THE USE OF CODE-SWITCHING ON TWITTER AMONG MALAYSIAN TEENAGERS

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KUALA LUMPUR

2019

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DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEFREE OF MASTER OF ENGLISH AS SECOND LANGUAGE

FACULTY OF LANGUAGES AND LINGUISTICS
UNIVERISTY OF MALAYA
KUALA LUMPUR

2019

UNIVERSITY OF MALAYA
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ABSTRACT

It is common for Malaysians to be bilingual or multilingual. Therefore, code-switching is a common phenomenon to occur in a conversation. This study was conducted in order to determine the types of code-switching and its language functions used in Twitter. This study was based on the tweets made by secondary school students from a boarding school in Malaysia. The types and the primary functions of the tweets were identified following Poplack's (1980) types of code-switching and Appel and Muysken's (2005) functions of code-switching. The findings showed that the majority of the code-switch occurrences were done intra-sententially. Besides, for both perceived and intended language functions, referential function is the most common among the participants. This study showed how language and code-switching were used in the social media. Besides, the present study also provided insights on which type of code-switching and their language functions so that proper measures could be taken. The findings of this study are not applicable to the general population as the number of the participants are limited. Due to time constraint, the interviews with the participants could not be carried out.

Keywords: code-switching, language functions

ABSTRAK

Adalah perkara biasa bagi rakyat Malaysia untuk memiliki kebolehan menguasai lebih dari satu bahasa. Jadi, fenomena perlaihan-kod merupakan sesuatu yang biasa berlaku di dalam perbualan. Kajian ini dijalankan untuk melihat jenis peralihan kod dan fungsi bahasa setiap kod yang dialih di dalam Twitter. Kajian ini dijalankan berdasarkan "tweet" yang dilakukan oleh pelajar sekolah menengah dari sebuah sekolah berasrama di Malaysia. Jenis dan juga fungsi utama "tweet" tersebut adalah berdasarkan Poplack (1980) jenis peralihan kod dan juga fungsi bahasa peralihan kod oleh Appel dan Muysken (2005). Dapatan kajian menunjukkan peralihan kod berlaku secara "intra-sentential". Selain dari itu, fungsi bahasa utama yang telah dijumpai di dalam kajian ini ialah fungsi "referential". Disebabkan bilangan peserta kajian yang sedikit dapatan daripada kajian ini tidak dapat diaplikasikan kepada populasi awam. Selain itu, disebabkan kekurangan masa, temubual dengan peserta kajian tidak dapat dilakukan untuk mendapatkan maklumat yang lebih tepat berkenaan dengan fungsi bahasa untuk setiap peralihan kod yang dijumpai.

Kata kunci: peralihan kod, fungsi bahasa

ACKNOWLEDGEMENTS

I would first like to thank my supervisors Dr. Chew Shin Yi and Dr. Ng Lee Luan of the Faculty of Language and Communication. They consistently allowed this paper to be my own work, but steered me in the right the direction whenever they thought I needed it. I must also express my very profound gratitude to my parents and family members for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. Not to forget, my friends; Eleen and Nazri whom had helped me whenever I needed them. Finally, to my lovely wife, Aida Adlia for providing me the endless emotional support throughout the course of completing the program. This accomplishment would not have been possible without them. Thank you.

Author,

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CHAPTER 1: INTRODUCTION

Code-switching usually occurs in a bilingual or multilingual setting where a speaker has the ability to communicate in more than one code. In 1974, Hymes had defined that code-switching is a term used for when a speaker is alternating the use of multiple tongues, or even speech styles. In 1972, Fischer had used the term "intra-sentential code switching" in defining the phenomenon where a speaker is using more than one language in an utterance. Muysken (2002), in addition, made a claim that both code-mixing and code-switching terms had been used interchangeably by some scholars. In this research, the term *code-switching* will follow Hymes' (1974) definition as he stated that code-switching is the occurrence when multiple languages are used in one utterance.

Students nowadays are living in the digital age where they are defined and shaped by technology. Shafie and Nayan (2013) stated that students' lives outside of the classroom had always been ignored by their educators. Students in the digital age spent most of their time online, surfing the Internet and also social media sites, therefore, the language production occurred in the social media sites can be considered as the most authentic production made by the students. This is supported by Pairveen and Aslamm (as cited in Shafie and Nayan, 2013) where they had found in their study that the participants will switch language accordingly because of habitual expressions, making it an authentic language production. Therefore, educators can consider to "evaluate" or pay close attention to students' lives outside of the classroom which is their online activities as it has been neglected (Shafie & Nayan, 2013). As Das (2013) stated that the non-native speakers tend to avoid using their own language and tend to move from one code to another, by looking at the types and reasons behind the occurrence, it might provide additional insights so that this could be used in constructing new language learning

strategies as according to Baker (2013), when students use technology in the classroom, they remake the educational landscape.

Malaysia is a multiracial country. Other languages are also spoken in Malaysia even though the national language of Malaysia is the Malay language. The multilingual status of Malaysians has contributed to the existence of *Bahasa Rojak*. Baskaran (2005, p.18 & 37) had said "after almost two centuries of nurturing and over four decades of nursing, the English language in Malaysia has developed to become a typical progeny of New Englishes where the lexicon of Malaysian English has a profusion of local terms with characteristics that warrant their presence in the system". Shafie and Nayan (2013) defined *Bahasa Rojak* as the combination of multiple languages where only one language acting as a base such as Manglish (Malaysian English) where certain local phrases are combined with English words, for example: "Hey, I'm bored, let's go *makan* (*makan* is "eat" in English)". Therefore, investigating the occurrence of this language combination in social media sites might be able to help educators and scholars to better understand the nature of code-switching. This is because Karadhakar (as cited in Novianti, 2013) argued that social media provides the users with freedom to do or write whatever they want, therefore, language production used in social media might be the most genuine production made by the learners.

In bilinguals or multilinguals context, whether formal or informal situations, it is known that code-switching is common in conversations between interlocutors (Dayang, 2007), for instance official meeting, family dinner, and even a normal conversation between two individuals. According to Appel and Muysken (2005), the "switching phenomenon is not isolated, but it is the central part of any bilingual discourse". This is

exemplified in Malaysian context. It is known that Malaysia is a multiracial country and Malaysians possess the ability to speak in more than one language because of the linguistic landscape of Malaysia (Asmah, 1992). This results in most of the people in Malaysia need to choose an appropriate code to accommodate their conversations and this study will provide the language functions and the types of switching which occurred in social media in order to shed some light on the occurrence of code-switching in Malaysia.

Segregating the social media from the students nowadays is inevitable as it plays a big role in their lives. Even when they are sharing links, pictures or commenting in others' posts, they are engaging with each other. According to Baker (as cited in Halim and Maros, 2014) he pointed out that the students are becoming experts in developing a sense of Internet presence by knowing how to use the basic and complex functions when being on the social media sites. When discussing about social media, *Facebook* often comes up first, this is due to it being the first social media platform that surpasses the one (1) billion monthly active users (Statista.com, 2017). The situations are different when it comes to the younger generations, as it was discovered by Wired.com (2015) in an article on teenagers' perspective of social media. It is found that the notion of *Facebook* is no longer relevant or *dead* to them. The idea is seen as an awkward family dinner party that they cannot leave (Wired.com, 2015). As for *Twitter*, Molla (2016) stressed that it plays well with all sorts of media as it provides broader news content than *Facebook* and it allows the users to follow news update at a glance (Bloomberg.com).

Hence, *Twitter* is selected in this research because according to Pew Research Centre (2010), the number of *Twitter* users from the age of 15 to 29, which is the targeted age

group for this study, is 7% higher than *Facebook*. Thus, by studying the occurrence of code-switching on *Twitter* platform, it would generate new insights to the linguists and educators to understand the nature of code-switching. Furthermore, the rate of *Twitter* users in Malaysia is increasing each year. The statistics can be obtained from Statista.com which is a website that provides statistical forecast. It stated that in 2014, there were only 1.4 million *Twitter* users in Malaysia and in 2017 the numbers had increased by 700000. The website had also forecasted that in 2019, there will be around 2.4 million *Twitter* users in Malaysia. Since the statistics showed the number of users in Malaysia is increasing, this proves that *Twitter* is a landscape that is worth studying.

1.1 Statement of Problem

Code-switching is likely to occur when a speaker can speak two or more languages. Baron (2009) and English Spelling Society (2010) had stated that code-switching in computer-mediated communication (CMC) is not beneficial in term of language development where they found that the participants are making errors in spelling and grammar consciously but did not bother correcting it. Nevertheless, Bergs (2006) and Tagliamonte and Denis (2008) stated that the phenomenon is beneficial because they found that the participants in their studies were exhibiting creativity in experimenting with different language variants online and the combination of colloquial features with standard register in their utterances.

Since there have been opposing arguments on whether code-switching is beneficial or not, it is important for this phenomenon to be investigated. This research will explore on the language functions and the types behind the occurrences of which were mostly done by the participants. This is to understand the reasons behind the participants' use of code-

switching. A better understanding of this phenomenon may help the educators to strategize their teaching methodology and strengthening their teaching content in the classroom.

Nevertheless, almost all the students of the younger generation are exposed and their lives revolve around social media platforms. Such phenomenon is either beneficial or harmful towards the students' language production. Junco, Elavsky and Heiberget (2013) considers social media as a diverse platform where the use of informal and phonetic spelling is seen across the Internet. As Karadhakar (as cited in Novianti, 2013) mentioned that students' online language production is the most genuine. It is important for educators to understand the students' use of language in social media. Since social media is a part of students' life nowadays, by looking at this, students' usage of English language could be observed closely and it could also enhance the students' mastery of the language.

1.2 Research Purpose and Questions

The purpose of this research is to look at the types of code-switching that is generally done by the participants and to look at why the students have chosen to code-switching while using *Twitter*. Specifically, this study aims to answer the research questions as shown below and the framework is further explained in *Chapter 2* and *Chapter 3*.

1. Which type of code-switch occurs most frequently on Malaysian teenagers' *Twitter*?
2. What are the perceived and intended language functions of the code-mixed *Twitter* post?

The first research question aims to explore the types of code-switching that occurred most frequently. In order to provide answer for this question, Poplack's (1980) framework of types of code-switching (please refer to Chapter 3.4.1) was utilized in this study. All the participants' samples were analysed using Herring's (2004) Computer-Mediated Discourse Analysis (CMDA) approach where the samples were viewed and coded, then grouped into the most suitable type based on the framework provided by Poplack (1980).

The second research question was set to analyse the language functions and it will be divided into two parts; perceived and intended language functions. The completion of the first part is achieved by implementing Appel and Muysken's (2005) functions of code-switching as the theoretical functions in answering the question. Appel and Muysken (2005) claimed that there are six functions of code switching; referential function, expressive function, directive function, phatic function, metalinguistic function and poetic function. The second part of this question seeks to analyse the intended language functions made by the participants. In order to answer this part, an open ended question was included as part of the questionnaire in order to answer the question.

1.3 Research Significance

The study of this topic is significant as it brings new insights to the current literature in code-switching due to the localized context of Malaysian youth. Furthermore, by conducting this research it enables the researcher to understand the language functions of each code-switched utterances. This new information on the use of code-switching can pave a way for educators to utilize and incorporate it as part of their teaching methodology. Shafie and Nayan (2013) stated that since Malaysia is a multiracial country, most of the Malaysians are multilinguals where they possess the ability to switch between

two or more codes. It is also being affirmed that code-switching is likely to occur in an online environment. Karadhakar (as cited in Novianti, 2013) pointed out that the students' language production is the most genuine production when it comes from an online environment, therefore, the findings of this study will help educators to understand their students' online behaviour better to further strategize teaching and learning process.

Ahearn (as cited in Shafie and Nayan, 2013) stated that technological tools provide the students with a lot of advantages, for instance, students can work at their own pace. Therefore, *Twitter* is one of the technological tools that could provide learning opportunities to the students. On top of that, Shafie and Nayan (2013) further stated that students' lives outside of the classroom have always been neglected by the educators. Therefore, the data derived from this study might be helpful in term of providing additional information on how the students' online activities could be incorporated into language learning.

In addition, the findings of this research are important as it demonstrates how bilinguals switch between codes in social media. Observing the occurrence of code-switching is important as it provides insights on how Malaysian bilinguals in secondary school are using *Twitter* as a part of their social media life. The present study also provides findings on the actual use of English language on social media. Besides, knowing students' social media activities might be helpful in assisting the teaching and learning process by observing their language production on social media sites, the detection of students' errors could be done so that educators could prepare lessons based on the students' weaknesses.

1.4 Limitations

This research has several limitations. Due to the small number of participants involved in the research, which is 50 Form 4 students, the findings from this study cannot be generalized to the general population. Moreover, the participants are from an all-boys school. The data collected from this study might produce a different result if both genders are present and it might be more helpful in term of generalization. On top of that, gender comparison is not present in this study. Lastly, the data was collected from the *Twitter* platforms and the findings may not be applicable to other social media platforms.

CHAPTER 2: REVIEW OF RELATED LITERATURE

The impact of computer-mediated communication (CMC) has been debated by scholars worldwide. Based on past studies, some scholars find that CMC will leave an undesirable impact on young people's formal written language. In a survey conducted by Lenhart, Arafeh, Smith and Macgill (2008), the participants are fully aware that the informal form of writing does appear in their academic writing and the concept of academic writing is not an alien concept to them. The same thing had also been mentioned earlier by the English Spelling Society (2010) and Baron (2009) where they had found that their participants are making grammatical and spelling errors, but they did not bother to correct it as they said that there will be no consequences regarding their errors.

