**Analysis**

Qualitative approach is used in this study for data collection, complimented with literature review.

**Procedures**

The group conversation had been compiled over 16-day period; before the English Language Carnival commencement organized by the Department. The specific timeframe was selected due to the factor of the highest conversation traffic between the members compared to other given time. The conversation for the selected timeframe had been copied from the WhatsApp application into a Word document compilation to be analysed. A total of 1051 text messages amounting to 12,448 words were collected for the analysis. The data will be presented to illustrate the prevalence of code-switching and code-mixing in the conversation(s).

**RESULTS**

**Data Analysis**

Initially, the study started as a code-switching analysis and the texts were categorized into full-Malay, full-English, and code-switching categories. However, as the sorting progressed, four more categories were added; code-mixed data, emojis/emoticons/expressions, Manglish (Malaysian English colloquialism), and neutral.

**Table 1: Categories of text messages based on language usage**

| Text categories | Number of texts | Percentage (%) for each category's usage |
|---|---|---|
| Code-switching | 335 | 31.8 |
| Full-English | 312 | 29.7 |
| Full-Malay | 268 | 25.5 |
| Emojis/Emoticons/Expressions | 58 | 5.5 |
| Neutral | 43 | 4.1 |
| Code-mixing | 30 | 2.9 |
| Manglish (Malaysian English) | 5 | 0.5 |

**Table 2: Samples of text messages based on language usage**

| Text categories | Aspect / Indicator | Sample sentence from analyzed texts |
|---|---|---|
| Full-Malay | Text fully in Malay. | *Semakan boleh dibuat pada 8hb.*<br><br>(Translation : Follow-up could be made on the 8th) |
| Full-English | Text fully in English. | We are going to have (a) meeting this coming Friday. |
| Code-switching *Code-alternation within a single utterance* | Insertion (INS) *Embedding word(s) of two or more languages or language varieties within a single utterance* | I already told him *semalam* the layout *untuk* FITS.<br><br>(Translation : I already told him *yesterday*, (on) the layout *for* FITS. |

| | Alternation (ALT) *Embedding longer phrase(s) of two or more languages or language varieties within a single utterance* | Friendly reminder ,*mohon hantar semula borang peralatan kepada* ** before tomorrow.  (Translation : Friendly reminder, *please return the Appliances Application Form* to ** before tomorrow.) |
|---|---|---|
| | Backflagging (BFL) *A sub-type of alternation; embedding L1's pragmatic particle in the utterance* | Going to be crowded *lah* |
| | Congruent lexicalization (CLX) *Insertion-like style-shift and variation, where grammar and lexis of L1 and L2 interacted* | <u>Picture first</u> *bahagian depan...*  (Translation : <u>The first picture</u> should be on the front) |
| Code-mixing *Intra-sentential code-alternation/ at sentence level* | Tag switching / extra-sentential *Adding a word or phrase from another language or language variety at the end of an utterance* | Only three groups affected? Sure....*yang lain*? |
| | Inter-sentential code-switch (Malay-English-Malay) *Switching between languages or language varieties at the end of a sentence/clause* | I'm saying this to myself as well...*Kita kena muhasabah diri...*  (Translated : I am saying this to myself as well. We need to reflect upon ourselves) |
| Emojis/Emoticons/GIF/Meme/ Expressions | Emoji/Emoticons symbols, GIF/Meme graphics and expressions | ,Hahaha 😁 😜 |
| Manglish (Malaysian English) | Malaysian English colloquialism | Orait |
| Neutral | Words that carry the same spelling and meaning across languages. | OK Insya-Allah |

## DISCUSSION

The switch and mix observed in the compiled CMC identified as a partnership between the Malay (L1) and English L2, while the usage of other languages (and derivatives) is observed as well. The formation of language mixing and switching are both affected directly and indirectly by the acquisition/possession of English as L2.

The highest text category is code-switching at 335 texts (31.8%), followed by fully English texts at 312 (29.7%), and fully Malay texts at 268 (25.5%). Code-mixing texts is at the second lowest occurence with 30 texts (2.9%)

### Factors Influencing Code-Mixing and Code-Switching

There are a variety of factors that can influence the use of code-mixing and code-switching. The analysis of the compiled texts observed that the factors are contextual, and identified as follows:

*The social context*: The code-switching and code-mixing are observed to occur in informal settings, such as informal discussion among colleagues on the organized event. The switch and mix manifestation of the L1 and L2 could be contributed to the bilingual background as well.