Computer-mediated communication also has its positive impacts on students' creativity. This is illustrated in a study carried out by Bergs (2006) and found that younger users were using a more diverse language alternatives online than in real life communication. This claim is also supported by Androutsopoulos' (2006) where it is discovered that computer-mediated communication offers the users with rich linguistic diversity. Moreover, the findings in Tagliamonte and Denis (2008) indicated that the teenagers that participated in their study are able to combine the colloquial features of language with standard register in their response. Although previous studies had shown both positive and negative impacts of computer-mediated communication on students' linguistics abilities, a more comprehensive research in this field should be further investigated in order to minimize the said negative impacts. Additionally, there is an issue related to whether the communication takes place in real time, i.e. synchronous CMC versus asynchronous CMC. In order to address this issue, this study intends to observe *Twitter* which is a combination of both synchronous CMC and asynchronous CMC.

Simpson (2002) defined CMC as human communication that occurs by using computers. It is further stated that synchronous CMC is an interaction that takes place in real time, while asynchronous CMC occurs when both users are not online at the same time, and the interactions do not occur simultaneously (Simpson, 2002). *Twitter* as a preferred social media by students nowadays provides the users with both synchronous and asynchronous CMC and this current study is intended to look at both types of CMC and to identify the presence of types of code-switching and its language functions.

2.1 *Twitter* as a Social Networking Site

Twitter is a social network site created in March 2006 and rapidly gained worldwide popularity when it was launched in July in the same year (*twitter*.com, 2012). The site posted 340 million tweets, authored by more than 100 million users. This social media site is all about broadcasting short, burst messages, hoping that the messages are useful to others (Gil, 2017). *Twitter* had also introduced the term 'tweeting' for the act of sending or sharing opinions to followers. This microblogging site is also a medium for the users to discover interesting people online and following their updates (lifewire.com, 2017). Therefore, *Twitter* falls under social networking sites as Boyd and Ellison (2007) defined social network sites as web-based services that provide the medium to create a profile, befriend with somebody else and view the connection that was made by the users within that system.

The word "Tweet" has been accepted by the Oxford English Dictionary as an official word of English in June 2013 (Digitaltrends.com). 'Tweet' is the post made on the *Twitter* application and also the chirping sound made by a small bird (Oxford English

Dictionary). Tweeting is computer-mediated communication because as the users tweet, they can also interact with other users by replying to each other and also 'retweet' the messages to his or her followers, thus, communication between the users takes place. Herring (2001), stated that computer-mediated communication happens when computers are used as a medium of interaction between one another. This includes any asynchronous and synchronous web-mediated communication (Shafie and Nayan, 2013) and *Twitter* is the combination of both types of CMC.

Twitter has been one of the popular social networking sites since then. Despite the fact that it provides the users with the ability to interact, Birch (2013) highlighted that the important part of learning with *Twitter* is the way it can encourage the engagement with "borderless" topics where it can be beyond the physical (or virtual) classroom. In addition, Junco, Elavsky and Heiberger (2013) as cited in Alias (2013), affirmed that the public and diverse nature of *Twitter* is one of the reasons why students and educators are enthusiastic to engage with the site. On top of that, another quality that makes *Twitter* a unique platform is its immediacy (Balam, 2017). He also added that every update, reports and comments are available for the users almost in real time. This means that users are able to see any new tweets in an orderly manner as soon as the other users updated theirs. Therefore, it is not difficult to grasp the fact that *Twitter* is popular among teenagers nowadays. Due to the popularity of *Twitter* among teenagers, the present study will look at the language production of the participants' tweets in order to understand the code-switching phenomenon according to the research context.

2.2 Code and Code-Switching

In today's society, code-switching is often produced by bilingual or multilingual. Li Wei (2008) carried out a survey where the researcher discovered that there are 193 countries that are multilingual around the world and 6000 different languages were spoken. With the emergent of new technologies and the globalization era, the language borders become smaller resulting in many researchers to be inclined to study the phenomenon in different contexts (Yajing, 2013).

Nishimura (as cited in Wardhaugh, 2010) found a lot of Nisei (term used for the second generation of Japanese Americans) in Toronto is likely to speak Japanese with the native Japanese, however, they will use English when addressing themselves to Nisei. Besides, the Nisei will use a mixture of English and Japanese language when they were involved with a group that consists of Japanese and Nisei at the same time. Wardhaugh (2010) continues by claiming that most speakers who switches between codes may not be aware that they have switched to different codes while communicating. This shows that code-switching is one of the tool to accommodate conversations.

According to Wardhaugh (2010) the term "code" comes from the information theory where it treats "code" as a system that might elevate and help people to have a better communication between them. He continues by defining code as a system of language or dialect used by people to communicate with others (p.84). In other words, a code is any language available that was used in a conversation. The claim mentioned was further strengthened by Romaine (1995) where he states that a code is not only limited to the language used but also to the language variations such as various styles of that language. In order to define it in a wider sense, Hudson (1996) says that codes can be every available

language used by people to communicate. In this study, the codes that are commonly used by the Malay participants are Malay and English languages.

Regarding the definition of the term code-switching, numerous scholars came up with their own definition. Firstly, John Gumperz defines it as "the juxtaposition within the same speech exchange of passage of speech belonging to two different grammatical system or sub-system". Hoffmann (1991) defines it as a process which involves the alternating of two language terms within a dialogue or conversation. This is supported by Dayang (2007) where it is found that code-switching occurs within a sentence by "the alternating use of two or more languages". As previously mentioned, this research adopts Hymes' (1974) definition of code-switching where it is defined as a term used when a speaker is alternating the use of multiple tongues, or even speech styles. This shows that in order to define code-switching, the scholars include the involvement of mixing or adding one or more languages or styles in a conversation.

2.3 Poplack's (1980) Types of Code-Switching

In the accounts of the phenomenon of code-switching, many scholars have come up with a framework regarding the types of code-switching. Blom and Gumperz (1972) came up with two types of code-switching which are metaphorical and situational switching, however, it was criticised by Auer (1998) due to the lack of explanation of the term "situational". Another framework was proposed by Poplack (1980) that is widely used by researchers (MacSwan, 1999; San, 2009; Green & Wei, 2014). Thus, this framework is replicated in this study because Poplack's (1980) model distinguishes between code-switching and borrowing (Winford, 2003). Winford (2003) also affirmed that this model is the best-known theory regarding the underlying grammar of code-switching where it says that an utterance of two codes cannot be considered as code-switching when it

happens between a lexical stem and bound morphemes. Poplack's (1980) model classifies three different types of code-switching; tag-switching, inter-sentential switching and intra-sentential switching.

Tag-switching is when tags are used in a sentence, intra-sentential switching occurs when a switch occurred within a sentence and inter-sentential switching is when a switching occurred between two or more sentences (please refer to section *4.2 Types of Code-switching*). MacSwan (1999), San (2009) and also Green and Wei (2014) had conducted their studies by using this framework as their guideline in determining the types of code-switching occurred. This research aims to expand the current literature of code-switching by studying the phenomenon among Malaysian students. This research is conducted by adopting and following Poplack's (1980) framework.

2.4 Appel and Muysken's (2005) Functions of Code-Switching

When looking at the functions of code-switching, Appel and Muysken (2005) had come up with a framework by stating that there are six different language functions. The definition of the 6 language functions is defined by Appel and Muysken (2005) and shown below:

1. Referential function: A speaker shifts to a different code because of the disability to use a particular word.
2. Directive function: Involves the receiver of the message directly.
3. Expressive function: Code-switching done in order to emphasize a point
4. Phatic function: Code-switching done to shift focus towards a more important information
5. Metalinguistic function: Code-switching that involves a direct or indirect comment by presenting quotes by others

6. Poetic function: Switching occurred that involves a speaker inserting jokes and puns to avoid taboo phrases.

Appel and Muysken's (2005) framework on the language functions has covered enough ground in helping researchers like Choy (2011), Yankova (2013) and Malek (2015) to achieve their research objectives. This framework is also helpful in term of the current study as it can provide a clear guideline in term of analysing the language function for each of the code-switching data collected Therefore, this study aims to look at the language functions by following the Appel and Muysken's (2013) functions of code-switching.

2.5 Past Research

There has been a lot of argument pertaining to the use of colloquial term, abbreviations and code-switching in CMC. Crispin Thurlow (2003) conducted a study on 159 first year Cardiff University students in Wales. The focus is to analyse the text messages (SMS) sent by the students and looked at their linguistic form and the communicational function. The findings of this study discovered that the most frequent communicational functions of the text messages were friendship maintenance, salutary and social arrangement.

The studies of code-switching had been carried out since the early 1970's. Auer (1998) indicates that speakers' choice of language in a conversation is influenced by numerous factors. The factors influencing the speakers to code-switch is shown in Table 2.1 below.

Table 2.1: Factors affecting the speakers' choice of language (Auer, 1998)

Factors Affecting The Speakers' Choice Of Language (Auer, 1998)
Topic
Settings
Relationship between participants
Community norm and values
Societal, political and ideological developments

The study in code-switching had been carried out long before Auer (1998) came up with his framework. Blom and Gumperz (1972) found that the people in the fishing village in Hemnesberget in Norway switched from standard Bokmal to Ranamal which is the local dialect depending on the social context and the topic discussed. This finding has resulted the beginning of the aforementioned situational switching that involves "a change in participants and/or strategies", and also the metaphorical switching where there is a shift in the topical emphasis of the conversation (Blom & Gumperz, 1972, p.409).

Halim and Maros (2014) cited San's research on the use of code-switching on 20 Macao people at aged between 21 and 26. The participants of this study are all university students and graduates. The study indicated that Chinese bloggers will switch the use of language from English to Chinese due to some of the words and expressions that do not have an accurate English translation. This shows that the blogger chooses to switch to English in order to preserve the meaning of the expressions, as well as to abide by the community norm and values. The findings of this research discovered that inter-sentential code-switching is the most common type that is likely to occur (San, as cited in Halim and Maros, 2014). For example:

(1) 我都唔會 give any comments and just concentrate on what I should do.

Translation: *I do not know*, give any comments and just concentrate on what I should do.

(2) 好的...I'm not a child anymore!! I can make it!!

Translation: *Okay*... I'm not a child anymore!! I can make it!!

This is in line with the claim made by Montes-Alcala (2007) as he pointed out that bloggers might switch to create a stylistic effect or to show their competence in the use of multiple languages by switching between two or more codes. They had also come up with the concept of free-switching where they found that in asynchronous CMC, users switched for no apparent reason or it comprises the combination of various other functions. Ramlee and Wong (2009), suggest that code-switching strategies were used by bloggers to communicate in a more informal manner with their multilingual readers and to strengthen the camaraderie and kinship in the context of the Malaysia blogging community, whilst Ong (2016:275) found that amongst other reasons, 'code-switching' was used to express thoughts and feelings that were difficult to put across in English without either distorting the meaning or causing misunderstanding'.

Instances of Swedish-English code switching had been studied by Urback (2007). The study was conducted by looking at code-switching activities in an online discussion forum "*Motheringdotcommune"*. The main focus of the forum is linked to providing the visitors with alternative methods of children's upbringing. There are seven female participants altogether. From the study, the researcher found the presence of code-switching in the discussion forum. The aim of this study is to look at the types of code-switching occurred and the functions of code switching. The study showed that among all of the participants,

intra-sentential switching is the most common occurrences in the discussion forum. The example from Urback's (2007) study can be seen below:

> A*: Det är väldigt svårt att hitta en riktig* "community" *tycker jag, en grupp med flera som*
> *tycker och tänker ungefär likadant*
> [It is very hard to find a real "community" I think, a group with people that has similar opinions and thinks in the same way] oj [oh], now I am rambling! Interesting to meet you.
>
> (Urback, 2007)

From this example, it can be seen that intra-sentential switching had occurred. According to Urback (2007), the participant added English word and phrase in the middle of a Swedish sentence and this indicates an intra-sentential switch (Romaine, 1989). Urback (2007) also concluded that all seven participants are familiar with the two languages mentioned (Swedish and English). Since the gender of the participants is all female, Urback (2007), also mentioned one of the gap exists in that study which is the inability to make gender comparison.

Looking back at San's (2009) and Urback's (2007) studies, both studies produced different results where San (2009) found that the most common type of code-switching is inter-sentential switching while Urback's (2007) study found that intra-sentential switch is the most common among his participants. This proves that the most common type of code-switching is not objective in nature and the results are influenced by the environment and the languages that the participants use because in some languages, English utterances might be suitable to be inserted within the sentences while some are more suitable to be inserted in between sentences. Thus, the objective of this research is to look at the types of code-switching and its functions in a context that is different from both Urback (2007) and San (2009), which is in the *Twitter* platform.

Aside from *Twitter*, various account of literature revolves around other social networking sites. Pairveen and Aslamm (2013) analysed the occurrence of code-switching in *Facebook*'s statuses and messages posted by the users. The findings of this study indicate that the speakers' ability to converse in more than one language plays an essential role in their interaction. This is because the participants' connection in their *Facebook* profile consist of people who can communicate in more than one language. In addition, it is found that the lack of facility, lack of register, and habitual expressions are the top reasons of why the participants had switched between two or more codes.

On the contrary, the studies conducted by Hidayat (2012) and, Das and Gamback (2014) that focused on the occurrence of code-switching exhibit an entirely different results. Hidayat (2012) discovered that most of the code-switching in the study was done inter-sententially. Meanwhile, Das and Gamback (2014) carried a study investigating on the occurrence of code-switching in English-Hindi speakers on *Facebook* had found that the intra-sentential code-switching occurred the most in their study. Such differences in both studies may result from the variety of context used. Hidayat (2012) derived the data from the Indonesian *Facebook* users where the findings showed that inter-sentential code-switching occurred the most (59%) and 45% of the participants stated that lexical needs was the reasons behind the code-switching occurrences.

The study of code-switching has also been extended to a chatroom platform. Lin (2008) conducted a study by using Windows Live Messenger, one of the popular instant messaging platforms. The study was carried out in Hong Kong by observing 16 native Chinese university graduates. All the participants are from Hong Kong and have bilingual background. The objective of the study is to look at how computer and chatroom can

influence language choice and language pattern. The results from the study shows that the participants who mainly use English will switch to Cantonese whenever they would want to show solidarity with the others. Furthermore, some participants will switch the codes in order to avoid creating misunderstanding with the other participants. Nevertheless, this study did not focus at the types but only at the functions of code-switching.

While another researcher, Novianti (2013) conducted a study regarding the use of code-switching on *Twitter*. The study discovered seven language combinations and six reasons of the use of code-switching in the samples. The most frequent type of code-switching that occurred is the intra-sentential switching. She also found that lexical needs were the main reason why her participants switched between two or more codes. However, this study is looking at several language combinations whereby Indonesian-English is the most occurred switch but not Malay-English or English-Malay.

Sihombing (2014) claimed that *Twitter* is a medium where code-switching phenomenon can be seen. Throughout the study, it is found that *Twitter* users in Indonesia often switch languages in some of their tweets. Based on the research, it is discovered that the participants of the study find it difficult to convey their ideas using Bahasa Indonesia. As exhibited in the past studies, there are traces of evidence of code-switching in online platforms. Therefore, the study of code-switching in online platforms may provide new insights on the nature of online interactions and the optimization of these interactions in different contexts (Herring, 2004).

As we can see, most of the studies mentioned are focussing on the university students, university graduates and even mothers (Urback, 2007; Lin, 2008; San, 2009). The current study looks at a different age group of participants which is the secondary school students. On a different note, the previous studies were looking at the occurrence of code-switching in different type of CMC namely *Facebook*, online discussion forum, blogs and chatroom while the present study is focusing on the occurrence of code-switching on *Twitter*. Even though Novianti (2013) and Sihombing (2014) have studied *Twitter* as their preferred social networking site, both studies looked into code-switching between *Bahasa Indonesia* and English among Indonesian. The present study hopes to fill the gap by looking at code switching occurrence among Malaysian secondary students.

CHAPTER 3: METHODS AND METHODOLOGY

This study aims to examine the occurrence of code-switching in the participants' language production on *Twitter*. Therefore, the study focuses on the participants' tweets and replies. The acquired data is then analysed accordingly.

3.1 Data Collection

The research design of this study is Internet ethnographic (Androutsopoulos, 2011). The design was chosen because the study examines each of the participant's cultural aspect using *Twitter*. Internet ethnography was also known as cyber-ethnography and online-ethnography. Boellstorff et al. (2012) defined ethnography as a flexible and responsive methodology which is sensitive to emergent phenomena and emergent research questions, which is used to create an understanding of cultural behaviour. Therefore, Internet ethnographic research design is the study of communities and cultural behaviour. Since the present study is looking closely at communities and cultural behaviour through computer-mediated social interaction, according to Androutsopoulos (as cited in Yajing, 2013), Internet ethnographic is the best research design to be employed.

The present study uses *Twitter* as the social networking site to collect the data. *Twitter* is asynchronous computer-mediated communication where the users can share their thoughts on something without expecting immediate response from the other users. As mentioned previously, *Twitter* rapidly gained worldwide popularity among Internet users according to *Twitter*.com where there are 340 million tweets that had been posted by more than 100 million users in a day. There are 1.4 million *Twitter* users in Malaysia and the

numbers are forecasted to be increasing throughout the years whereby, in 2019, the number of *Twitter* users will reach 2.4 million (Statista.com).

The study only focuses on the tweets of Malaysian students which were posted by them on their own *Twitter* profile. These tweets can be made public by the owner which enable it to be seen by others. However, if some owners refuse to let other people view their tweets, the profile can be set into a private mode, thus, allowing only their followers to get access to their tweets. Therefore, the researcher had requested for permission to follow the participants by sending a "follow request" to the participants' *Twitter* accounts before collecting the data. This study focuses on the code-switching between Malay and English languages only. Since the new feature of *Twitter* allows the users to create a thread to deliver long messages that exceed the character limit, each of the thread is treated as separate tweets. The example of a thread is shown in figure 3.1:

Figure 3.1: Example of a thread

In figure 3.1, the user created a thread to share with her followers regarding one of her students in her school. This thread was taken from *Twitter* and had been *retweeted* by some of the participants of the present study. The thread was created by composing multiple tweets and was combined so that her followers can read everything coherently without having to go and look at her profile one by one. It should be noted that any replies and quote retweets received in each of the tweets are excluded from the data. This is because, even though the replies and quote retweets received were purely made by other users, when a user 'retweeted' it, it shows that the user also wants to convey the same message or tweet. Besides, any tweets that were written purely in Malay or English languages and name of which contain names of places are also excluded as they do not relate to code-switching.

On top of that, English words that were spelled in colloquial way such as "*Kemon"* which is the informal spelling of "come on" and the abbreviations of English words like "*smh"* for "*shaking my head*" are deemed as English words. In addition, each "retweet" from the participants' *Twitter* profile is also being considered as the participants' tweets as according to Lifewire.com (2017), a "retweet" is a repost of somebody else's tweet on the user's profile so that it could be seen by the user's followers. A retweet is different from a quote tweet as quote tweet allows other users to comment on any reposted tweets while a retweet is a repost of the same tweet by other users. Therefore, if the participants have any retweeted tweets on their profiles, it is being treated as their tweets. Out of all tweets collected that contain code-switching, the number of retweets found was below 20%. On top of that, each of the analysis and examples from the data collected is also being provided with relevant translations.

3.2 Participants

The method of selection for the participants of the present study is purposive sampling, which means that in order to be selected as a participant, each of them must meet certain criteria. There are 50 participants chosen for the present study. All of the participants are Malaysian Malay and English bilingual students of a public boarding school in Putrajaya.

The chosen boarding school is an all-boys' school and all of the participants chosen are 16 years old. The level of English proficiency for each participant is chosen randomly as the only important criteria to be met is owning a *Twitter* account. The students were placed in special classes called "Set" for the English subject and it was determined by their results in the previous examination. There are 4 sets altogether which are Set A, B, C, and D where Set A is the highest and D is the lowest. Furthermore, in this research context, their position in the English sets is not going to influence the results of this research. The information regarding their English sets is collected just for the sake of the participants' background information. It can be said that all of the participants possess similar cultural background. All of the participants are Malay and they use Malay and English language regularly as this can be seen on their *Twitter* timeline feed.

Table 3.1: List of participants

Participant	Age	Set	Period of Being a *Twitter* User
1	16	A	Less than 2 years
2	16	A	More than 2 years
3	16	B	1 year
4	16	B	Less than 2 years
5	16	A	Less than 2 years

Table 3.1, continued

Participant	Age	Set	Period of Being a *Twitter* User
6	16	C	More than 2 years
7	16	D	Less than a year
8	16	B	1 year
9	16	C	1 year
10	16	B	1 year
11	16	A	More than 2 years
12	16	D	Less than a year
13	16	A	More than 2 years
14	16	A	More than 2 years
15	16	A	More than 2 years
16	16	A	1 year
17	16	B	Less than a year
18	16	A	1 year
19	16	C	1 year
20	16	C	1 year
21	16	A	More than 2 years
22	16	A	More than 2 years
23	16	B	Less than a year
24	16	B	1 year
25	16	A	More than 2 years
26	16	C	Less than 2 years
27	16	C	1 year
28	16	D	Less than a year
29	16	B	Less than 2 years
30	16	A	More than 2 years
31	16	C	1 year
32	16	B	1 year
33	16	B	Less than 2 years
34	16	C	More than 2 years
35	16	A	More than 2 years
36	16	B	1 year
37	16	B	1 year
38	16	D	1 year
39	16	D	More than 2 years
40	16	C	Less than 2 years
41	16	A	More than 2 years
42	16	B	1 year
43	16	D	More than 2 years
44	16	B	Less than a year

Table 3.1, continued

Participant	Age	Set	Period of Being a *Twitter* User
45	16	C	1 year
46	16	D	Less than 2 years
47	16	A	More than 2 years
48	16	A	More than 2 years
49	16	B	1 year
50	16	B	More than 2 years

On top of that, one of the criteria needed for the participants is to own a *Twitter* account for more than 6 months. Out of all participants selected, majority (52%) of the participants had owned their *Twitter* account for more than 1 year and only 12% of the respondents owned their *Twitter* account for less than a year. This is to ensure that the tweet production made by them met the requirement for the current study which is at least 50 tweets as this study is looking at 50 most recent tweets made by the participants. As for participants that had owned their *Twitter* account for less than a year , their *Twitter* account will be checked first to ensure that they had tweeted for at least 50 times.

All of the participants possessed an adequate level of English language proficiency since they were required to achieve at least grade B for their PT3 examination. According to the PT3 examination's descriptor, the B grade shows that the student's language is largely accurate with some minor errors, the sentence structures are mostly varied and the vocabulary is wide enough and mostly precise. Up to the point where this study took place, all of them have had at least 9 years of learning English. This shows that, all the participants possessed the adequate level of language proficiency.

3.3 Data Collecting Procedure

The present study started by seeking consent from the Ministry of Education Malaysia. After submitting the required documents, the permission had been approved (refer Appendix 2). Then, the researcher approached the targeted school and asked for the school's permission to carry out the study from the school's management board. The school was also briefed regarding the objectives and the procedures of the present study. Next, the researcher set a meeting with a representative of the participants which is also a student which had been agreed upon beforehand. The purpose of the meeting is to brief the representative on the objective and the process of this research. Then, the researcher asked for the representative's help to make an announcement in order to look for the eligible participants that met the criteria needed. After that, the researcher had asked for the representative to set a meeting with all the participants according to their own availability in order to collect the data.

During the meeting, the researcher started by seeking for the participants' permission to conduct the research verbally and all of the selected participants agreed to be a part of this research. Then, the researcher was present the whole time to carry out the process of administering the Likert-scale questionnaire (refer Appendix 1). This questionnaire was adapted from San (2009) who have used the questionnaire to investigate the occurrence of code-switching in blogs among Macao people. This questionnaire was chosen because San (2009) successfully conducted his research by using this questionnaire and it was adapted by changing the context of the study; from changing the term "blog entries" found in the items to "tweets". After administering the questionnaire, each item on the questionnaire was further explained by the researcher in order to make sure the participants understand the questionnaire fully before answering it. In addition, the questionnaire consists of the participants' demographic information including their

Twitter username and also how long the participants had been a *Twitter* user. The researcher also explained that their anonymity will be preserved, and any written data collected from their *Twitter* and the questionnaire will have no impact on themselves. Figure 3.2 below refers to the overall flow of data collecting of the present study.

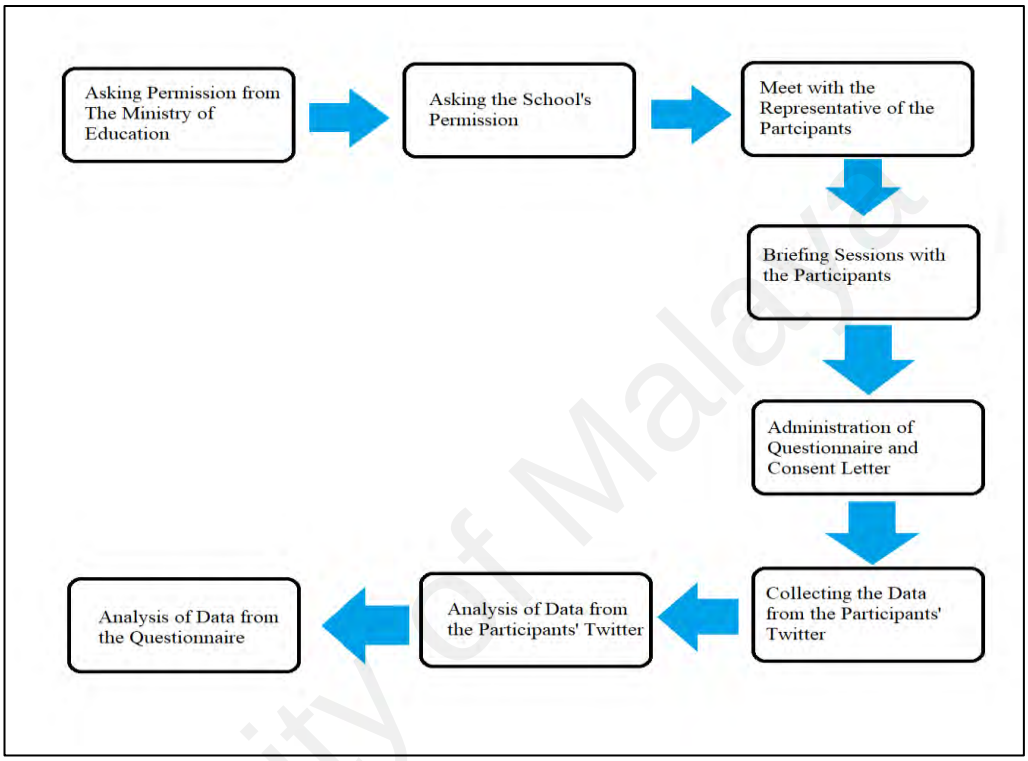


Figure 3.2: Flow of data collecting procedures

3.4 Theoretical Frameworks

In order to accomplish the objective and to answer the research questions of this study, two frameworks were used; Poplack's (1980) types of code-switching and Appel and Muysken's (2005) functions of code-switching.