*The topic and content of conversation*: Certain topics, such as personal experiences or informal matters, are observed to be discussed code-switch and code-mix. Other topics, such as academic, professional matters, and formal announcements in the group are seen to be discussed and conveyed in English.

*The speaker's language skills*: Code-switching and code-mixing are likely to occur in this group as a majority of the interlocutors (especially the lecturers) are fluent in both of the languages they are using. However, even speakers who are not fluent in both languages can engage in code-switching and code-mixing, especially if they are motivated to do so.

**Role of Code-Mixing and Code-Switching in Education : Navigating Opportunities and Challenges**
Code-mixing and code-switching have important implications for education and society. In a world increasingly characterized by linguistic diversity, the educational landscape is shifting to accommodate the rich tapestry of languages that students bring to the classroom. Code-mixing and code-switching, once viewed as undesirable deviations from monolingual norms, are now recognized as powerful tools for language acquisition, cultural expression, and pedagogical innovation. For example, in multilingual classrooms, the mixing and switching can be used for elaborating explanation for students' better understanding of concepts, theories, and meanings. However, navigating the role of these linguistic practices in education requires a nuanced understanding of their potential benefits and challenges.

**Benefits of Code-Mixing and Code-Switching in Education**
Gleason (1961) as cited by Lai and Kuo (2006) stated that language is not simply just an extension of culture, but it is the embodiment of the culture itself. Language use and evolution are constantly moulded and altered by the connections with surrounding community and environment. In this case, the benefits of code-mixing and code-switching could be observed as follows:

*Scaffolding Language Acquisition*: Code-switching can act as a bridge for students learning a new language. By drawing upon their existing linguistic knowledge, they can grasp complex concepts explained in their native language and gradually transition to the target language. For example, a teacher might switch from English to Malay to explain a concept familiar in the latter language. Teachers can strategically code-switch to clarify concepts, provide emotional support, or highlight connections between languages (García, 2011).

*Fostering Cultural Identity and Pride*: Code-switching and code-mixing allow students to express their cultural identities and connect with their heritage languages. This can enhance their sense of belonging, self-esteem, and motivation to learn (Baker, 2011). Teachers can encourage students to share their linguistic repertoires, creating a classroom environment that celebrates diversity and values different ways of communicating.

*Enhancing Cognitive Development*: The mental agility required to navigate between languages can benefit students in various areas, including problem-solving, critical thinking, and executive function.

*Promoting Creativity and Critical Thinking*: Code-mixing allows students to create new linguistic expressions and explore the boundaries of language. This creative play can foster critical thinking and metacognitive skills as they analyze the linguistic choices they make and consider the impact of their language use (Cenoz & Gorter, 2015).

## Challenges and Considerations

A double-edged sword, heavy reliance of code-mixing and code-switching in English Language classroom especially could lead to issues. Some of the challenges and consideration on the matter are as follows:

*Equity Concerns*: Overreliance on code-switching can disadvantage students who lack proficiency in the dominant language, potentially exacerbating existing inequalities. Teachers must ensure balanced language use and provide additional support for students who need it.

*Teacher Training and Support*: Effective integration of code-switching and code-mixing requires teachers to be equipped with the necessary knowledge and skills. This includes understanding the linguistic principles involved, developing strategies for incorporating these practices into their teaching, and recognizing potential challenges and biases.

*Linguistic Purism and Stigma*: Negative attitudes towards code-switching and code-mixing persist in some educational settings. Teachers must advocate for the legitimacy of these practices and promote understanding among colleagues, parents, and the wider community.

*Standardized Testing and Assessment*: Standardized tests and assessments often prioritize monolingual norms, potentially disadvantaging students accustomed to code-switching and code-mixing. Educators need to advocate for fairer assessment measures that acknowledge and value the linguistic diversity of students.

## CONCLUSION

Code-switching and code-mixing are not simply deviations from monolingual norms; they are valuable tools with the potential to enhance language learning, cultural expression, and cognitive development in multilingual educational settings. Language use and its evolution are constantly moulded and altered by the connections with surrounding community and environment. Recognizing the benefits and challenges requires a shift in perspective, one that embraces linguistic diversity and celebrates the richness of communication that transcends language boundaries. Through intentional planning, effective pedagogy, and ongoing research, educators can unlock the full potential of these linguistic practices and create inclusive learning environments that empower students to thrive in our increasingly interconnected world. The study of this pattern and behaviour could later be expanded on how it influences lecturers' teaching approaches in English lessons.

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