3.4.1 Poplack's (1980) Types of Code-Switching

As mentioned in Chapter 2, Poplack (1980) had proposed a framework regarding the types of code-switching. This model is one of the strongest models since this model draws a clear line between code-switching and borrowing (Winford, 2003). The details of Poplack's (1980) model are discussed as below:

Table 3.2: Poplack's (1980) Types of Code-Switching

Types of code-switching	Definition	Example
Inter-sentential switching	Switch occurred at the sentential boundary where clause or sentences in another language were used after the first sentence	*Itula. Mama dah agak dah. Adik ni demam ni.* ***Pity you. Your voice also different already***. ***Translation***: That's why. I knew it. You are having a fever. Pity you. Your voice sounds different (Stapa and Khan, 2016).
Intra-sentential switching	Switch that occurred at clausal, sentential or even word level. This switching occurred within the sentence.	*I'll start a sentence in English* ***Y termino en espanol*** ***Translation***: "I'll start a sentence in English and finish it in Spanish" (Al-Heeti and Al- Abdely, 2016).
Tag-switching	Tags, interjection and fillers of another language added into the base language.	**Tags**:"*right*", "*kan*", "*ke*" **Interjection**:"*absolutely*", "*auchh*", "*aduh*", "*yay*" **Fillers**:"*uhh*","*umm*", "*hmm*"

Poplack's (1980) framework is used in this study to answer the first research question; *which type of code-switching occurs most frequently on Malaysian teenagers' Twitter?* This question aims to look at the code-switching types that occurred frequently and by using this framework as a guide, the answer to this question can be drawn.

3.4.2 Appel and Muysken (2005) Functions of Code-switching

In furtherance of looking at the language functions of code-switching, with reference to Section 2.4, the Appel and Muysken (2005) functions of code-switching is referred and each of the functions will be discussed below:

Table 3.3: Appel and Muysken (2005) Functions of Code-switching

Language Functions	Definition	Examples
Referential Function	When a speaker shifts to a less dominant code because of the lack of knowledge or ability to use a particular word. Also known as "topic-related" switching.	*Ujian alcohol telah dijalankan iaitu* **breath analyzer test.** (David, 2003)
Directive Function	Code-switching that involves the receiver of the message directly. Also known as "participant-related" switching.	"To all mothers out there, *Selamat menyambut Hari Ibu*!" **Translation**: To all mothers out there, Happy Mothers' Day
Expressive Function	Code-switching done to express and emphasize certain points in a code that is different than the dominant code. Also done to exhibit the diversity of the speaker's identity in a discourse.	"To all mothers out there, *Selamat menyambut Hari Ibu*!" **Translation**: To all mothers out there, Happy Mothers' Day! (Novianti, 2008)
Phatic Function	Code-switching done to change their tone to shift focus towards the important information conveyed. Any repetition regarding the message can also be considered as phatic.	"I like public holiday---假期" **Translation**: I like public holiday--- holiday (Yajing, 2013)

Table 3.3, continued

Language Functions	Definition	Examples
Metalinguistic Function	Direct or indirect comment on the language involved and commonly used to present a quote or speech by others.	"**No pain, no gain**. 太对了 „ **Translation**: No pain, no gain. Exactly. (Yajing, 2013)
Poetic Function	Switching occurred when the speaker is inserting jokes, puns and also poetic sentences to avoid taboo phrases.	*"... Moving the sun and stars,* ***Que vos vers experiment vos intenrions*** ***Et que la musique conforme***" **Translation:** Moving the sun and stars, May your worms (Appel & Muysken, 2005:120)

This framework was used as a guide in answering the first part of the second research question; *what are the perceived and intended language functions of the code-switched Twitter post?* Since this research question contains two parts (perceived and intended language functions), Appel and Muysken's (2005) framework is used as the framework in answering the perceived language functions while the data collected from the questionnaires is used to analyse the intended language functions of code-switching.

3.5 Data Analysis

In order to achieve the objectives and answer the research questions, the data collected were analysed both quantitatively and qualitatively. The first research question is purely quantitative as it involved the frequency count of each type of code-switching occurred and the second research question was divided into two parts; perceived and intended language function. The perceived language function was analysed by using thematic

analysis and the intended language function was analysed through the questionnaire, thus, frequency counting was involved. According to Cresswell (2007), mixed methods research is a methodology to conduct research that involves analysing and integrating both quantitative and qualitative research in a single study and was done in order to provide a better understanding of a research problem than either research approach alone, thus the present research adopted the mixed mode approach.

The first research question of the present study is "Which type of code-switching occurs most frequently on Malaysian teenagers' *Twitter*?" The process of answering the first research question is presented in Figure 3.3.

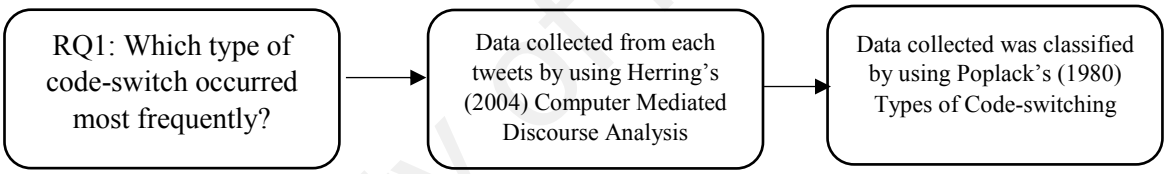


Figure 3.3: Flow of answering the first research question

As for answering the second research question; what are the perceived and intended language functions of the code-mixed *Twitter* post? The present study had separated this research question in order to provide a clear result for the perceived language functions and the intended language functions. Figure 3.4 illustrates the process of the data analysis:

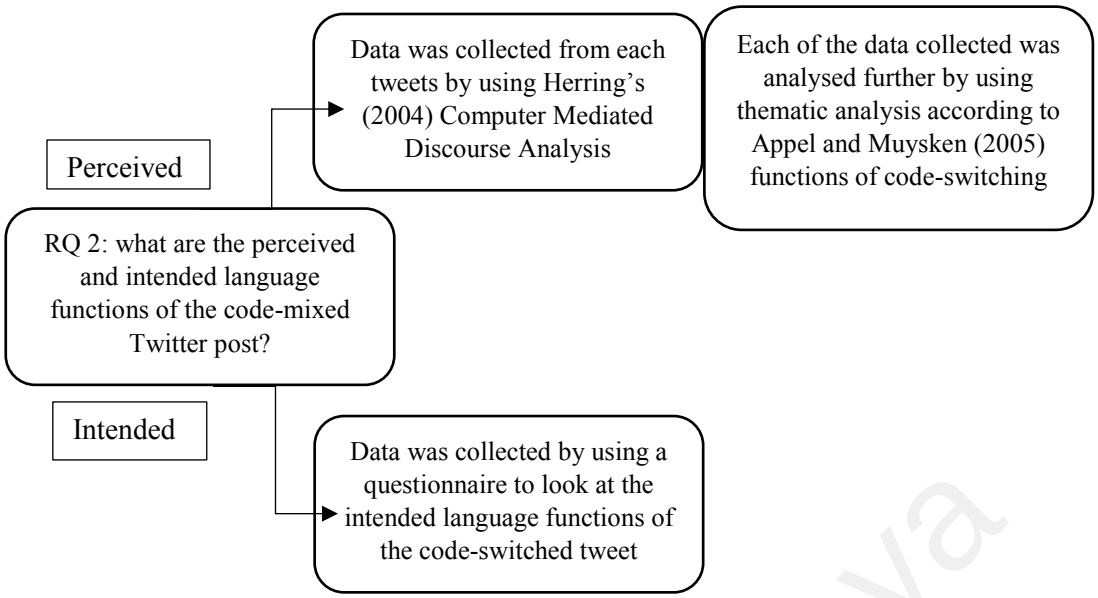


Figure 3.4: Flow of answering the first research question

In order to analyse the data, this study utilizes Herring's (2004) Computer Mediated Discourse Analysis (CMDA) approach to answer both of the research questions. This method has been chosen because Herring (2004) had defined all types of analysis on any online behaviour that is grounded in empirical and also based on textual observation as CMDA approach. Herring (2004), in her writing said that CMDA approach is a set of methods where the researcher possess the freedom to select the best suited method for the data and research questions. As for the coding and counting approach to CMDA approach, Herring (2004) listed a five-step process that is more or less the same as the classical content analysis as shown in Figure 3.5:

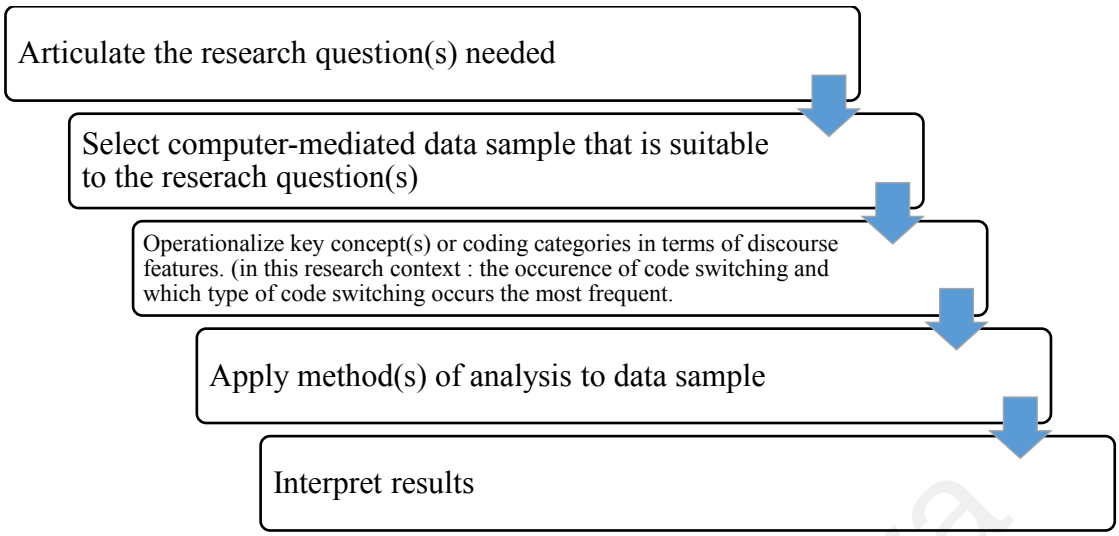


Figure 3.5: Herring's (2004) Computer Mediated Discourse Analysis (CMDA)

Based on the CMDA approach, the study begins by constructing the research questions pertaining to this research. Next, the data was collected and out of 2500 tweets collected, the data sample which contains code-switching was selected and the coding categories was divided into two; Poplack's (1980) types of code-switching and Appel and Muysken's (2005) functions of code-switching. After the coding categories were made, the data sample were counted and the interpreted results were tabulated.

The methodological orientation of CMDA approach is language-focused content analysis that can be both qualitative and quantitative depending on the research questions and in the present study, Herring's (2004) CMDA approach is suitable to be used because the research questions asked focused on the language use and it also involved computer-mediated communication. Each occurrence is recorded and tabulated so that it can be presented in graphs and tables. In order to preserve the reliability of the data collected, the sample tweets are read more than once to increase the researcher's familiarity with the sample. Besides that, the study is also took into account the inter-rater reliability role in analysing the data. The data were analysed by three persons (including the researcher)

to ensure that all tweets are placed under the most suitable category. The other two persons are post-graduate students who had involved closely with the researcher throughout the process of collecting and analysing the data. The researcher and his colleague worked independently during the coding process at first, then the comparison of the coding was done and it was found that the inter-rater reliability was at 95%.

The discussion of the present study is presented by using tables and figures. For every example used, English translations is inserted below the tweets selected alongside the explanations for each tweet used. This study considers every abbreviation used whether it is an abbreviation from English or Malay language. This is because one of the *Twitter's* characteristics is providing the users with limited characters, therefore abbreviations are commonly found on *Twitter* platforms. As the tweets collected from the participants may contain more than one type of code-switching, some of the tweets might also be used more than once in Chapter 4 during the data analysis process.

CHAPTER 4: ANALYSIS AND FINDINGS

This chapter is mainly on providing the overall findings from the data collected. This chapter is divided into 3 sections and the first section of this chapter gives a brief overview pertaining to the data collected from the participants' *Twitter* posts (*Tweet*) and also the number of code-switching that occurred in each participants' tweets. The next section explains the types of code-switching based on Poplack's (1980) model of types of code-switching. The third and the final section of this chapter highlights the functions of code-switching instances by following Appel and Muysken's (2005) model.

4.1 Occurrences of Code-Switching

This study mainly looks at the participants' *Twitter* page. As mentioned in Chapter 3, 50 latest tweets were collected from each of the participants' *Twitter* account making it a total of 2500 tweets. In order to see whether the participants used code-switching in their tweets, all of the collected tweets were analysed thoroughly to detect the presence of code-switching. It can be seen that every participant is using code-switching in their tweets but not for every tweet. Out of 2500 tweets collected as data, only 764 (31%) occurrences of code-switching were found. The statistics was illustrated in Figure 4.1.

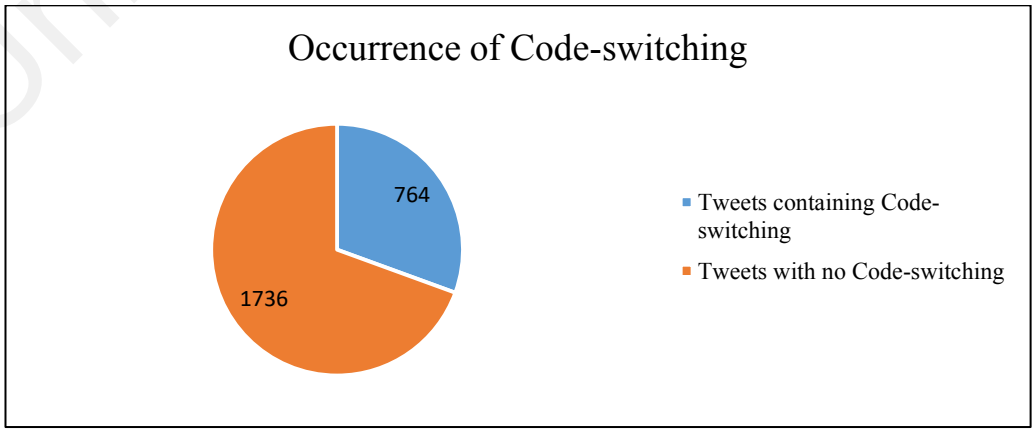


Figure 4.1: Occurrence of Code-switching

Upon analysing the tweets collected, it can be seen that every participant switched codes regularly at some point in their tweet. It is not surprising to find that most of the code-switching occurred used the Malay language as the base language since the Malay language is the participants' first language. This is in line with the study conducted by Shafie and Nayan (2013) where they had found that the bilingual participants of their study will use their mother tongue as the base language and borrow either individual words or strings of words from the second language. Similar findings can be seen in Latisha, Norizul and Nazira's study (cited in Shafie & Nayan, 2013) where they had studied text messaging among Malaysian university students and drawn the same results where their participants combined English individual words and string of words with Malay words. Cárdenas-Claros and Isharyanti (2009) in a two months study of Spanish and Indonesian participants in a chatroom, found that if the topics are about technology and technological terms, it often invokes more code-switching. This shows that bilinguals and multilinguals communicate with others by practising code-switching (Bullock & Toribio, 2009). The next sections will cover instances of code-switching involving individual words and string of words.

4.1.1 Code-switching Instances (Individual Word)

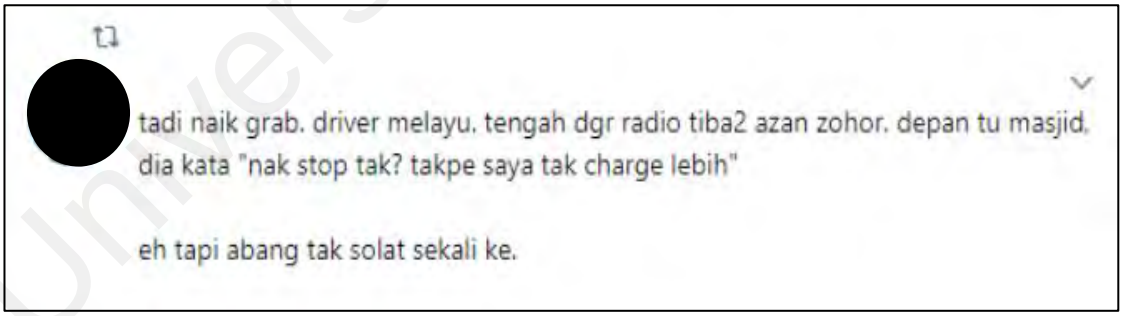
The instances of code-switching occurring at word level are shown in this section as a better representation:

Example 4.1.1a:

Translation: *I swear that girl who cover their aurah is a "bae".*

Note that the participant inserted an informal form of English word "*bae*" in his tweet. According to Lifewire.com, "*bae*" stands for "before anyone else" and it is referred to a boyfriend, girlfriend, a lover, a crush or really anyone considered to be the most important person in another person's life. This shows that the participant is referring to girls who covered their awrah (body parts which must be covered from others) is definitely more attractive according to him.

Example 4.1.1b:



Translation: *Just now, I booked a Grab, Malay driver. Then the Zohor's adhan is on the radio and we came up a mosque and the driver asked "Do you want to make a stop? Don't worry, I will not charge extra" but aren't you joining?*

The participant in this example is sharing his experience using a Grab (a popular taxi-like service) during the Zohor prayer. Zohor is referring to the afternoon prayer of Muslim

and adhan is the Islamic call to worship. The participant used an individual English word in the tweets which is “charge”.

Example 4.1.1c:

Translation: *Wear the shawl and tie it to the side*

In this example, the participant is communicating with another user by replying to the tweet with a joke. The phrase “*ikat tepi”* in the Malay language is referring to the act of taking away meal from a restaurant. The user used the English word “shawl” in his tweet. Since wearing a shawl requires you to tie the end either at the sides or at the bottom, the participant is making a joke by inserting the phrase “*ikat tepi*” in his tweet.

As indicated in the following examples, the data exhibits evidence of code-switching occurrence at the word level where individual words were code-switched in English language and the Malay language acts as the base language. Such instances are similar to the findings in Shafie and Nayan’s (2013).

4.1.2 Instances of Code-switching (String of Words)

Set of examples of code-switching indicating the string of English words (phrase) are shown below to exhibit the evidence of code-switching from the data collected:

Example 4.1.2a:

Translation: *Me: Let's go for a jog in the morning this weekend.*

In this example, the user is inviting his followers to go for a jog in the morning. The user used the words "jog after *subuh* weekend" together side by side. The word "*subuh*" in this tweet is carrying the same meaning as the word "dawn" which also referring to the Morning Prayer for the Muslims before the sun starts to rise in the morning. Therefore, the user is referring to jog in the morning during the weekend.

Example 4.1.2b:

Translation:

A: What's "taman" in English?

B: Park

A: "Taman Perkahwinan" in English?

B: park park kepark keboom kepark keboom kepark keboom.

The example above is one of the instances where humour is used in a code-switching. Such humour involves puns and wordplay inserted in a dialogue. The person A asked what "*taman*" is in English and B answered the question. Then the person A continues by asking "*taman perkahwinan*" which can be directly translated to "wedding park", the person B answered by imitating the sound made by "*Kompang*" which is the traditional musical instrument played at a traditional Malay wedding. The user used the phrase "in English" in the tweet which borrowed a string of English words and inserted in the Malay language as a base language.

Example 4.1.2c:

Translation: *Online, but not for me, let's go to sleep then.*

In this example, the user tweeted by using a whole phrase in English while the other phrase is in the Malay language. This participant directed his tweet to someone who was online but not for him, therefore, in such disappointment, he wanted to go to sleep because the user was secretly hoping that the other person whom he directed his tweet to will try to contact him.

Again, this section once again is in line with the findings from Shafie and Nayan's (2013) study saying that code-switching occurs when the bilinguals borrowed the second language words to be inserted into the first language. Besides that, this whole section also supports the claim made by Androutsopoulos (2013) and Urback (2007) that code-switching exists in social-networking sites. In line with the objective of this study, the data collected was also looked into in terms of types of code-switching.

4.2 Types of Code-Switching

According to Poplack (1980), there are three types of code-switching. The three types are intra-sentential, inter-sentential and also tag switching. Inter-sentential code-switching is when switching occurred between sentences, intra-sentential code-switching is when it occurred in the middle of a sentence or an utterance and tag switching is when a tag, fillers, interjections or any idiomatic phrases are present in a sentence or utterance.

All of the three types of code-switching mentioned were found in the participants' tweets. Some of the tweets consist of more than one type of code-switching, therefore, the same tweet is used more than once for the analysis. The results from this analysis are used to answer the first research question; which type of code-switching occurred the most frequently? The representation of findings from the data collected is presented in Figure 4.2 below.

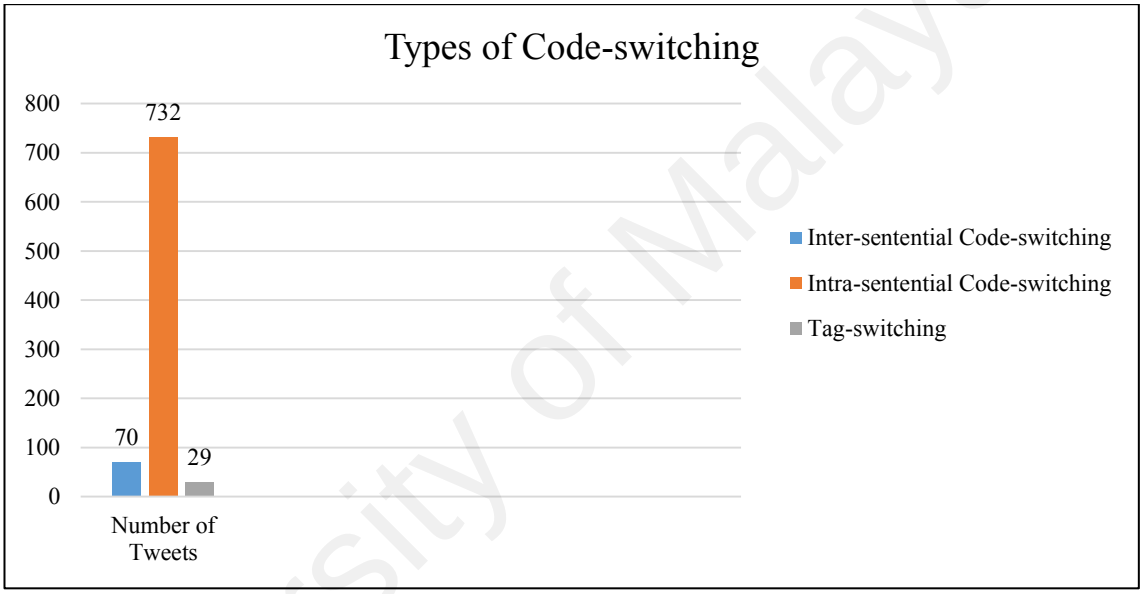


Figure 4.2: Types of code-switching

Based on the analysis, it is found that the intra-sentential code-switching could be found in 732 tweets collected making it the most occurred type of code-switching in this study. Followed by inter-sentential code-switching which only could be found in 70 of the tweets while tag-switching could only be found in 29 tweets. These findings may have been influenced by the limitation of *Twitter* where a user can only tweet within 240 characters only. This may be why most of the tweets collected contain only single sentences and most of the code-switching occurrences can be seen in a sentence. Since most of the type of code-switching occurred is intra-sentential, these findings could also influence the findings for research question 2. This is mainly because, for some of the

language functions mentioned by Appel and Muysken (2005), multiple sentences need to be involved.

The findings of the types of code-switching are the same as Novianti's (2013) and Das and Gamback's (2014) and the only similarity that could be seen in their findings is intra-sentential code-switching is the most occurred type of code-switching where the present study had also found 88% of the code-switching occurred is intra-sentential code-switching. Different findings were presented by Hidayat (2012) where he found that 59% of the code-switching occurrences are inter-sentential code-switching. The difference that could be drawn from these different studies that produced opposing findings is that Hidayat (2012) conducted a study to observe the occurrence of code-switching in *Facebook* among Indonesian students while this study and Novianti's (2013) study is looking at *Twitter*. Das and Gamback's (2014) study on the other hand, is looking at social media text in general where they studied multiple social media platform. Based on the findings found in this study, the types of code-switching found in can also be recognised as a factor that will somehow affect the language functions of code-switching as some of the types and functions will only allow switching to occur at the sentential boundary and some (such as tag switching) will only allow switching at the word level. Examples of each type of code-switching types are shown in the following sub-chapters.

4.2.1 Inter-sentential Code-switching

According to Poplack (1980), this type of switching occurs at the sentential boundaries where one clause or another sentence in different codes were used after the first sentence. Based on the data collected, it can clearly be seen in figure 4.2 that there are 70 instances

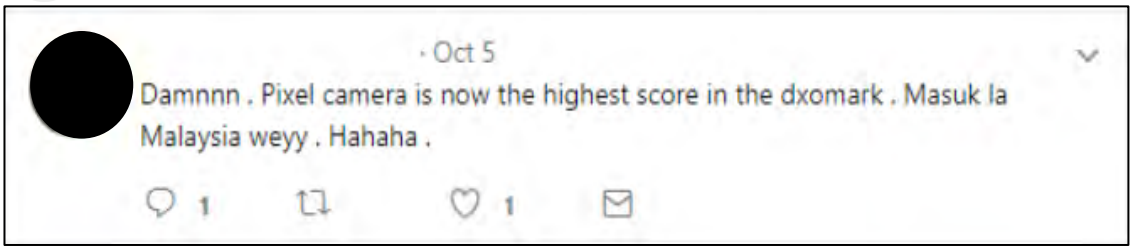
of inter-sentential code-switching that was recorded. This subchapter will provide five examples together with the explanations regarding the data placed in this category.

Example 4.2.1a:

Translation: *From right-midfielder to left-back. I swear it was an unexpected change*

This sample tweet is one of the clear-cut examples regarding the inter-sentential code-switching. The participant tweeted two sentences where both sentences were using two different codes. The first sentence is in English where he told his followers that he had been switched to play in the left-back position from the usual right-midfielder. Then, the participant proceeds to say that it was an unexpected change for him in the Malay language by using the Malay proverb "*bidan terjun"* which carries the meaning of an unexpected replacement/change experienced by someone.

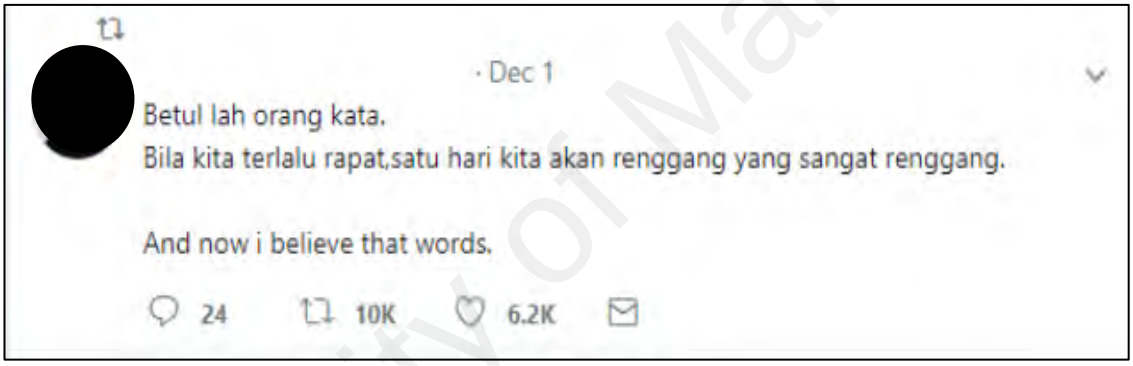
Example 4.2.1b:



Translation: *Damn, Pixel camera is now the highest score in the DXOmark. Please enter the Malaysian Market.*

Based on example 4.2.1b, the sample tweet is about the participant expressing his thoughts on the new Google Pixel phone which scored the highest mark in the DXOmark; a benchmark for cameras. The participant is also expressing his hope that the phone should enter the Malaysian market. This participant was talking about the technological device and code-switching emerged. This is in line with Cárdenas-Claros and Isharyanti's (2009) study where he found that technologically related terms invoke more code-switching and code-mixing.

Example 4.2.1c:



Translation: *It's true what people said, when we're too close to someone, the day will come when that relationship will be a loose one. And now I believed that words.*

In this example, the participant tweeted about a close relationship he once had with someone. He first started by reflecting what others had said to him previously about how a close relationship could somehow be moving further apart. In this tweet, he started the tweet by using two Malay sentences and ended the tweet by switching to a different code which is English.

Based on the examples presented above, inter-sentential code-switching occurred when a person switched between codes, at the sentence level of their utterances. This also

shows that *Twitter* is a social networking site where inter-sentential code-switching will emerge.

4.2.2 Intra-sentential Code-switching

Based on Poplack's (1980) study, intra-sentential code-switching occurs when the user switched to different codes in the middle of a sentence or utterance. Based on the data collected, it can be seen that this type of code-switching is the most occurred type of code-switching among the participants. Based on figure 4.2, this type of code-switching had been recorded 732 times and the number where this type of switching occurred nearly ten times than inter-sentential code-switching. This subchapter will present the example of intra-sentential code-switching.

Example 4.2.2a:

Translation: *Not everyone can accept the concept of "I can live without any friends". Because there are some who are so close like a family.*

The first example is about a tweet directed to the followers to express the feeling towards the concept of having no friends. This participant wanted to say that not everybody can accept such fact as there is a certain friendship that grows very close where they can be seen everywhere together. This tweet consists of multiple sentences and used the Malay language as the base language. When it comes to the word "family" the

participant switched to English instead of using "*keluarga*" which is the Malay translation of the word "family".

Example 4.2.2b:

Translation: *We don't have any Malaysian player, but we have somebody who's close to become a Malaysian Player.*

In the second example, judging by the rugby ball emoticon at the end of the tweet, the participant was referring to his rugby team. The participant used a rugby term "near miss" which refers to the act of missing a close tackle in rugby. As it can be seen in the tweet, the participant used the Malay language as the base language and then borrowed multiple English words in one sentence. The tweet contains the word "player" twice. This could be because of a habitual reason that could be reflected the participant's usage of the "player" instead of "*pemain*" in real life. Then, the tweet also contains the English term widely used in rugby which is "near miss".

Example 4.2.2c:

Translation: *Supporters should not have talked about something that could deconstruct the players' spirit, we should respect each other.*

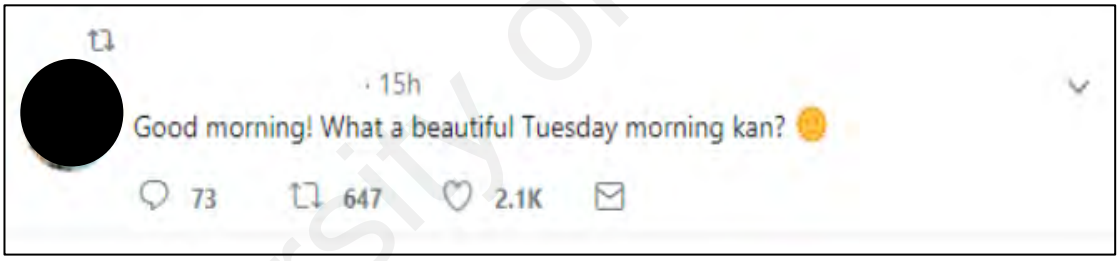
In this example, this *Twitter* user is giving an advice on how the supporters should behave. In this tweet, it can be seen that it only consists of one sentence and the base language used is the Malay language. The participant used the words "supporters" in addressing the audience of his tweet instead of the Malay word *"penyokong"*. Poplack (1980) stated that nouns account for the largest proportion of switching in most of the occurrences. This is one of the examples where the participant switched to English by borrowing the English noun "supporters".

Based on the examples presented in these section, it can be seen that intra-sentential code-switching is present in *Twitter* and occurred the most among *Twitter* user. This is in line with what had been found by Novianti (2013) where she had also found that intra-sentential code-switching is the most occurred among university students in Indonesia. Looking back to the claim made by Poplack (1980) as cited in Chen (2007), the noun is the largest proportion accountable when it comes to switching. This can be seen in Examples 1, 2, and 3 where the switching involved nouns.

4.2.3 Tag-switching

According to Poplack's (1980) types of code-switching, tag-switching is when a tag or a short phrase of another language was inserted into the base language used. Since the addition of tags into sentences contains minimal syntactic restriction, this is the type of code-switching that occurs the most easily and does not break any syntactic rule when inserted into a sentence (Hamers & Blanc, 2000). Even though it is the most easily occurred type of code-switching, it occurred the least which is only 29 times. Tag-switching could also include the use of interjections and fillers. Examples for tag-switching occurrences will be shown below:

Example 4.2.3a:



Translation: *Good morning! What a beautiful Tuesday morning, right?*

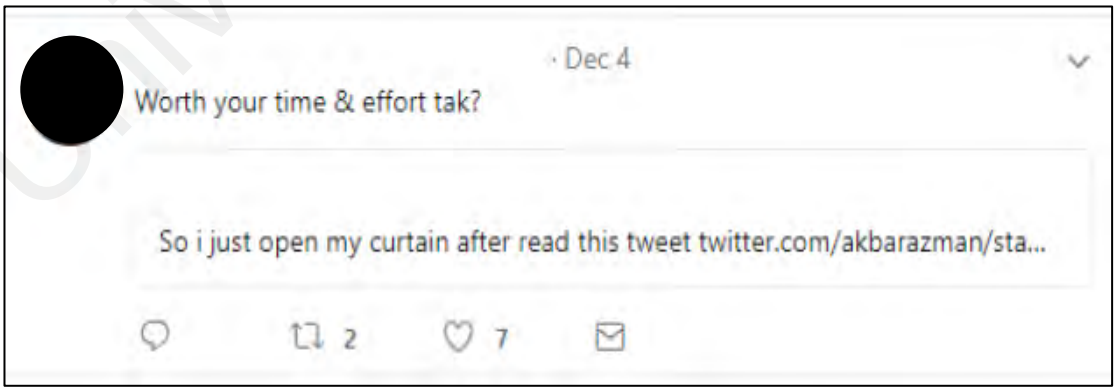
In this tweet, the participant was wishing good morning to the followers. The tweet also proceeds by confirming with the followers on the fact that it is a beautiful Tuesday morning. Notice the use of tag "*kan*". The tag "*kan*" is one of the most common tags used by Malaysian. In this case, the tag "*kan*" refers to confirmation check. Besides that, the tag "*kan*" usually used by Malaysians to carry the same meaning as "Am I right?". In this tweet, the participant used English as the base language and then switched to the Malay language by using the tag "*kan*".

Example 4.2.3b:

Translation: *I truly am treating people equally. Equally means I treat everyone as I want to, not how people want me to treat them.*

In this tweet, the participant clearly wanted to express himself by explaining that he treats people equally by treating them as how he wanted and not how people had wanted him to. In this tweet, it can be seen that the Malay tag "*kot*" was used and was inserted into the base language which is English. The tag "*kot*" carries 2 meaning where it can carry the meaning of uncertainty and can also be used when people wanted to stress their point. In this tweet's context, the participant is stressing the fact that he treated people equally to his followers.

Example 4.2.3c:



Translation: *Does it worth your time and effort?*

In the third example, the participant was communicating with one of his friend who tweeted "so I just open my curtain after read this tweet". This tweet was only to ask a

question whether it worth the time and effort opening the curtain. The tag "*tak*" in the tweet was used to simply change the tweet's purpose to request for information. The tag "*tak*" here carries the meaning of "does it" which is usually responded by a simple yes or no answer. The word "*tak*" itself means "no" in the Malay language, but when it's used as a tag, the meaning has changed.

Based on the examples given above, it can be seen that tag switching occurred in the *Twitter* social media. Even though it was said that tag switching is the easiest type of code-switching to occur (Hamers and Blanc, 2000), in this study, it occurred the least when compared to inter-sentential and intra-sentential code-switching. Intra-sentential code-switching was found to be the most preferred type of code-switching by the participants in this study.

4.3 Functions of Code-Switching

Moving on to the second research question, this question aims to investigate the language function of code-switching that occurs in the sample collected from the participants. This research question was divided into two parts where the first part was looking at the perceived language functions according to the researcher and the second part was looking at the intended language functions by the participants. With reference to Section 2.4, the Appel and Muysken's (2005) functions of code-switching is referred.

Even though the data collected to draw a conclusion on the second part of this research question was done by using questionnaire, every item in the questionnaire contain themes that could lead back to Appel and Muysken's (2005) functions of code-switching. The analysis was done by making the functions as a guideline.

4.3.1 Perceived Language Functions

In this study, all of the language functions proposed by Appel and Muysken (2005) were present in 764 samples collected from the participant. This research found that referential function occurred 43% out of the total 764 making it the most occurred language function. Directive and expressive functions occurred 26% and 15% respectively. This research also found that phatic function where the user making an emphasis by repetition in different codes occurred the least with a score of only 1%. Poetic and metalinguistics functions occurred only 10% and 5 % respectively out of 764 samples collected.

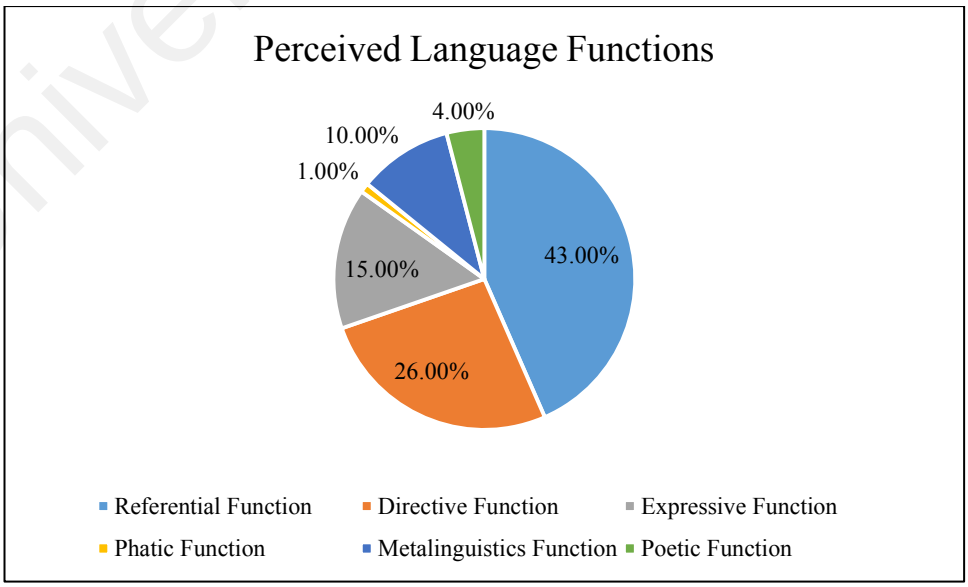


Figure 4.3: Perceived language functions

The findings of this study are in line with Yajing (2013) where she had carried out a study about the use of Chinese-English Code-switching among Malaysian and found that referential function is the most occurred function with a frequency count of 123 out of 146 samples collected. Appel and Muysken (2005) also said that referential function is the most common among bilinguals and multilinguals. This is because as Yankova and Vassileva (2013) said that referential function was used to refer to culture-specific topics, to shortly express oneself and to deal with subjects primarily in other languages. In another study conducted by Shafie and Nayan (2013), they had found that directive and expressive functions are the top language functions found on *Facebook*. In this study, it was found that referential, directive and expressive functions are the top language functions. Figure 4.3 was drawn in order to make the representation of findings from this study. It can be seen that all of the functions stated by Appel and Muysken (2005) are present in this study, therefore further discussions and examples will be made in the next subsections.

4.3.1.1 Referential Language Function

Referential function emerged when the speaker shifts from the first language to second language because of the speaker's lack of knowledge or ability to use a particular word (Appel and Muysken, 2005). They also said that it is also closely related to the topic where the speaker likes to switch to suitable codes depending on the topics. As claimed by Appel and Muysken (2005), this function occurred the most among bilinguals and also multilinguals. This subchapter will provide examples and discussion regarding referential language function occurred from the data collected.

Example 4.3.1.1a:

Translation: *Oh, now there are people who think that SAS students managed to get leaked exam questions beforehand, believe me, we are that smart.*

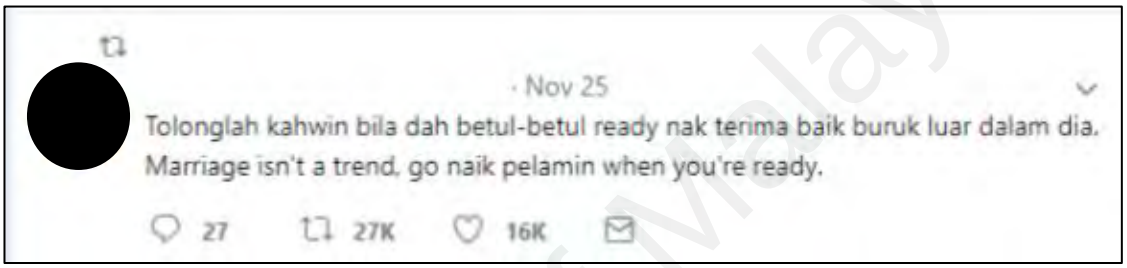
In this tweet, the participant referred to the rumour people had been talking about where the students of his school managed to get the examination questions before the actual examination date making them obtaining good examination results. Note that the participant used "*soalan bocor*" instead of continue to tweet in English. This could be the inability or lack of knowledge of that word in English as he proceeds the tweet by reverting back to English.

Example 4.3.1.1b:

Translation: *Don't you think that when a person treats us nicely, they are into us. Maybe he is friendly with everybody.*

In this tweet, the participant tweeted an advice referring to the topic on “friendliness”. The participant used the Malay language as the base language and the first sentence is in Malay. In the second sentence, the participant started to switch to English language by using the word “maybe” and “friendly”. This could also be a sign of an inability to use the Malay equivalent of the words.

Example 4.3.1.1c:



Translation: *Please get married when you’re ready to accept the good and the bad things about your spouse. Marriage is not a trend, be on the “pelamin” when you are ready.*

In this example, the participant tweeted on the topic of marriage to the followers. This tweet consists of two sentences where the first one is in the Malay language but he switched to English codes by using the word “ready”. Then, the second sentence is in English but he used the word “*pelamin*” which is cultural Malay word referring to the traditional stage where the bride and groom sit on the wedding day. In the second sentence, the participant might have the intention to tweet in English but the inability to use the English equivalent to the word “*pelamin*” had led him to insert the Malay code in his tweet.

The examples mentioned above showed that referential function happened because of the failure to use certain registers but, the referential function can also be linked to the

occurrence where the speakers were already familiar with using the words in original language which is the Malay language. This can be seen as in Chen (2007) where he found that the participants in his study will refer to any Anglophone-culture origin in English rather than any other languages because they are already familiar with the English language. Besides that, the examples in this section indicated that the tweets collected in this study consist of tweets that have referential function of code-switching; the most common language function among bilinguals and multilinguals (Appel & Muysken, 2005) and it is also common in the present study.

4.3.1.2 Directive Language Function

Directive function in code-switching usually occurs when it involves the receiver of the messages or utterances directly (Appel and Muysken, 2005). It is also said that it is mostly used by people to address a specific participant, therefore, making it as "participant-related switching". In this section, it will provide evidence and further elaboration on directive language function in code-switching.

Example 4.3.1.2a:

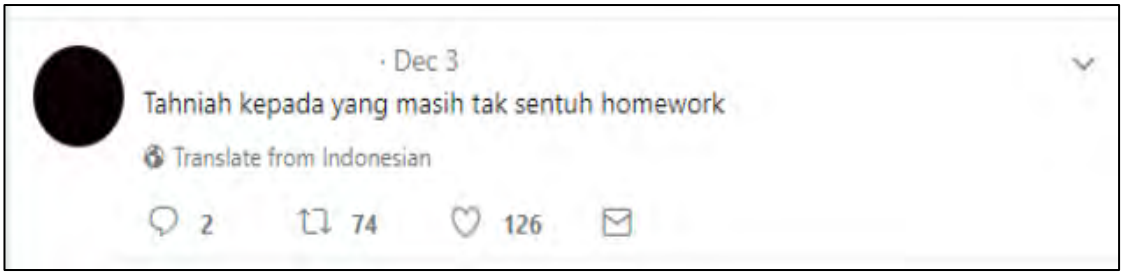
Translation:

1. I want to wear a shawl but oh it's too haram for me

2. Wear the shawl and tie it to the side.

The first example documented the conversation between the participant and one of his friends. The first person stated the desire to wear a shawl but something is holding her back. The participant responded to the tweet by replying it with a joke because the phrase "*ikat tepi*" is the phrase used to refer to taking away meal from a restaurant. In this tweet, the participant switched to use the English term "shawl" because he is responding to his friend who used the word *shawl* first. Therefore, making the code-switching occurred here as a directive.

Example 4.3.1.2b:



Translation: *Congratulations to those who still have not touch their homework.*

In this tweet, the participant used Malay as the base language. The tweet is about congratulating fellow students who have yet to touch their homework given by their teachers for the school holiday. This participant borrowed the English term "homework" and inserted it in the tweet. This tweet clearly showed that this tweet is participant-related as it was addressing to his followers and fellow friends.

Example 4.3.1.2c:

Translation: *We don't have any Malaysian player, but we have somebody who's close to become a Malaysian Player.*

As this tweet had been explained in the previous chapter, it can be seen that this tweet was addressed to his fellow teammates. This could be seen as the participant used a phrase that is widely used in rugby which is "near miss". Besides, this tweet also used the word "*kita*" which is equivalent to the English word "we" which could be interpreted as the participant wanted to add a sense of belonging to a particular group which in this case, his rugby team.

Based on the findings, the directive functions were recorded 200 times (26%) in this study. This makes the directive function as the second language functions that occurred in this study based on the researcher's perception.

4.3.1.3 Expressive Language Function

According to the framework chosen for this study, the expressive function is used when a speaker wanted to make an emphasis on a point and to showcase language diversity (Appel and Muysken, 2005). This language function can also be seen as when a person wanted to express their emotions, thoughts and feelings. Therefore, this language function could be easily detected whenever the emoticons were used as emoticon is a representation of facial expression and feelings. In this subchapter, the evidence, example and discussions will be presented below.

Example 4.3.1.3a:

Translation: *I have watched the trailer for five times and yet I did not feel bored. #infinitywar*

In this tweet, the participant was talking about the newly released trailer for the Avengers: Infinity War movie. This tweet consists of one sentence and the switch from Malay to the English language can be seen in the word "trailer" used towards the end of the tweet. On top of that, this tweet is basically where the participant wanted to express and emphasize the point that the trailer is very entertaining. Therefore, this tweet falls under the expressive function code-switching category.

Example 4.3.1.3b:

Translation: *Clapping with one hand will not make any sound but slapping people who give fake hope will surely create one.*

In this example, it consists of a one-sentence tweet. Instead of tweeting in the Malay language fully, the participant borrowed an English phrase "fake hope" and the word "confirm". This shows that this tweet consists of code-switching. Besides that, this tweet is about the participant wanted to express the frustration towards people who like giving fake hopes to others. Since switching codes in order expressing oneself fall under the expressive function of code-switching, this tweet falls under the same category.

Example 4.3.1.3c:

Translation: *I'm out of form today. *sad emoticon**

This tweet consists only a simple sentence with an emoticon at the end. The participant switched to English code by using the word "on". When talking about the word "on", it

can carry a lot of meaning but in this tweet's context, the word "on" comes from the phrase "on fire" which is related closely to one's performance. Besides, this tweet is about the participant who wants to express his sadness because he is out of form in doing something. The sadness emotion of the tweet could be detected by the use of sad emoticon at the end of the tweet.

Based on the examples given above, it can be said that when the *Twitter* user switched between codes, the reason behind it could be because they wanted to express themselves more and making an emphasis. In this study, the expressive function of code-switching occurred was recorded 113 times out of 764 tweets (15%).

4.3.1.4 Poetic Language Function

Poetic function is where a person switched codes by inserting jokes, puns and also poetic quote in an utterance (Appel and Muysken, 2005). The insertion of the jokes, puns etc. can either be because of wanting to add some sense of humour and also to avoid taboo phrases in one language. This subchapter will show evidences and examples so that discussions on this language function could be drawn.

Example 4.3.1.4a:

Translation:

A: What's "taman" in English?

B: Park

A: "Taman Perkahwinan" in English?

B: park park kepark keboom kepark keboom kepark keboom.

As mentioned previously, a tweet can carry more than one language functions, hence, in this tweet another language function is identified. To simply describe, the user inserts a humorous wordplay in a form of dialogue. Code-switching occurrence can be seen in the conversation as person A inquired the translation of the word "*taman*" in the English language which was answered by person B. The conversation continues by person A asked the translation of "*taman perkahwinan*" which then replied with the answer that imitates the sound of a "*Kompang*" which is a traditional instrument commonly used in Malay culture to celebrate weddings and festivities. This tweet indicates the presence of poetic language functions which can be seen from the use of onomatopoeia. The participant intended the tweet to be humorous and playful, therefore, he added puns or a wordplay in the tweet by using the word "park" to imitate the sound of a "*Kompang*".

Example 4.3.1.4b:

Translation: *Girls, if you guys want a high dowry to be given, marry a football player. Not just only high dowry, cross pass, long pass, everything can.*

In this tweet, the participant switched when addressing his audience which he used the word "Girls". After addressing the audience of the tweet, he used the Malay language as the base language of the whole tweet. The second code-switching found in this tweet is the use of the word "player". This tweet was considered in the poetic language function category because of the wordplay used in this tweet. Looking at the phrase "*hantaran tinggi",* the person was talking about marriage dowry. The rest of the word "*hantaran*" used, later, was talking about passes made in the sport of football. This is because, in the Malay language, the word "dowry" and "pass" was spelt and pronounced the same way. Thus, making the wordplay possible.

Example 4.3.1.4c:

Translation: *If Elizabeth Tan loses weight, she'll be Elizabeth Kilo*

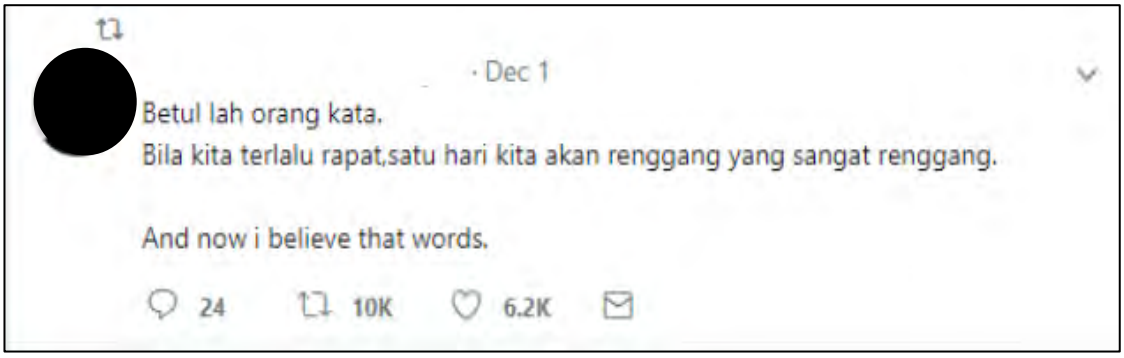
In this tweet, the participant was using the Malay language as the base language and switched to English code by inserting the phrase “lose weight” in the middle of the tweet. The real intention of this tweet is to make a joke. This is because Elizabeth Tan is a popular Malaysian singer and her surname “Tan” carries the same meaning as the unit of measurement “tonne” in the Malay language. The word “kilo” comes from the word Kilogram which is also the measurement unit for weight. Therefore, the participant was simply referring to “if Elizabeth Tonne loses weight, she will become Elizabeth Kilo”.

Based on the sample tweets shown in this subchapter, it can be said that the evidence of poetic language function is present in this study. The poetic function was recorded 36 times out of the total 764 tweets collected (5%). Therefore, it can be said that only a few of the respondents switched codes because of the poetic language function.

4.3.1.5 Metalinguistic Function

The metalinguistic function occurs when the switching happened where a direct or indirect comment was involved (Appel and Muysken, 2005). This type of function is considered when there are quotes, dialogues or speech by others present in the sentence. In this subchapter, the examples and discussions regarding the sample tweet that was perceived as metalinguistic function are presented below.

Example 4.3.1.5a:



Translation: *It's true what people said, when we're too close to someone, the day will come when that relationship will be a loose one. And now I believed that words.*

As it can be seen in this example, the user included a quote of what others had once told him that no matter how close people are, two person can become strangers. Then, he proceeds by adding an additional comment that now he believed those words. This could be from personal experience where the user himself might experience a strained relationship with someone whom he once close with. Therefore, this tweet falls under the metalinguistic function category.

Example 4.3.1.5b:

Translation: *I remember one thing my teacher said, "Guys usually will have a little bit of mercy when it comes to doing mischievous thing, but girls, they go all out". I think the statement is true.*

In this tweet, it can be said that it consists of the dialogue from what this participant's teacher used to say. After that, the tweet ends with a comment added where the participant agreeing to the statement.

Example 4.3.1.5c:

Translation: *When I say "just asking", that means I care about you.*

Example 4.3.1.5c shows a tweet made by the participant where he used English as the base language and he added a quote stating the phrase he used to say to someone. Even though this tweet was directed to somebody else, but after inserting the quote in the tweet, he proceeds with inserting an additional comment by explaining the real meaning of the quote. Thus, making this tweet suitable to be categorised as metalinguistic function.

This subchapter illustrated three pieces of evidence from the data collected to show that in this study's context, the metalinguistic function of code-switching exists. In this study, it is found that 79 out of 764 tweets (10%) collected are metalinguistic function. Therefore, it can be said that metalinguistic function is one of the reasons why *Twitter* users switched codes.

4.3.1.6 Phatic Function

Phatic function as according to Appel and Muysken (2005) is a process of code-switching that happens in order to change the tone of the utterances or sentences. Such process occurs in order to shift the focus of the important points that wanted to be conveyed. It is also stated that in order to emphasize on a point, any repetition regarding the message trying to be conveyed will be considered as a phatic function. This section will provide the examples and discussions to provide a deeper understanding of phatic function switching.

Example 4.3.1.6a:

Translation: **sighs* Batch-mates are posting pictures with their girlfriend. Congratulations to those who are free from homosexual activities like when we were in school.*

In this example, the process of code-switching occurred at the sentential level and it is an example of intra-sentential code-switching. Besides that, it can also be seen that there are two different tones and sentences. The tone for the first sentence is a disappointment as there is a word "*haihh*" imitating a sighing sound at the beginning of the sentence. The second sentence, however, carries a different tone where he congratulated his friends who managed to be free from homosexual tendency which is a common reference for being in a single-sex school. It can also be said that the tone of the second sentence could be

humorous as the participant used the Malay term "*kunyit*" which is a colloquial term for homosexuals in a humorous way.

Example 4.3.1.6b:

Translation: *I hate it when guys show middle finger while posing for a picture. Seriously, major turn off.*

In this example, it can be said that repetition occurred at the semantic level. The tweet begins by saying that the participant hates seeing guys showing the middle finger to pose for a picture. In the second sentence, the participant said that it is a major turn off by referring back to the fact that he hates guys like that. This was done to make an emphasis on the first point. Thus, making this tweet as a suitable example of phatic code-switching function.

Example 4.3.1.6c:

Translation: *Does Instagram know who our crush is? Every time I opened Instagram, my crush's story appears first. At the like section, only my crush's name appeared.*

The third example of the phatic function shows that there is repetition in this tweet. The participant repeatedly used the word "crush" in every sentence. The element of repetition occurs when a speaker wanted to show an emphasis on any kind of messages that he or she is trying to convey (Appel and Muysken, 2005) which in this case, he suspects that Instagram maybe know the identity of the person he is having a crush on.

Based on the examples and discussions provided above, it is safe to conclude that phatic code-switching function is one of the reasons why the participants are switching between codes in this context of the study. This study had found that phatic function is the least preferred reason behind their code-switching where there are only 9 out of 764 (1%) tweets were identified under this category.

The findings for the first part of the second research question discovered that the most preferred language functions in term of code-switching on *Twitter* by Malaysian teenagers are the referential function. The statistic showed that 43% of the tweets collected indicating the use of the referential function in the data. Directive language function came in second with the percentage of 26%, while the expressive language function placed in third with the percentage of 15%.

4.3.2 Intended Language Functions

The second part of the second research question aims to look at the intended language functions for the code-switching occurrences in the tweets collected from the participants. In order to answer this research question, a Likert-scale questionnaire (refer to Appendix 1) was administered. The questionnaire consists of the demographic section and two parts

containing questions regarding their point of view based on their code-switching behaviour. In order to draw conclusions for the intended language functions for the participants' code-switching behaviour, the same framework is used as a guideline to answer this question.

Based on Table 4.1, the data was tabulated according to the responses from the questionnaire (n=50). It can be seen that each item included in the questionnaire was answered by the participants. It can be seen that the two items in the questionnaire have the highest mean value are item 7 and 10 with the value of 3.82 and 3.98 respectively. Based on this finding, it can be said that the participants use code-switching in their *Twitter* because they are comfortable in tweeting in one or more codes and they switched between codes because they think that English items can better express the tone of their tweet.

Table 4.1

Item	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Mean
1. I switched to English in my tweets because of the deficiency in Malay language	9	12	10	16	3	**3.16**
2. I switched to English in my tweets to show my capability to use English.	1	22	19	7	1	**3.3**
3. I switched to English to add a sense of humour to my utterances to draw attention.	5	13	22	8	2	**3.22**
4. I switched to English because it is hard to find proper Malay words	10	9	17	13	1	**3.28**
5. I switched to English to make my followers understand what I meant.	3	20	16	7	4	**3.22**
6. I switched to English because others are doing it.	4	8	22	11	5	**2.9**
7. I feel comfortable in using more than one language within the same tweet.	17	15	10	8	0	**3.82**
8. I switched to English because I cannot think of equivalent Malay words to use	11	16	13	8	2	**3.52**
9. I switched to English in my tweets because that is the way I talk.	9	14	14	8	5	**3.28**
10. I switched to English because the English items can better express the tone of my tweets.	22	10	14	3	1	**3.98**

The second part of the questionnaire does not provide enough information pertaining the language functions behind the participants' use of code-switching on *Twitter*. Therefore, the third part of the questionnaire was constructed to ask an additional question in order to understand more about the language functions of the participants' code-switching on *Twitter*. The additional question is "among the reasons which have been shown in part 2, which one do you think is the main reason why you switched from Malay to the English language in your tweet?" This question was asked in order to provide an in depth understanding of the use of intended language functions of code-switching among the participants. To answer this question, the participants are required to choose from the item 1 to item 10 to see the main reason they switched codes in their tweet. Table 4.2 below shows the frequency percentage of the data collected from the third part of the questionnaire.

Table 4.2: Participants' responses of the second part of the questionnaire

No.	Item	Frequency (%)
1	I switched to English in my tweets because of the deficiency in Malay language	8%
2	I switch to English in my tweets to show my capability to use English.	0%
3	I switch to English to add a sense of humour to my utterances to draw attention.	6%
4	I switch to English because it is hard to find proper Malay words.	8%
5	I switch to English to make my followers understand what I meant.	14%
6	I switch to English because others are doing it.	6%
7	I feel comfortable in using more than one language within the same tweet.	20%
8	I switch to English because I cannot think of equivalent Malay words to use	6%
9	I switched to English in my tweets because that is the way I talk.	4%
10	I switched to English because the English items can better express the tone of my tweets.	28%

Table 4.2 shows that all of the participants have their own main reason why they switched between codes in their tweet. These 10 items could be reflected to four out of six language functions that was proposed by Appel and Muysken (2005); referential, directive, expressive and poetic function. Phatic and metalinguistic functions were not included to be a part of the questionnaire because these functions can only be identified by looking closely at the sentence structure of the tweet and could not be reflected by the participants' intention. Out of the 10 items asked in the questionnaire, Item 2 was not picked by the participants as their main reason why they switched between codes.

Item 10 was chosen by the majority of the participants. Item 10 indicated that the participants switched to the English language to express the tone of the tweet better. This is similar to the definition of expressive functions of code-switching proposed by Appel and Muysken (2005). Next, Item 7 is the second most picked by the participants. 20% of the participants said that they feel more comfortable tweeting using more than one language. The word comfortable here can be referred to the situation where the participants do not have to think hard in order to use any word that they do not have the knowledge of. This item can be reflected to the referential function where it has been defined by Appel and Muysken (2005) as a switch that occurred because of the inability to use a certain word in the dominant code. Moving on to the third most picked reason why the participants switched codes is the Item 5 where it stated that they switched to the English language to make their followers understand what they were trying to say. 14% of the participants agreed that they switched to English to accommodate their audience to understand the tweets better. Appel and Muysken's (2005) definition of directive switching function states that directive switching is mostly used to address a specific group of participants.

Item 1, 4, 7 and 8 all will lead back to the referential language functions where in these items, it says that they switched codes because of the lack of knowledge to use certain words in Malay. Item 1 and 4 both shared the same percentage which is 8% and Item 8 is only 6%. 4% of the participants stated that the main reason why they switched between codes in their tweets is because that is the way they talk in real life. The participants stated that their behaviour on *Twitter* was reflected by the way they talk in real life. Surprisingly, only 6% of the participants agreed that they switched to different codes because they wanted to add humour in their tweets (Item 3). Nevertheless, this shows that poetic function is one of the reasons why the participants in this study opted to code-switching.

Based on the different findings from different studies conducted on different social media sites, it can be said that different social media with different types of communication will produce a different result in term of the functions of code-switching. This could be seen by looking at Choy (2011) where he found that the referential, expressive and metalinguistic functions are the top three language functions of code-switching in *Facebook* compared to the findings found in the present study which were conducted on *Twitter*. Besides, types of language could also be considered as one of the factors affecting the language function. This can be seen as Sihombing (2014) conducted a study on *Twitter* among Indonesian participants who code-switched between English and Bahasa Indonesia and found the participants felt that the English language is the best language to share and express their ideas compared to Bahasa Indonesia (expressive function) which is similar with the present study but in this study, the participants felt that English is better in order to express the tone of their utterances compared to the Malay language.

As a summary, based on the data collected from the questionnaire, the intended language functions by the participants comprise of 4 out of 6 language functions as proposed by Appel and Muysken (2005). It can be observed that referential function (42%) is the most used function by the participants of the study on *Twitter*. Item 1, 4, 7 and 8 are all in line with Appel and Muysken's (2005) definition of the referential function. The expressive function (34%) comes in the second place, followed by the directive function (18%) which comes in third. Finally, the poetic function (6%) is the least picked reason for the participants' code-switching. The top three intended language functions are in line with the findings from the perceived language functions. Therefore, it can be concluded that referential, directive and expressive language functions are the commonly used functions when it comes to code-switching on *Twitter* among the Malaysian teenagers.

CHAPTER 5: CONCLUSION

5.1 Brief Summary of Findings

The findings of this study showed that the most common type of code-switching occurred on *Twitter* among Malaysian teenagers is intra-sentential code-switching. Inter-sentential code-switching is the second-most occurred type while tag-switching is the least occurred type of code-switching. This shows that most of the code-switching found in the present study happened within a sentence. Therefore, this study had managed to provide findings in term of the types of code-switching among the selected participants.

Besides that, the findings also showed that the top three language functions behind the occurrence of code-switching are referential, directive and expressive functions. The referential function was identified to be the most preferred function in this study and it matches with Pairveen and Aslamm's (2013) and Yajing's (2013) study where they studied code-switching phenomenon in *Facebook* posts. This showed that most of the participants switched between codes because of the lack of knowledge in using certain words in their first language. According to Appel and Muysken (2005) referential function happens when a speaker shifts to a different code because of the lack of knowledge in using certain words.

The findings of this study is important to shed light on the way teenagers use code switching on *Twitter* and the development of CALL as this study shed some light to the understanding of code-switching in social media. This is because *Twitter* could be one of the detection tools in order to dive deeper into understanding the students' language capability such as the students' level of understanding related to the use of part of speech. Since the referential function is most likely to be the reason behind the code-switching

occurrences between bilinguals, the teaching and learning process should be planned and strategized around it in order to tackle the lack of knowledge to use certain words. For example, *Twitter* can be used as a tool to identify the lack of understanding of a word usage by the students. Once identified, the educators could strategize their lesson by incorporating *Twitter* and shift the focus towards the learning of vocabulary, for instance, such strategy can help to tackle the problem concerning to the misuse of words, an inability to form a sentence etc.

5.2 Implications of the study

Reflecting to the findings, it is found that each of the participants in this study switched between codes at some point while they were tweeting. This shows that all of the participants possess the ability to tweet in more than one code. This corresponds to Blom and Gumpers (1972) claim saying that in order for code-switching to occur, competency of each of the codes to be used is mandatory. Therefore, teachers should pay more attention towards students' social media activities because as it can be seen in this research, the participants are showcasing their abilities of constructing tweets by using multiple codes and linguistic variants. This is in line with Shafie and Nayan (2013) where they said that the students' language production is the most authentic when it comes to social media. Therefore, by observing students' social media activities, teachers can see their students' real potential and weaknesses so that a more comprehensive teaching process could be constructed.

5.3 Suggestions for Future Research

Since the participants of the present study are only males, future researchers can consider making a comparison of the types of code-switching occurred and also the language functions of tweets between two genders. Additionally, interviews could also be conducted individually in order to explore why the participants switched between codes. On top of that, in order to make sure that the results from the study can be extended to the general population, the number of the participants can also be increased. Furthermore, future researchers can focus the part of speech that mostly occurred among the participants. Finally, for those who are interested to conduct a research of code-switching in CMC, a research in different CMC media could be done in order to provide new information regarding the usage of code-switching in CMC in Malaysia.

5.4 Conclusion

This study is only a preliminary attempt in order to investigate the use of code-switching among Malaysian Teenagers on *Twitter*. As mentioned in earlier chapters, Malaysia is a multiracial country where most of the people are bilinguals. Each races were represented by their own language making code-switching in daily utterances is inevitable. Though there are conflicting opinions regarding the pros and cons of code-switching, but the present study managed to extract some valuable insights that could be used in order to strengthen the effectiveness of teaching process in the classroom. As the language production in social media is considered to be the most authentic, educators perhaps could incorporate some aspects of social media in their instruction planning in order to capitalize on social media as a platform for authentic English language practice. In conclusion, it can be found in this study that Malaysian teenagers switched between codes on *Twitter* but it is not something to be fret of as the findings of this study suggests

that most of them switched between codes because of they are comfortable in tweeting by using more than one code.

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